



OSCON MF

6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS OF
STUDENTS AND YOUNG PHYSICIANS

PRECISION, TECHNIQUES AND
NEW CHALLENGES:

MASTERING PLASTIC AND RECONSTRUCTIVE SURGERY

4TH APRIL - 6TH APRIL 2024

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2024

BOOK OF ABSTRACTS



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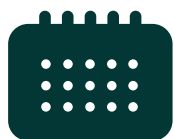
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GENERAL INFORMATION



DATE

April 4th - April 6th , 2024



VENUE

Faculty of Civil Engineering and
Architecture Osijek

Vladimira Preloga 3, Osijek



TOPIC

Precision, techniques and new
challenges:

Mastering Plastic and
Reconstructive Surgery



GUEST ATTENDANCE POLICY

All registered participants are
welcomed to all events and lectures.

Wearing official conference badges is
obligatory for entering any events.



LANGUAGE

English

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Clinical Medical Center Osijek

6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
OF STUDENTS AND YOUNG PHYSICIANS



WELCOME MESSAGE

April 4TH - April 6TH

2024

MATEA SMAJIĆ

President of the
Organising Committee



Dear esteemed guests and honoured participants,

Welcome to the sixth edition of OSCON – Osijek Student Congress. It is with great pleasure and excitement that we gather here to provide biomedical science students and young doctors with the opportunity to expand their knowledge and practice skills through our engaging lectures and interactive workshops.

OSCON serves as a place for professional growth, allowing individuals to enhance their scientific expertise and build confidence in presenting at large conferences. This year, our focus is Plastic and Reconstructive Surgery, a theme that delves into innovative techniques and advancements in modern medicine.

I would like to take this opportunity to thank the Dean of School of Medicine Osijek and all professors for their help and support in organization. Special thanks go to the entire Organising and Scientific Committee for all the effort they have put in. Thank you for your passion, teamwork and professionalism in bringing everything together seamlessly.

I encourage you to make the best out of this congress, and of course, to enjoy it!

MATEA LUKIĆ

President of the
Scientific Committee



Dear Colleagues,

on behalf of the Scientific Committee, it gives me great pleasure to welcome you all to our sixth edition of the OSCON Congress. This year, we're focusing on the dynamic field of Plastic Surgery. With its constant innovation and life-changing procedures, it's an area that captivates healthcare professionals worldwide. Our experts will share their insights, challenges, and most fascinating cases, offering invaluable knowledge to all.

Through our workshops, students will have the chance to improve their practical skills, vital for their future medical careers. I'm confident that OSCON 2024 will inspire, educate, and foster connections that will shape the future of our healthcare. I am proud to announce that this year we have more participants than ever before. Moreover, most of them submitted abstracts as active participants, aligning with our main goal since OSCON's inception: bringing together students from around the country and beyond to exchange scientific novelties.

Join us as we explore the ever-evolving landscape of plastic surgery through engaging discussions, hands-on learning, and memorable experiences. I look forward to meeting you and wishing you great success at this Congress!

LUKA MEDIĆ

President of the
Student Council



Dear Colleagues, lecturers and participants!

It is a great honor and an indescribable pleasure to greet you and welcome you to the sixth annual edition of OSCON. Like science itself, we strive to progress day by day, and this year's OSCON is proof that every experience gives rise to new ideas. This year, we have prepared something that you have never seen before.

Bigger than ever, the Congress brings a large number of professional workshops, lectures by renowned experts, and most important of all, your scientific and clinical papers! We have an incredible few days ahead of us that we will all remember, which will certainly contribute to your personal and professional development.

To be part of the organization of such significant event is a great honor, and I have had this honor for the third year in a row, so I cannot end this opening speech without thanking everyone who participated in the organization in any way this year, as well as in previous years! I thank you all for coming, and I wish you a pleasant stay!

6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
OF STUDENTS AND YOUNG PHYSICIANS



ABOUT US

April 4TH - April 6TH

2024

FACULTY
OF
MEDICINE
OSIJEK



The Faculty of Medicine of University of Osijek is the youngest medical faculty in Croatia. It was officially opened in 1968 as a branch of the School of Medicine in Zagreb, and in 2018 it celebrated 20 years as the independent medical faculty. The largest and main base of the faculty is the University Hospital Centre Osijek. The Faculty of Medicine in Osijek is the only medical faculty in Croatia that shares the same campus with its main teaching base, which is located within the University Hospital Centre complex.

Apart from a three-year undergraduate programme and two-year graduate study programmes (Biomedical-Laboratory Technologies) and a six-year long first-degree study programme in Medicine, the Faculty of Medicine offers several postgraduate specialist study programmes and doctoral study programme.

The aim is to provide students the highest level of knowledge and training adequate for the professions they are pursuing. In addition, the Faculty of Medicine Osijek has defined main research areas and has been profiled by several interdisciplinary groups that link basic and clinical studies (translational medicine). We would also like to point out that, our two professors' emeriti Antun Tucak and Savo Jovanović contributed to the faculty with their work and effort.

The Josip Juraj Strossmayer University of Osijek is a university located in Osijek, making it the flagship institution of higher education in Slavonia, and one of the largest and oldest universities in Croatia. It was founded in 1975 and it is organized in 12 faculties, 4 departments and one academy. University is a medium-size in comparison to other European Universities. It is ranked as the Croatia's fourth best university among the 49 ranked institutions of tertiary education from the country.

University of Osijek has been developing into a modern European institution of higher education, and it is becoming a regional centre of knowledge, research and excellence. All efforts are directed towards the constant increase of teaching and studying quality.

The University offers a high student standard concerning accommodation, learning facilities and other student services.

Since over 20 000 students study at University of Osijek, did you know that the city itself is known as the City of Students?

UNIVERSITY
OF
OSIJEK



CITY
OF
OSIJEK



Osijek is a modern Central European city with 17 city parks and gardens which make Osijek one of the greenest cities in Croatia. The City of Osijek is also famous for secession (a variation of art nouveau). The promenade along the Drava river is one of the longest walking trails in Croatia. Given the city of Osijek's long history, there's a variety of sights such as Tvrdra, a fortified part of the city from the 18th century.

Some of the most valuable examples of Baroque architecture in Croatia, such as the statue of Holy Trinity and General's-headquarters are located in Tvrdra and were printed on 200 kuna bills, which was Croatia's official currency prior euro.

The tradition of higher education in Osijek exists since 1707 and today our university with its 17 faculties and departments is one of the most important scientific centres in Croatia.

Croatia is a country on the north-western edge of the Balkan peninsula and has a population of 4,05 million people and covers an area of 56,594 km². Five countries border Croatia: Bosnia and Herzegovina, Hungary, Montenegro, Serbia, and Slovenia, and it shares a sea border with Italy. The country offers a long coastline with over a thousand islands along its coast at the Adriatic Sea (Mediterranean Sea), a variety of medieval towns and villages, and a pleasant Mediterranean climate.

The capital of Croatia is Zagreb, placed in the northwest of the country. Croatia's second-largest city is Split, situated on a peninsula in the southern part of Adriatic Sea. Remaining two largest cities are the Port of Rijeka located on the northern shore of the Adriatic Sea and Osijek in the far east of Croatia. Other well-known towns include Dubrovnik, Makarska, Poreč, Rovinj, Opatija and Zadar. Croatia has declared its independence of Socialist Federal Republic of Yugoslavia (SFRY) in 1991.

The Croatian War of Independence started right after that, ending four years later with Croatia as a victor. Despite Croatia's hard history that has left enormous consequences on the country, it could not affect on Croatia's natural beauty that contains some of the prettiest natural wonders in the world! Alongside with its natural beauty, culture. Cultural Heritage and beautiful coastline are only some of the reasons why Croatia is certainly worth visiting.

CROATIA



6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
OF STUDENTS AND YOUNG PHYSICIANS



PROGRAMME

April 4TH - April 6TH

2024

THURSDAY

APRIL 4TH

09:00 - 11:00

REGISTRATIONS Lobby (G)

11:00 - 11:30

OPENING CEREMONY Hall 0.2 (G)

CROATIAN LANGUAGE OPENING SPEECH

11:45 - 13:15

LECTURE SESSION I. Hall 0.2 (G)

11:45 - 12:15

ASSIST. PROF. ZDRAVKO ROJE, MD, PHD

Update of burn care comparing with EBA guidelines for burn care (European Burns Association) - Retrospective presentation of burn disaster management on the island Great Kornat, Croatia, August 30, 2007

12:15 - 12:45

VEDRAN ZUBČIĆ, MD

Indivisibility of the Cosmetic and Reconstructive procedure in Plastic Surgery

12:45 - 13:15

PROF. RADO ŽIĆ, MD, PHD

Current concepts in breast cancer treatment and reconstruction

13:15 - 14:00

APPETIZERS BREAK Lobby (G)

14:00 - 15:45

STUDENT SESSION I.

Hall 0.2, Faculty Hall, Aula Media (G,A,A)

16:00 - 19:15

WORKSHOPS I.

16:00 - 17:30

SESSION I.

SCRUB IN 11.50 (G)

KINDER SURPRISE 11.53 (G)

DEALING WITH HEARTBREAKS 111.45 (G)

17:45 - 19:15

SESSION II.

RUSH HOUR Skills Cabinet (M)

NO ONE DIES ON MY WATCH Skills Cabinet (M)

20:30

PUB QUIZ Campus Caffè

FRIDAY

APRIL 5TH

09:00 - 11:00

STUDENT SESSION II.

0.2 Hall, II.48, II.49, III.47 (G)

09:45 - 11:00

CITY TOUR Lobby (MEET-UP) (G)

OPTIONAL

11:30 - 12:30

LECTURE SESSION II. Aula Magna (A)

11:30 - 12:00

IVAN MUMLEK, MD

Principles of Head and Neck microvascular reconstructions

12:00 - 12:30

ASSIST. PROF. ALEKSANDAR MILENOVIĆ, MD, PhD

Aesthetic Medicine: Yesterday, Today, Tomorrow

12:30 - 13:45

LUNCH BREAK Lobby (G)

14:00 - 15:00

LECTURE SESSION III. Aula Magna (A)

14:00 - 14:30

DEJAN KEČKEŠ, MD

The pectoralis major muscle flap

14:30 - 15:00

PROF. JOON PIO HONG, MD, PhD

Introduction to Lymphedema Surgery (ZOOM online lecture)

15:30 - 18:45

WORKSHOPS II.

15:30 - 17:00

SESSION I.

FLAP-TASTIC WORKSHOP III.43 (G)

THAT'S A WRAP III.44 (G)

KEEP IN TOUCH III.45 (G)

17:15 - 18:45

SESSION II.

SCALPEL, PLEASE III.46 (G)

PALS FOR LIFE Skills Cabinet (M)

CUSTOM MADE University Hospital Centre Osijek (M)

22:00

OSCON PARTY Bure Bar Pub

SATURDAY

APRIL 6TH

09:00 - 11:00

STUDENT SESSION III.

0.2 Hall, II.48, II.49, III.47 (G)

10:30 - 11:25

APPETIZERS BREAK Lobby (G)

11:30 - 12:45

LECTURE SESSION IV. Aula Magna (A)

11:30 - 12:15

PROF. MILOMIR NINKOVIĆ, MD, PHD

Sculpting the future: The Power of Modern Plastic, Aesthetic and Reconstructive Surgery

12:15 - 12:45

ASSOC. PROF. TOMISLAV FRANIĆ, MD, PhD

Mirror: Friend or Enemy?

13:00 - 15:15

WORKSHOPS III.

13:00 - 14:00

SESSION I.

GEN(IO)US INSIGHT III.43 (G)

CHASING BUTTERFLIES III.44 (G)

HEAL AND SEAL III.45 (G)

14:15 - 15:15

SESSION II.

STAYIN' ALIVE III.46 (G)

ENGAGE & EXCHANGE INTERACTIVE DISCUSSION
Pathophysiology of the burns injury 0.2 (G)

15:30

CLOSING CEREMONY Hall 0.2 (G)

16:15

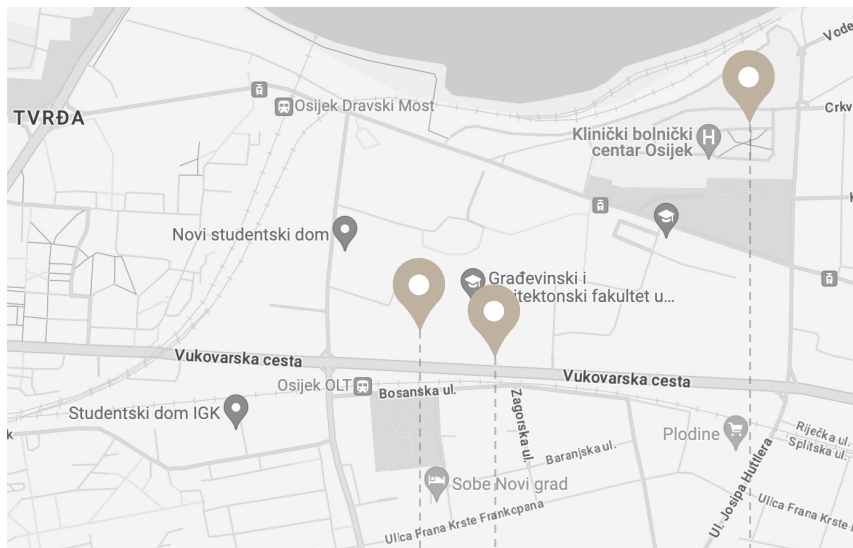
WINE TOUR Josić Winery

A - Faculty of Agrobiotechnical Sciences Osijek

G - Faculty of Civil Engineering and Architecture Osijek

M - Faculty of Medicine Osijek

OSCON 2024 VENUE LOCATIONS



Faculty of Agrobiotechnical
Sciences Osijek

VLADIMIRA PRELOGA 1,
OSIJEK



Faculty of Civil Engineering
and Architecture Osijek

VLADIMIRA PRELOGA 3,
OSIJEK



Faculty of Medicine Osijek

JOSIPA HUTTLERA 4,
OSIJEK

6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
OF STUDENTS AND YOUNG PHYSICIANS



LECTURERS

April 4TH - April 6TH

2024



LECTURE TITLE:

Sculpting the future: The Power of Modern Plastic, Aesthetic and Reconstructive Surgery

Prof. Milomir Ninković, MD, PhD, born in Sokolac, Bosnia and Herzegovina, completed his residency in general surgery at University Clinical Center Sarajevo, Bosnia and Herzegovina in 1985 after graduating from School of Medicine University of Sarajevo in 1982. He was board certified as specialist in Plastic and Reconstructive Surgery in 1989.

From 1990 to 1992 he worked as an attending surgeon at the Department of Reconstructive & Plastic Surgery University Clinical Center Sarajevo and finished his PhD study at University of Sarajevo in 1992. In 1992 he started working at the Department of Plastic & Reconstructive Surgery, University Innsbruck, Austria and in 1995 he became a professor at the Medical University Innsbruck. From 2003 to 2023 he was head of the Department of Plastic, Reconstructive and Hand Surgery, Burn Centre, Hospital Bogenhausen, Technical University Munich, Germany. Prof. Ninković was president of the European Association of Plastic Surgeons (EURAPS) in 2020 and 2021.

As a result of his distinctive expertise, he received several awards, one of them being Award "For the Best Paper Presented at the Eight Annual Meeting of the European Association of Plastic Surgeons (EURAPS)". He is author of numerous publications and book chapters and he gave lectures at many European and USA Universities. Currently, Prof. Ninković is the head of the Department of Plastic, Aesthetic, Reconstructive and Hand Surgery at PRIORA International Medical Centre in Čepin, Croatia.

Prof. Joon Pio Hong, MD, PhD, MA holds the position of Professor of Plastic and Reconstructive Surgery at the University of Ulsan College of Medicine and Asan Medical Center.

Certified in Trauma, Hand and Plastic Surgery, he accomplished his Bachelor of Science degree from University College of Medicine in Yonsei following with MS and PhD degrees from the Graduate School of Yonsei University. Supplementarily, he received his M.B.A. on medical management from University of Southern California at Marshall School of Business.

Active in professional associations like the World Society of Reconstructive Microsurgery, the American Society of Plastic Surgery and Korean Society of Plastic Surgery, his centre of attention lies in diabetic foot reconstruction, microsurgery and wound healing. Serving on the advisory board of numerous journals, including Plastic and Reconstructive Surgery and the International Wound Journal, Dr.Hong has made notable contributions with over 160 publications and 24 book chapters.

Recognized for his amazing achievements, he received the „Godina Travelling Fellowship“ from the 2015 American Society of Reconstructive Microsurgery. Dr.Hongs extensive recognition worldwide led to him being invited to present his work in over 80 countries and serving as a visiting professor at more than 20 institutions.

LECTURE TITLE:

Introduction to Lymphedema Surgery





LECTURE TITLE:

Current concepts in breast cancer treatment and reconstruction

Prof. Rado Žić, MD, PhD, graduated with honors in 1989 from the Faculty of Medicine, University of Zagreb. Specializing in General Surgery at KBC "Rebro" Zagreb, he pursued subspecialization in Plastic, Reconstructive, and Breast Surgery at KBC "Rebro" and KB "Dubrava" Zagreb. His international training included clinics in Germany, Switzerland, Great Britain, Austria, and the USA.

Currently, he serves as the Head of the Clinical Institute for Hand and Reconstructive Surgery at KB "Dubrava" and an associate at "Radiochirurgia" Zagreb, contributing significantly to cancer treatment. After earning the title of Primarius in 2011, he serves as a professor and assistant professor in the Department of Surgery, focusing on biomedicine and health in the field of Clinical Medical Sciences.

His impact is notable in Croatia's Reconstructive Surgery, introducing perforator flaps, and globally advocating advanced breast cancer treatments. Locally, he shaped the breast and hand team at KB "Dubrava," and on a broader scale, influenced Plastic Surgery specializations for the Croatian Ministry of Health. He played a crucial role in establishing a postgraduate course in Plastic Surgery at the University of Zagreb. Since 2005, he has maintained excellence as an examiner for the European Board of Plastic, Reconstructive, and Aesthetic Surgery (EBOPRAS) and serves as president of the Croatian Society of Plastic, Reconstructive and Aesthetic Surgery (CSPRAS).

After graduating from the School of Medicine, University of Zagreb, assoc. prof. Franić completed his residency in Psychiatry. He is one of the first doctors to complete a subspecialty of Pediatric and Adolescent Psychiatry, as well as Forensic Psychiatry in Croatia. In 2001, he became the chief of The Child and Adolescent Psychiatry Unit at KBC Split.

Dr. Franić is an associate professor at the University of Split, School of Medicine, as well as Faculty of Kinesiology, Arts Academy and Faculty of Humanities and Social Sciences.

Besides promoting Pediatric and Adolescent Psychiatry in Croatia, assoc. prof. Franić has had multiple international clinical experiences in University Hospitals in Dublin (Ireland), London (UK) and Leuven (Belgium).

His work area is versatile and varies from adolescent crisis', anxiousness, emotional damages, behavioral issues, and family issues to ADHD, depression, and psychotic disorders. In his clinical work, he became particularly interested in adolescence, which resulted in his scientific interest for: psychological pain in adolescence, suicidal thoughts in adolescents and the transition from psychiatric treatment in adolescents to psychiatric treatment in adults. He uses behavioral and cognitive techniques with his patients.

LECTURE TITLE:

Mirror: Friend or Enemy?



ASSOC. PROF.
TOMISLAV FRANIĆ, MD, PhD



LECTURE TITLE:

Retrospective presentation of
burn disaster management on
the island Great Kornat,
Croatia, August 30, 2007

Assist. prof. prim. Zdravko Roje, MD, PhD was born in 1951 in Split, graduated from the University of Zagreb Medical School in 1975. He specialized in Plastic, Reconstructive and Aesthetic Surgery, acquiring a doctoral degree. In Ljubljana, he completed training in Reconstructive Microsurgery, Hand Surgery and Breast Reconstruction. Subsequently, he pursued specialized courses at renowned institutions such as UCLA, USC and Johns Hopkins in the United States. Currently holding the title of „Primarius“, he serves as a lecturer at the Department of Surgery, School of Medicine, University of Split. Dr.Roje is a permanent court expert in his field.

His primary interests enclose a broad spectrum, including Aesthetic and Reconstructive Surgery, Anti-aging Medicine and degenerative procedures. Dr.Roje has achieved remarkable success, contributing chapters to medical textbooks and publishing research in esteemed journals and offering a comprehensive approach to chronic seroma complications following abdominoplasty.

Beyond his clinical practice, Dr.Roje is actively involved in scientific societies, assuming leadership roles in the Croatian Society for Burns and the Mediterranean Burns Club. His commitment to education and research underscores his influence in advancing the field of Plastic Surgery. With an illustrious career spanning decades, Dr.Roje continues to make significant contributions to both clinical practice and academic pursuits.

Assist. prof. Aleksandar Milenović, MD, PhD was born in Osijek, Croatia where he graduated from elementary and high school. He moved to Zagreb to study Medicine and graduated with top marks in 1994. The fine structures of the head and neck became a complete challenge for Dr. Milenović who decided to specialize in Maxillofacial Surgery. Parallel to this, he also completed a Plastic and Reconstructive Head and Neck Surgery specialization. He obtained his master's degree from the University of Zagreb, School of Dental Medicine with a thesis on Nervous dysfunction after neck dissection. He furthered his education, at both the theoretical and practical levels, in the world's top plastic surgery centers in New York, Glasgow, London, and Vienna.

Today, he is not only a successful physician, but also a professor at the Department of Maxillofacial Surgery at the Faculty of Dental Medicine and a member of the Croatian Society for Maxillofacial, Plastic and Reconstructive Head and Neck Surgery and the European Association for Cranio-Maxillo-Facial Surgery.

He regularly shares his knowledge at specialized world conferences. He has participated as a lecturer in over 100 domestic and world congresses. He is fluent in English and German. He is happy to be able to save lives in the Clinical Hospital Dubrava in the morning and apply his knowledge and experience at Imed Polyclinic in the afternoons. For him, work is a creative challenge that results in the pleasure of every patient.

LECTURE TITLE:

Aesthetic Surgery:
Yesterday, Today, Tomorrow





LECTURE TITLE:

Indivisibility of the Cosmetic and Reconstructive procedure in Plastic Surgery

Vedran Zubčić, MD, was born in Osijek in 1973 and completed his medical studies at the Medical Faculty of Osijek, University of Zagreb in 1998. He specialized in Maxillofacial Surgery at the Clinic for Facial, Jaw, and Mouth Surgery as part of KB Dubrava where he continued with sub-specialist training in Plastic and Reconstructive Surgery of the head and neck.

Currently, Dr. Zubčić is the head of the Institute for Maxillofacial and Oral Surgery at Clinical Medical Center Osijek. He also works as an assistant at the Medical Faculty of Osijek, where he teaches the undergraduate course "Otorhinolaryngology and Maxillofacial Surgery with Dentistry." Dr. Zubčić is fluent in English and has a vast publication record, with numerous papers published in indexed journals (Scopus, PubMed, and Web of Science) and an additional 50 papers presented at various congresses around Croatia. His research areas focus on craniofacial and Maxillofacial Surgery, tumors, squamous cell carcinoma, and facial trauma.

Additionally, he holds influential positions in professional organizations such as the Croatian Medical Chamber and the Croatian Society for Maxillofacial and Plastic Surgery of the Head and Neck. Dr. Zubčić is also an esteemed member of the European Academy of Facial Plastic and Reconstructive Surgery (EAFPRS). His expertise covers Microvascular Reconstruction, Plastic and Aesthetic Surgery, Head and Neck tumor Surgery, and Traumatology of the facial skeleton.

In 2009, dr. Mumlek graduated from the Faculty of Medicine Osijek, J.J. Strossmayer University of Osijek. He completed his internship in Health Center Osijek, after which, in 2012, he started to work in Clinical Medical Center Osijek in the Department of Oral and Maxillofacial Surgery.

In 2018 he completed a specialty of Maxillofacial Surgery, and in 2022, a subspecialty of Plastic Surgery of the Head and Neck. During his residency, he participated in many local and international congresses, of which the most significant was in microvascular surgery in Glasgow. Also, he participated in many international meetings of Oncological Surgery in New York, Rome, and Toronto.

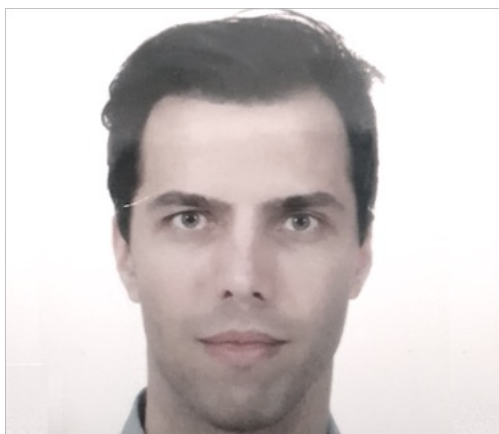
Recently, him and his colleague, were the first two Croatian maxillofacial surgeons who completed the European Association for Cranio-Maxillo-Facial Surgery (EACMFS) postgraduate programme for Head and Neck Surgical Oncology.

He is currently an assistant in the Department of Otorhinolaryngology and Maxillofacial Surgery at Faculty of Medicine Osijek. Dr. Mumlek is a member of the Croatian Society of Maxillofacial, Plastic, and Reconstructive Surgery. He is a coauthor in a few scientific papers and is finishing his postgraduate studies in Biomedicine and Health from the Faculty of Medicine Osijek.

LECTURE TITLE:

Principles of microvascular reconstructions in Head and Neck Surgery





LECTURE TITLE:

The pectoralis major muscle flap

Dejan Kečkeš, MD, is a Plastic Surgeon Registrar/SpR at the University Hospital Center Sisters of Mercy, demonstrating a strong passion for surgery and specialized expertise in breast procedures.

He graduated from the School of Medicine, Josip Juraj Strossmayer University, where he continues to advance his knowledge as a PhD student. Throughout his illustrious career, dr. Kečkeš has accumulated a wealth of experience. He began his professional journey at the Internal Medicine Department at University Hospital Centre Osijek. Afterward, he moved to Emergency Medicine in Poreč, assuming the role of a team leader, while also performing as GP in Umag, Head Doctor of the UEFA Under 19 Championship, and Official Football Team Doctor of FC Jadran. Subsequently, he transitioned to München Ambulance, later earning promotions to EMS and ICU transports.

Since 2016 his career shifted towards plastic surgery. He worked as a Senior House Officer in Plastic Surgery, Medicine, and Trauma&Orthopaedic and Stroke Units in 5 different cities in the UK. 2020 highlighted his title as a Plastic Surgery SpR and a year after SpR Plastic Reconstructive and Aesthetic Surgery in University Hospitals Coventry and Warwickshire NHS Trust. On top of that, he spent six months refining in Advanced Reconstructive Microsurgical Fellow - Plastic Reconstructive and Lymphatic Surgery in Taiwan, China, and SpR Plastic and Reconstructive Surgery at St George's University Hospitals.

Zlatan Ibradžić, president and reformer of the Student Surgical Section, completed his medical studies in Zagreb in 2018. Upon graduation in 2023, he participated in seven courses, including the Hand Fracture Course, OSPIS (Microsurgery Course) and Euro Trauma Course.

As a clinical observer in the Department of Plastic and Reconstructive Surgery, he had the privilege of visiting and undergoing study at the Cleveland Clinic Main Campus in Ohio, USA.

He pursued further training through internships at English hospitals such as Broomfield Hospital, Queens Medical Center (Maxillofacial Surgery Department), and Nottingham University Hospitals (Department of Burns and Plastic Surgery), as well as Croatian hospitals in Sisak, Dubrovnik, and Zagreb.

He conducted research titled "Hot Water Bottles," analyzing the occurrence of scalds in relation to the time of the year, heating season, and the impact of increased energy costs. In 2016, he was honored with the Rector's Award for Outstanding Teamwork for his contribution to the creation of a Pathological Atlas spanning two volumes.

Additionally, in 2018, he received the Award for Outstanding Work from the Student Surgical Society. Most recently, in 2020, he was recognized as the Team Member of the Month.

ROUND TABLE DISCUSSION:

Pathophysiology of the burns injury



6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
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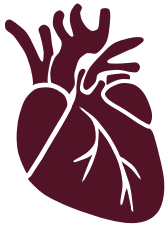


WORKSHOPS

April 4TH - April 6TH

2024

DEALING WITH HEARTBREAKS



WORKSHOP: CORONARY ARTERY BYPASS GRAFT SIMULATION

LEADERS: Matija Drinković, MD; Stjepan Cvetković, MD

INTRODUCTION: Wouldn't it be great if we could give you a chance to become a cardiac surgeon for a day? Could you imagine bringing the operating room to you? During this workshop, our cardiac surgeons will guide you through the creation of proximal anastomosis of the coronary artery bypass grafting using a saphenous vein.

DESCRIPTION: To make this workshop as realistic and useful as possible, we will be using swine hearts with a part of the aorta still attached and human saphenous veins as a graft. You will see microvascular surgical instruments specifically used for such procedures, and it is up to you to try and save your patient.

CHASING BUTTERFLIES

WORKSHOP: VENIPUNCTURE AND INTRAVENOUS CANNULATION

LEADERS: assist. prof. Petar Šušnjara, MSc, PhD; Valentina Kurevija, MSc; Marija Bićan, BSc; Dino Uglješić, RN

INTRODUCTION: Venipuncture is the collection of blood from a vein which is usually done for laboratory testing, while I.V. cannulation is a technique in which a cannula is placed inside a vein to provide venous access for administration of fluids and medications. It seems like a simple procedure but... What if something goes wrong? What if you miss the vein? What if you don't collect enough blood or if you mix blood samples and vacutainers? Answers to this and many other questions you will be able to find out on the Venipuncture workshop!

DESCRIPTION: Exercise of venipuncture and I.V. cannulation skills on the artificial and human hand.



THAT'S A WRAP !

WORKSHOP: IMMOBILIZATION, FRACTURE, WOUND AND BURN MANAGEMENT

LEADERS: Red Cross Osijek



INTRODUCTION: During medical school, you are taught to heal people inside the hospital. But what to do in case you find yourself in an outside world, with injured people without medical instruments, medicine, or devices? This workshop, guided by experienced instructors, promises to provide you hands-on learning experience necessary to help you respond confidently and decisively in situations you may find yourself one day and help someone in need.

DESCRIPTION: Through a combination of practical demonstrations and simulation exercises, participants will gain knowledge and practical skills. The workshop will cover a range of topics, including immobilizations, simple and compound fractures, burn management, wound care and other techniques.

GEN(IO)US INSIGHT

WORKSHOP: ARTHROSCOPY SIMULATION IN KNEE JOINT PATHOLOGY

LEADERS: Branimir Šušak; Patrik Torbarina; Klara Sabljak; Dario Smirnjak; Afan Ališić

INTRODUCTION: Have you ever had a chance to master arthroscopy procedure on a 3D-printed simulator? Come and try our latest innovation, first of its kind, followed by hand made models for knot tying technique!

DESCRIPTION: Organized by the Student Society for Orthopedics and Traumatology, School of Medicine Zagreb; this workshop aims to familiarize participants with the biomechanics of the knee joint, common pathology of knee and the arthroscopic treatment of injuries. It also includes a practical demonstration of conventional treatment methods such as operative intervention for ACL injuries using a 3D-printed model called "ORTHOdevice" with arthroscopic instruments. The workshop is structured into stations, allowing participants to observe all previously mentioned techniques.



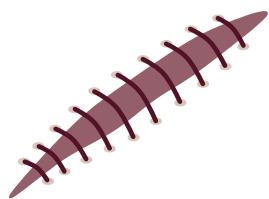
SCRUB IN

WORKSHOP: BASIC SUTURING

LEADERS: Marija Jelić Vuković, MD, PhD (Polyclinic Osijek)

INTRODUCTION: Embark on a journey of learning and skill development in our basic suturing workshop, designed to equip attendees with the foundational knowledge and practical expertise needed to confidently handle suturing instruments and perform basic wound closures with precision and confidence.

DESCRIPTION: In this workshop, students will practice suturing techniques on surgical pads with pre-cut wounds, improving their skills in wound closure under simulated surgical conditions. The workshop is especially helpful for younger students, since it will provide them with the basics, they will build on later in surgical classes!



SCALPEL, PLEASE

WORKSHOP: ADVANCED SUTURING

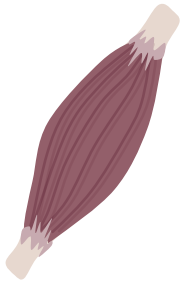
LEADERS: Zlatan Ibradžić, MD; Student Surgical Society (School of Medicine in Zagreb)

INTRODUCTION: Is it your dream to become a plastic surgeon, welcoming new challenges and dealing with interesting cases every day? Do you think you have what it takes to master all the techniques and achieve the much-needed precision? Test your skills and learn new surgical methods!

DESCRIPTION: At the workshop, you will get a chance to improve your suturing skills by learning new and more complicated techniques, frequently used in plastic surgery. Guided by an experienced plastic surgeon, you will learn how to work on larger skin defects, tendons and much more, deepening your expertise while staying at the forefront of surgical practice. Exercises will be performed on different parts of the swine.



KEEP IN TOUCH

**WORKSHOP:** SIMULATION OF FLEXOR TENDON RUPTURE

LEADERS: assist.prof. Vjekoslav Wertheimer, MD, PhD;
assist.prof. Ivan Koprivčić, MD, PhD; Vjekoslav Kopačin, MD, PhD

INTRODUCTION: Flexor tendon rupture is a condition where the tendons that control finger movement tear or snap, often resulting from trauma or repetitive strain. This injury can lead to difficulty bending the affected finger or fingers, impacting daily activities and requiring prompt medical attention for proper treatment and rehabilitation.

DESCRIPTION: In this simulation of flexor tendon rupture, participants will have the opportunity to gain hands-on experience in repairing torn tendons through suturing techniques on a 3D-printed finger model and real tendons. Through guided practice and expert supervision, students will develop crucial surgical skills essential for addressing this intricate injury in clinical settings.

RUSH HOUR

WORKSHOP: MASTERING RUSH PROTOCOL ULTRASOUND WORKSHOP

LEADERS: Đidi Delalić, MD; Karlo Kedačić, MD

INTRODUCTION: When a patient is in shock, everyone is in a RUSH. But with the RUSH protocol ultrasound skills you'll gain in this workshop, you'll confidently navigate these critical moments.

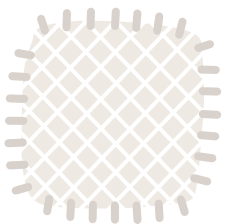
DESCRIPTION: In this workshop, you'll master the HI MAP mnemonic approach and Weingart's RUSH exam. Through interactive learning, you'll perform a focused ultrasound to evaluate cardiac function and volume status. Gain the confidence to identify life-threatening conditions. Join us to become proficient in RUSH protocol ultrasound.



FLAP-TASTIC WORKSHOP

WORKSHOP: LOCAL SKIN FLAPS

LEADERS: Petra Šmit Takač, MD



INTRODUCTION: A skin flap is a partly detached piece of skin used to cover the injury or surgical defect that is too wide for the edges to be brought together directly. There are several types of local flaps: advancement flap, rotation flap, transposition flap, interpolation flap. When using local skin flaps, one needs to be knowledgeable about cutaneous vascular anatomy and tissue biomechanics.

DESCRIPTION: Do you want to experience what it's like to be a plastic surgeon? During this workshop, you will learn how to assess a wound and plan a flap of sufficient size! Our plastic surgeons will guide you through the successful reconstruction of skin defects using several local flaps.

NO ONE DIES ON MY WATCH

WORKSHOP: ESSENTIAL RESUSCITATION SKILLS WORKSHOP

LEADERS: Karlo Kedačić, MD; David Palijan; Josip Kajan

INTRODUCTION: Welcome to our workshop where you'll learn vital skills in resuscitation. Gain the ability to save lives in critical moments. This hands-on session ensures you're prepared for emergencies.

DESCRIPTION: Practice setting up venous access, interpreting rhythms, and using advanced airway devices. With simulation equipment and real-life scenarios, gain confidence in your ability to respond effectively. From basic bag-valve-mask ventilation to advanced intubation techniques, learn to be a lifesaver in any situation. Join us and become a guardian of life - where no one dies on your watch.



KINDER SURPRISE

WORKSHOP: CHILDBIRTH AND DELIVERY IN AMBULANCE VEHICLE

LEADERS: Ivan Vilović, MSc; Matej Jurković, MSc

INTRODUCTION: How will you react when a pregnant woman starts to deliver a baby in front of your eyes outside a hospital? You are called to help and make sure that both mom and baby are fine and healthy, but what can you do with so little equipment in the emergency vehicle? Are you ready to panic, if not you should be, but there is a bright side, some tricks can be learned, are you ready to learn all of them?

DESCRIPTION: In this workshop participants will learn what kind of equipment they have in the ambulance vehicle and what can they do when facing baby delivery in the vehicle. They will have the opportunity to learn and practice common and uncommon situations of baby delivery without help from a hospital, how should they react, and how to take care of both mother and baby.



STAYIN' ALIVE

WORKSHOP: ADVANCED LIFE SUPPORT (ALS)

LEADERS: assist. Prof Jelena Kovačević, MD, PhD; Antonela Kunac, MD; Mario Matić, MSN, RN; Tomislav Prša, BSN, RN; Pero Vrebac, MSN, RN

INTRODUCTION: Do you think you know everything about ALS? Now it's time to test your skills! How to perform cardiopulmonary resuscitation? How to defibrillate? What rhythms are suited for defibrillation? What medication can be used? When? Are there some reversible causes of cardiac arrest? If any of the questions caught your attention, don't miss this workshop!

DESCRIPTION: Medical professionals from the Institute of Emergency Medicine of Vukovar-Srijem County will guide you through real-life scenarios and show you how to approach them as medical personnel using ALS skills. To make the workshop as realistic as possible, teams will be formed - each with three participants: a doctor, a medical technician or an ambulance driver - just like in the real world! Improve your skills by giving chest compressions, ventilating the patient, and recognizing which cardiac rhythm is suitable for defibrillating and which medication is suitable for use!



CUSTOM MADE



WORKSHOP: POSSIBILITIES OF VIRTUAL SURGERY AND 3D-PRINTING IN HEAD AND NECK RECONSTRUCTIVE SURGERY

LEADERS: Vjekoslav Kopačin, MD, PhD; Vedran Zubčić, MD; Ivan Mumlek, MD; Ana Kvolik Pavić, MD; Luka Šimić, MS

INTRODUCTION: Do you want to take a journey to the world of Reconstructive Surgery and join our team? Surgical resection and reconstruction were based on surgeons' experience, and the final decision was made intraoperatively. With the advancement of medical technologies, especially imaging technologies, and the further advancement of computer systems, advanced visualization techniques, including 3D printing and virtual or mixed reality are the logical next step in medical imaging of pathology.

DESCRIPTION: The process of reconstruction, decision-making and virtual surgical planning will be introduced for each participant by taking the reconstructive examples from clinical practice using Add-On FFF Gen for open-source CAD software Blender. Preoperative steps for precise microvascular reconstruction include color Doppler and CT angiography vessel mapping of the microvascular flaps. 3D-printed facial skeleton, calvarial models, bone cutting guides and personalized alloplastic implants will be shown as well.

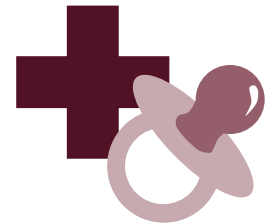
PALS FOR LIFE

WORKSHOP: PEDIATRIC ADVANCED LIFE SUPPORT (PALS)

LEADERS: Ema Poznić, MD; Nora Pušeljić, MD; Student Society for Pediatrics (Faculty of Medicine Osijek)

INTRODUCTION: PALS is a specialized program aimed at healthcare professionals who care for critically ill or injured children. This comprehensive course focuses on advanced resuscitation techniques and pediatric-specific algorithms to improve outcomes in pediatric emergencies.

DESCRIPTION: The training, which is normally available only to doctors, is brought to you in the form of a workshop. This workshop is designed to equip students, as future healthcare providers, with essential skills in managing pediatric emergencies. Through interactive training sessions and simulated scenarios, participants will develop proficiency in assessing and treating critically ill or injured children, preparing them for effective clinical practice in pediatric care settings.



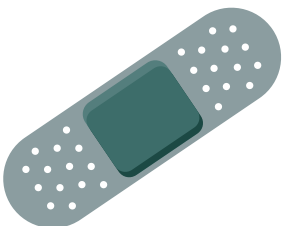
HEAL AND SEAL

WORKSHOP: PRIMARY WOUND CARE

LEADERS: Student Society for Surgery „INCISIOS“ (Faculty of Medicine Osijek)

INTRODUCTION: During the workshop, we will go through all the steps on how to approach a patient who arrives at the emergency department for primary wound care. You will learn how to take an anamnesis, examine a wound and differentiate which wounds can be sutured and when the sutures should be removed!

DESCRIPTION: The practical part involves washing and setting up the sterile field, applying local anesthetic and suturing the wound. Students will have the opportunity to master basic sutures and knots used in surgery.



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OF STUDENTS AND YOUNG PHYSICIANS



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2024

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BASIC SCIENCE

BS01 Functional and Neuroanatomical evidence in line with a mouse CGRP model support the involvement of peptidergic Edinger-Westphal nucleus in migraine

Ammar Al-Omari, Balázs Gaszner, Dóra Zelena, Gabriella Juhász, Viktória Kormos

BS02 A new potential therapeutic target in bacterial keratitis

Inez Bosnyak, Balazs Meresz, Dorottya Molitor, Dora Reglodi, Alexandra Vaczy

BS03 Influence of hydrogen peroxide on doublecortin expression in neural stem cells

Marko Gavrančić, Dinko Mitrečić, Dražen Juraj Petrović

BS04 The functional and morphological damage to Edinger-Westphal nucleus observed in a Parkinson's disease model cannot be reversed by benzerazide-levodopa treatment

János Kocsá, Ákos Szabó, Bence Pýtel, Balázs Gaszner

BS05 Transient receptor potential ankyrin 1 (TRPA1) ion channel in the centrally-projecting Edinger-Westphal nucleus may diversely modulate the symptoms of posttraumatic stress disorder in mice

János Konkoly, Viktória Kormos, Balázs Gaszner, Dóra Zelena, Erika Pintér

BS06 Examination of the pontine micturition center (Barrington's nucleus) in a mouse model of chronic stress

Milica Milicic, Amalie Lian, Balázs Gaszner, Erika Pintér, Viktória Kormos

BS07 Investigation of the central projecting Edinger-Westphal nucleus in a mouse model of Alzheimer's disease

Petra Prókay, János Konkoly, Dóra Zelena, Viktória Kormos, Erika Pintér

BS08 The TRPA1 ion channel is downregulated in the centrally projecting Edinger-Westphal nucleus in a mouse model of chronic alcohol consumption

Izabella Török, Ammar Al-Omari, Balázs Gaszner, Erika Pintér, Viktória Kormos

BS09 Retention of magnetic particles in breast cancer cells spheroids

Petar Vranjić, Matea Jagodić, Mladen Vuković, Domagoj Majetić, Barbara Vijetić

CASE REPORT

CR01 Noonan Syndrome: a Case Report and Diagnostic Approach

Adriana Adamović, Tin Gabrić, Sara Bognar, Inga Abramović, Sanda Huljev Frković

CR02 Cerebral Venous Sinus Thrombosis in a young female: a case report

Maja Alaber, Bruna Bušić, Tina Stanković, Maša Sorić

CR03 Huge ascending aortic and arch aneurysm associated with chronic Stanford type A aortic dissection

Ana Anđelić, Patricia Barić, Igor Rudež

CR04 Isolated sternal fracture after a car accident; a blessing and a curse of airbags and seatbelts

Maria Bara, Lucija Dafne Blažević, Lucija Nevena Barišić, Klara Bardač, Tamara Murselović

CR05 A neonate with abdominal distension: what could it be?

Klara Bardač, Lucija Dafne Blažević, Tomislav Luetić, Ruža Grizelj, Maja Pavlović

CR06 Mimicry and diagnostic challenges: a case of visceral artery pseudoaneurysms

Borna Barić, Maro Bjelica, Petar Brlas, Tina Čukman, Ana Barišić

CR07 Rare presentation of an anal polyp in a child with Waardenburg syndrome

Patricia Barić, Ana Anđelić, Sanda Huljev Frković

CR08 How the rapid metabolism of CYP2C19 and CYP2D6 affects the dose adjustment of psychopharmacological therapy in patients

Sara Bedeniković, Ana Bilić-Pavlinović, Antonio Marić, Dominik Piršjlin, Robert Likić

CR09 Myocardial bridging in the LAD coronary artery presented in a young football player

Ana Bilić-Pavlinović, Antonio Marić, Sara Bedeniković, Karla Pavlović, Martina Lovrić-Benčić

CR10 Reconstructive surgery in severe midfacial hypoplasia and mandibular skeletal deformity

Maro Bjelica, Borna Bregović, Hana Čurtović, Lucija Dobrić, Emil Dedić

CR11 Thickening of the sigmoid colon wall without a significant elevation of inflammatory parameters: Is it always a tumor?

Džana Bjelk, Tomislav Brajković, Zdenko Bilić, Ivana Pavić, Ivan Budimir

CR12 Treatment with liraglutide can reduce bodyweight and increase fertility in women

Lucija-Dafne Blažević, Lucija Nevena Barišić, Klara Bardač, Maria Bara, Tomislav Božek

CR13 A rare case of peritonsillar abscess in post-tonsillectomy patient

Luka Blažević, Ozana Miličević, Ante Vuković, Leo Matijašević, Stjepan Brnić

CR14 Tackling Refractory Ascites with transjugular intrahepatic portosystemic shunt insertion

Martin Bobek, Lucija Bosnić, Katarina Breščanović, Marta Krpan, Ana Ostojić

CR15 Clinical presentation of post traumatic injury due to gunpowder blast - a 40 year follow up

Karla Bodakoš, Dino Pavičić, Marta Bolješić, Marko Sablić, Antonio Kokot

CR16 A rare facial nerve schwannoma presenting with vestibulocochlear symptoms

Sara Bogнар, Džana Bjelić, Jelena Benčić, Adriana Adamović, Lana Kovač-Bilić

CR17 Unrecognized Lynch syndrome

Nives Bokulić, Antonia Alfirević, Drago Baković, Ana Adžić, Silvoja Čuković-Čavka

CR18 3D printed cranioplasty: Case report of eosinophilic granuloma in a 17-year-old boy

Sara Bonet, Sara Đukić, Barbara Haviček, Vedran Zubčić, Nenad Koruga

CR19 Interstitial lung disease and respiratory insufficiency caused by antisyntetase syndrome – a case report

Josip Bošnjak, Fran Naletilić, Petar Brlas, Mateja Janković Makek

CR20 Transcatheter mitral and tricuspid valve repair – cascade approach in a patient with severe mitral and tricuspid valve regurgitation

Tomislav Brajković, Josip Bošnjak, Krunoslav Budimir, Joško Bulum, Jadranka Šeparović Hanzevački, Vlatka Rešković Lukšić

CR21 Trapezius Muscle Flap Resurgence: Addressing Severe Carcinoma Relapse with Surgical Expertise

Borna Bregović, Marija Bukvić, Doris Čeović, Hana Čurtović, Emil Dedić

CR22 The dangers of vascular complications following liver transplantation - a case report

Klara Brekalo, Oliver Marcel Koltay, Dongyan Zhang, Ivan Strinić, Igor Petrović

CR23 Two Birds with One Stone: Simultaneous Remission of Non-Hodgkin Lymphoma and Metastatic Breast Carcinoma

Eva Brenner, Luka Bulić, Natalija Dedić Plavetić

CR24 Extracorporeal septoplasty in severe posttraumatic nasal septum deformity: Case report

Martin Brežanski, Elena Cahun, Marija Bukvić, Petar Brlas, Andro Košec

CR25 Minimally invasive surgical treatment for paralytic lagophthalmos: a pioneering modified gold weight insertion procedure

Petar Brlas, Maro Bjelica, Marija Čorić, Lucija Dobrić, Jelena Juri Mandić

CR26 Challenges in the diagnosis of painful ophthalmoplegia

Ivana Brić, Lucija Kadleček, Valentina Kečkeš, Barbara Kokić, Zvonimir Popović

CR27 Von Hippel-Lindau Syndrome and Pancreatic Cysts: A Spotlight on Tumor Surveillance and Early Detection

Krunoslav Budimir, Tomislav Brajković, Marija Bukvić, Marija Čorić, Mirjana Kalauz

CR28 Tracheoesophageal fistula as a complication of radiotherapy in lung cancer

Fran Bukulin, Tara Ovjić, Ivana Canjko

CR29 Bilateral retinal detachment as a rare manifestation of syphilis

Marija Bukvić, Antonela Geber, Nenad Vukojević, Tomislav Jukić

CR30 A Case Report: Manifestations of systemic sclerosis in a male patient

Marissa Bura, Klara Đambić, Sara Đuričić, Ivona Franjić-Tubić, Jasminka Mlas Ahić

CR31 Anesthesia in plastic surgery - couldn't be easier?

Sara Burić, Ivan Borlinić, Maja Ovitanić, Helen Marie Chiddenton, Vilena Vrbanović Mijatović

CR32 A case of seemingly simple cellulitis

Bruna Bušić, Maja Alaber, Tina Stanković, Maša Sorić

CR33 Breast reconstruction using deep inferior epigastric perforator (DIEP) technique

Helen Marie Chiddenton¹, Anto Dujmović

CR34 Managing Second-Degree Burns: Multidisciplinary Approach and Recovery of a Patient with 50% Total Body Surface Area Burns

Tina Ojduk, Paula Stepanić, Lea Cofek, Lucija Črnjević, Aleksandra Pirjavec Mahić

CR35 Caesarean scar ectopic pregnancy – What if medical termination of pregnancy does not work?

Lazarela Cuparić, Dinka Pavičić Baldani

CR36 Treatment of patient with lung cancer and ALK rearrangement proven in metastasis

Tara Ovjić, Fran Bukulin, Ivana Canjko, Ilijan Tomaš

CR37 Morgellons disease – myth or real disease?

Lucija Ovitković, Melita Vukšić Polić, Ivana Roksandić-Križan

CR38 From Lawn Mowing to Coma: An Unfortunate Sequence of Events

Laura Čajo, Ivan Đapić, Dora Gašparović, Ana Šmit, Dajana Đapić

CR39 Successful treatment of polytraumatized patient with open pelvic fracture and severe soft tissue injuries complicated by sepsis - case report

Jan Čavar, Domagoj Sajfert, Ante Stojanović, Martin Matošić, Tomislav Žigman

CR40 Case report of a firefighter with second and third-degree burns

Dora Čeč, Marissa Bura, Klara Đambić, Ivona Franjić-Tubić, Želimir Orkić

CR41 Hepatitis C as an atypical trigger of intrahepatic cholestasis in pregnancy

Doris Čeović, Lucija Dobrić, Tina Čukman, Petar Brlas, Tajana Filipec Kanižaj

CR42 Latissimus Dorsi Muscle Free Flap in Reconstruction of Complex Defect of the Scalp

Tina Čukman, Petar Brlas, Hana Čurtović, Marija Čorić, Darko Solter

CR43 Diagnostic Dilemma: Leptospirosis Presenting as Immune Thrombocytopenia

Marija Čorić, Tina Čukman, Doris Čeović, Radovan Radonić, Iva Košuta

CR44 Laparoscopic cystectomy in a 15-year-old patient with Prader-Willi syndrome

Lea Čortuka, Fran Cerovski, Zdenko Boras

CR45 Challenges in Diagnosis and Management of Nasal Non-Hodgkin Lymphoma: A Case Report of Successful Chemotherapeutic Intervention

Ana-Marija Čulap, Ema Grba, Sandra Čulap, Petra Knežević, Petra Ivančević

CR46 Rib and fat grafts in facial plastic surgery: A promising solution for asymmetry

Hana Čurtović, Maro Bjelica, Marija Bukvić, Tina Čukman, Ivan Rašić

CR47 The involvement of plastic surgery in managing Gram-negative sepsis

Maroje Daničić, Martin Milić, Ema Erceg, Sara Floričić, Emil Kinda

CR48 A case of self-inflicted traumatic cataract in a girl affected by Marden-Walker syndrome

Rea Deghenghi, Dora Ovrtila, Miro Kalauz, Matija Kalauz, Sanja Masnec

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Dora Rebeka Divković, Marin Prpić

CR50 Optimizing Reconstruction: Hughes Procedure Following Lower Eyelid Basal Cell Carcinoma Resection

Lucija Dobrić, Petar Brlas, Marija Čorić, Borna Bregović, Jelena Juri Mandić

CR51 Diagnosis of Streptobacillus moniliformis-Induced Rat Bite Fever in the Emergency Room Settings: A Case Report

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CR52 Fibromuscular dysplasia – a case report

Blaž Dumančić, Ines Jakšić, Ante Lončar, Marko Mešin, Karla Bodakoš

CR53 An uncommon case of deep vein thrombosis in vena subclavia

Klara Đambić, Marissa Bura, Sara Đuričić, Marija Palčok, Zorin Makarović

CR54 Secondary Hemophagocytic lymphohistiocytosis (HLH) known as Macrophage-activation syndrome (MAS) – complication of unrecognized Systemic lupus erythematosus (SLE)

Ivan Đuran, Marko Đurišević, Anja Čuk, Lucija Gojmerac, Jasenka Markeljević

CR55 The role of topical cyclosporine in treatment of severe dry eye disease – a case report

Mia Edl, Bruno Bumči, Ivona Damjanović, Tomas Edl, Suzana Matić

CR56 Did not see that coming...rare case of hemangioma

Vladimir Ercegović, Ante Giljanović, Andrija Radoš

CR57 Signs vs. Symptoms: Budapest Criteria Decoding Complex Regional Pain Syndrome

Lara Fotez, Martin Bobek, Matej Dobrošević, Lucija Fotez, Dubravka Bobek

CR58 Insight into Central Retinal Artery Occlusion: A COVID-19 Perspective

Lucija Fotez, Klara Dorešić, Lara Fotez, Antonela Gverović Antunica, Snježana Kaštelan

CR59 Pulmonary metastasis in a patient with undiagnosed low-grade endometrial stromal sarcoma

Ivona Franjić-Tubić, Dora Čeč, Klara Đambić, Marija Palčok, Mirna Erman-Vlahović

CR60 Cross leg flap for reconstruction of lower extremity burns- a case report

Petra Galčić, Zara Miočić, Mario Špoljarić, Luka Medić, Marko Babić

CR61 Cutaneous manifestation of Crohn's disease

Vesna Gajuf, Dina Gržan, Marjan Kulaš, Helena Šimurina

CR62 Microdeletion syndrome 16p11.2: clinical and molecular characterization

Jurica Geneja, Ivan Prigl, Lucija Tošić, Ana Prica, Silvija Pušeljčić

CR63 Giant cell arteritis with lower limb ischemia and polymyalgia rheumatica successfully treated with tocilizumab

Lucija Gojmerac, Ivan Đuran, Ivan Padjen

CR64 Hypofractionated Gamma Knife Stereotactic Radiosurgery for Optic Chiasm Metastases with Preservation of Chiasm Integrity

Gracia Grabarić, Sergej Mihailović Marasanov, Jakob Nemir

CR65 case report of skin-sparing mastectomy with a severe tissue expander complication after adjuvant radiotherapy

Ema Grba, Ana-Marija Čulap, Zara Miočić, Bruno Bumči, Marko Babić

CR66 Patient with Alport syndrome treated with continuous ambulatory peritoneal dialysis develops uremic encephalopathy

Josip Grbavac, Josip Hanulak, Zvonimir Sitaš, Dorian Osterreicher, Dubravka Mihaljević

CR67 Cardiac allograft vasculopathy: retransplantation as a viable treatment option

Lucija Grbić, Hannah Gašparević, Anđela Dujmović, Antonija Gračanin, Mario Udovičić

CR68 Nocardia cyriacigeorgica Masquerade: Deciphering a Cerebellar Enigma

Nilko Grebenar, Katarina Domjanović, Gordan Rejlec, Maja Bogdan, Marko Živkov

CR69 Non-suicidal self-injury in preadolescents with anxiety and depression

Ivana Groznica, Tamara Stanojlović, Ana Pešikan, Vlatka Kovač, Ivana Groznica Hržić

CR70 Exploring the Connection Between Bariatric Surgery and Night Blindness – A Case Report on Vitamin A Deficiency

Dina Gržan, Vesna Galjuf, Marko Hawlin, Igor Petriček, Antonela Geber

CR71 Reconstruction of hypopharynx with radial forearm microvascular free-flap

Ina Gutmann, Željko Zubčić, Hrvoje Mihalj, Anamarija Šestak

CR72 Intracerebral Hemorrhage in a Kidney Transplant Recipient with Polycystic Kidney Disease

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6TH INTERNATIONAL TRANSLATIONAL MEDICINE CONGRESS
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ABSTRACTS

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2024

BASIC SCIENCE

OSCON



BS01

Functional and Neuroanatomical evidence in line with a mouse CGRP model support the involvement of peptidergic Edinger-Westphal nucleus in migraine

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Introduction: The centrally projecting Edinger-Westphal nucleus (EWcp) urocortin 1 (UCN1)-expressing neurons are affected by circadian rhythm, hormonal changes, stress and pain that are known to trigger migraine. Therefore, we aimed at investigating the possible role of EWcp in migraine.

Materials and methods: RNAscope in situ hybridization (ISH) combined with immunostaining was used to examine the expression of calcitonin gene-related peptide (CGRP) receptor component (Crcp) in mouse and human EWcp and dorsal raphe nucleus (DRN). Anterograde and retrograde tracing study examined the anatomical connection between EWcp and the spinal trigeminal nucleus (STN). Intraperitoneal CGRP injection model of migraine was applied and validated by light-dark box test in C57BL/6J mice. ISH and immunostaining were used to assess the morphological changes. The functional connectivity matrix of Edinger-Westphal (EW) was examined using fMRI in humans.

Results: We proved the presence of Crcp mRNA in both murine and human DRN and EWcp. We identified a direct urocortinergic projection from EWcp to the STN. Photophobic behavior along with increased FOS immunoreactivity in the lateral periaqueductal gray matter and trigeminal ganglia supported the efficacy of CGRP-induced migraine-like state. CGRP administration increased Ucn1 mRNA, FOS and UCN1 peptide content of EWcp neurons. Both serotonin and tryptophan hydroxylase 2 levels decreased in the DRN. We identified a positive functional connectivity between EW and STN as well as DRN.

Conclusion: The results suggest a neuromodulatory role of the EWcp/UCN1 neurons in migraine via connection with the STN and DRN with high translational value.

Keywords: Calcitonin gene-related peptide; Edinger-Westphal Nucleus; Urocortin 1

BS02

A new potential therapeutic target in bacterial keratitis

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Introduction: Microbial keratitis is one of the most common causes of corneal opacity leading to visual impairment. Inappropriate contact lens use, eye surgeries, diabetes mellitus and the regular use of topical steroids are the most common risk factors of the disease. Early diagnosis and thus proper treatment remain a challenge today, despite the wide range of antibiotics available. Pituitary adenylate cyclase-activating polypeptide (PACAP) is a neuropeptide with strong anti-inflammatory and anti-apoptotic effects. Furthermore, it accelerates corneal wound healing. Our aim is to investigate the role of pituitary adenylate cyclase receptor (PAC1), the only known specific receptor of PACAP, in bacterial keratitis.

Materials and methods: Bacterial keratitis was induced by bacterial lipopolysaccharide endotoxin in mice. Half of the animals were treated with the specific PAC1 receptor agonist maxadilan by intravitreal injection. Optical coherence tomography (OCT) was used to track the changes in the structure of the cornea and 3D models were created for further analysis. Level of 40 types of cytokines was analyzed in the different groups. In addition, severity of the developed keratitis was established.

Results: Central corneal thickness significantly increased 24 hours after induction of inflammation and maxadilan could significantly prevent this consequence based on our OCT measurements. Maxadilan treatment also modified the activation of inflammatory processes by altering the levels of several cytokines and chemokines. Macroscopic evaluation of keratitis also confirmed our results that maxadilan reduced the severity of developing keratitis.

Conclusion: Based on our results, PAC1 receptor can be a new potential therapeutic target in bacterial keratitis.

Keywords: Cornea; Keratitis; Receptors, Pituitary Adenylate Cyclase-Activating Polypeptide, Type I

BS03

Influence of hydrogen peroxide on doublecortin expression in neural stem cellsMarko Gavrančić¹; Dinko Mitrečić¹; Dražen Juraj Petrović^{1,2}*1 - Laboratory for Stem Cells, Croatian Institute for Brain Research, School of Medicine, University of Zagreb, Zagreb, Croatia**2 - Laboratory for Glycobiology, Genos, Zagreb, Croatia*

Introduction: Doublecortin (DCX) is a microtubular protein typical for neural stem cells (NSCs) developing into neurons. We hypothesised that rising concentrations of hydrogen peroxide (H₂O₂), an equivalent of oxidative stress, would induce cell death and slow down NSC differentiation, visible in decreasing DCX expression.

Materials and methods: NSCs were isolated from murine embryos, passaged as neurospheres and plated in 24-well plates, differentiated for 48 hours and then grown (50.000 per mL) in three groups of two technical replicates (control, 100 μM H₂O₂, 1000 μM H₂O₂). After 24 hours, NSCs were fixated with a 4% paraformaldehyde solution and stained for immunocytochemistry with DCX-specific antibodies and DAPI nuclear dye. Imaging was done with a light microscope before and after H₂O₂ treatment. Fluorescent confocal imaging was performed with Olympus FV3000 and analysed in ImageJ Fiji.

Results: Treating NSCs with H₂O₂ caused death in 45% (100 μM) and 78,78% (1000 μM) of cells. Rising H₂O₂ concentration increased the average DCX intensity per cell by 57,52% (100 μM) and 333,63% (1000 μM) and the average area of DCX per cell increased by 32,23% (100 μM) and 163,57% (1000 μM). P<0.05.

Conclusion: In this study, we expected that H₂O₂ treatment would slow down the differentiation of NSCs. Contrary to our hypothesis, H₂O₂-induced oxidative stress caused a rise in both DCX intensity and area, leading to bigger cells and early differentiated neurons. Even though H₂O₂ significantly caused cell death, in surviving cells, it accelerated NSC differentiation and induced the growth of cellular projections, visible in the increase of DCX mean intensity and area.

Keywords: Cell Death; Doublecortin Protein; Hydrogen Peroxide; Immunohistochemistry; Neural Stem Cells

BS04

The functional and morphological damage to Edinger-Westphal nucleus observed in a Parkinson's disease model cannot be reversed by benzerazide-levodopa treatmentJános Kocsa¹; Ákos Szabó¹; Bence Pytel¹; Balázs Gaszner¹*1 - Department of Anatomy, University of Pécs Medical School, Pécs, Hungary*

Introduction: Parkinson's disease (PD) is a neurodegenerative disease with motor and non-motor symptoms. Our group focuses on the ethology of mood disorders. We have seen in previous studies that neurodegeneration occurs in the main neuropeptide expression site of urocortin-1 (UCN1) called centrally projecting Edinger-Westphal nucleus (cpEW) in PD models. The aim of this study was to investigate whether anti-PD therapy reverses the functional-morphological changes seen in the cpEW. We hypothesized that treatment would have no significant effect on the amount of UCN1 and its mRNA.

Materials and methods: Compared to the control group we induced PD-like state by 6 weeks of rotenone treatment. Half of the animals injected with rotenone were also treated with benzerazide/levodopa anti-PD medication. In vivo tests were used to verify the efficacy of the model and therapy. Functional morphological studies were performed on cpEW sections using a combination of immunofluorescence labelling and RNAscope in situ hybridization.

Results: Locomotion and mood were severely impaired upon rotenone treatment. Motor symptoms improved in contrast to anxiety and depression-like states upon therapy. We reproduced the UCN1/EWcp neuronal death, which was not affected by therapy. Surviving cells exhibited higher levels of UCN1 peptide and lower levels of Ucn1 mRNA, which were unaffected by treatment.

Conclusion: The opposite change of the UCN1 peptide and its mRNA indicates inhibition in neuropeptide release. This phenomenon may be due to a PD-like state and energetic deficit induced by rotenone. Our results suggest that benzerazide/levodopa treatment is ineffective in treating mood-related non-motor symptoms, suggesting that impairment of cpEW contributes to mood disorders in PD.

Keywords: Levodopa; Parkinson Disease; Rotenone; Urocortins

BS05

Transient receptor potential ankyrin 1 in centrally-projecting EdingerWestphal nucleus may diversely modulate the symptoms of posttraumatic stress disorder in mice

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Introduction: Transient receptor potential ankyrin 1 (TRPA1) is a non-selective cation channel expressed in the urocortin 1 (UCN1) positive neurons of the centrally projecting Edinger-Westphal nucleus (EWcp) having modulatory impact on stress adaptation. As post-traumatic stress disorder (PTSD) is triggered by disturbed stress adaptation, we hypothesized the regulatory role of EWcp/UCN1/Trpa1 neurons in PTSD.

Materials and methods: Male TRPA1 wild-type (WT) and knockout (KO) mice were exposed to two different models of PTSD. In single prolonged stress (SPS) paradigm, time spent immobility was measured during forced swim test (FST) indicating depression-like behaviour. Upon footshocks model, jumping frequency was assessed as characteristic parameter for hyperarousal. Trpa1 and Ucn1 mRNA expressions as well as UCN1 peptide contents were measured in the EWcp/UCN1 neurons applying RNAscope technique combined with immunofluorescence.

Results: Enhanced immobility combined with increased UCN1 peptide content was detected in stressed WT animals upon SPS, while similar changes were not detectable in KO mice. The basal Ucn1 mRNA expression was higher in KOs, however its level was not altered in any SPS-exposed groups. Using footshock, elevated stress-induced jumping rate was detected in KO animals, while shock-induced enhancement of Ucn1 mRNA level was observed only in WT animals associated with similarly changing tendencies of UCN1 peptide content. Trpa1 mRNA was downregulated in stressed groups of both models.

Conclusion: Reduced Trpa1 mRNA expression in WT animals and unaltered UCN1 turnover in KO mice along with the increased hypervigilance and absence of depression-like behaviour may suggest the role of TRPA1 in the development of PTSD symptoms.

Keywords: Edinger-Westphal Nucleus; Post-Traumatic Stress Disorder; urocortin-1

BS06

Examination of the pontine micturition center (Barrington's nucleus) in a mouse model of chronic stress

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Introduction: Barrington's nucleus (BN) plays a key role in micturition. Its vesicular glutamate transporter 2 (VGLUT2) positive neurons have a role in immediate voiding, however, corticotropin-releasing hormone (CRH) and VGLUT2 double positive neurons have a role in bladder contraction, typically without voiding. Our research group has previously proven that the BN neurons are chronically activated in response to chronic stress. We hypothesized that the chronic activation of the BN plays a role in the pathomechanism of stress-induced continence disorders. Our aim was to characterize the FOSB (marker of chronic neuronal activation) positive neurons in the BN upon chronic stress.

Materials and methods: C57BL6 mice were tested in the chronic variable mild stress model of depression. Expression of CRH and FOSB was examined by double immunostaining at protein level, moreover, Crh, Vglut2 and Fosb were investigated by RNAscope in situ hybridization (ISH) at the mRNA level in the BN upon chronic stress.

Results: The CRH peptide could only be detected in nerve fibers, presumably because of its rapid axonal transport, therefore, its co-localization with the nuclear staining FOSB could not be examined at the protein level. By RNAscope ISH we found no difference in the Crh density and FosB positivity of the BN's neurons.

Conclusion: We conclude that the FOSB neuronal activation, which we previously found by immunostaining, may come from the non-CRH VGLUT2 positive neurons, which have a role in immediate voiding. Further investigation is planned to prove this hypothesis.

Keywords: Barrington's Nucleus; Corticotropin-Releasing Hormone; Vesicular Glutamate Transport Protein 2

BS07

Investigation of the central projecting Edinger-Westphal nucleus in a mouse model of Alzheimer's disease

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Introduction: In Alzheimer's disease (AD), the degeneration of basal forebrain cholinergic cells is well-documented, yet other cholinergic brain areas have received less attention. The Edinger-Westphal nucleus (EW), part of the oculomotor complex, may undergo early changes in AD, leading to pupillomotor dysfunction. However, the involvement of peptidergic neurons in the centrally projecting EW (EWcp) in AD remains unexplored. Recent literature implicates the transient receptor potential ankyrin1 (TRPA1) ion channel in neurodegenerative diseases, with notable *Trpa1* mRNA expression in the EWcp of mouse brains, particularly in urocortin 1 (UCN1)-containing neurons. Given the susceptibility of the EW to AD and its high TRPA1 expression, it is hypothesized that TRPA1 may play a role in AD-related neurodegeneration of peptidergic EW neurons.

Materials and methods: 3xTg (amyloid precursor protein, presenilin-1 and tau overexpressing) mice were used as a model of AD. Two, 12 and 18-months-old 3xTg and C57BL6 mice of the same age as controls were studied. *Trpa1* RNAscope in situ hybridization was combined with UCN1 immunolabelling in the EWcp.

Results: Higher *Trpa1* expression was observed in 2-months-old controls than in age-matched 3xTg mice. *Trpa1* expression decreased by age in the C57BL6 strain. 3xTg mice showed lower *Trpa1* expression that was not affected by the course of aging. The UCN1 peptide level peaked at 12 months of age in both genotypes compared to their 2-month-old counterparts, followed by a declining trend by 18 months.

Conclusion: Altered age-related dynamics of *Trpa1* expression of AD mice suggest that EWcp/UCN1 neurons may also be affected by AD.

Keywords: Alzheimer disease; Edinger-Westphal Nucleus; transient receptor potential cation channel; urocortin

BS08

The TRPA1 ion channel is downregulated in the centrally projecting Edinger-Westphal nucleus in a mouse model of chronic alcohol consumption

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Introduction: The centrally projecting Edinger-Westphal nucleus (EWcp) contributes to the control of alcohol consumption by its urocortin 1 (UCN1) and cocaine- and amphetamine-regulated transcript (CART) co-expressing peptidergic neurons, which carry the transient receptor potential ankyrin 1 (TRPA1) ion channel. Ethanol is the activator of TRPA1. We hypothesized that chronic alcohol exposure influences the EWcp/UCN1/CART neurons via TRPA1.

Materials and methods: Twelve weeks old, male *Trpa1* knockout (KO) and wild-type (WT) mice (n=10-12) were compared in a free-choice-dark-phase chronic alcohol (10%) consumption model in a 3-month period. EWcp chronic neuronal activity was assessed by FOSB immunostaining combined with CART immunofluorescence to semi-quantify the CART peptide content. *Trpa1* and *Cart* mRNA expression was examined by RNAscope in situ hybridization.

Results: In WTs *Cart* and *Trpa1* mRNAs were downregulated upon chronic alcohol consumption in line with the reduced CART peptide immunoreactivity. This, associated with the absence of FOSB activation suggests reduced CART release. In KO mice, the lower basal *Cart* mRNA density was further reduced upon alcohol exposure, however this was associated with increased FOSB neuronal activity. The *Cart* mRNA and CART neuropeptide content of the EWcp correlates positively with alcohol preference. In chronic alcohol consumption, the reduced *Trpa1* and *Cart* mRNA expression as well as CART peptide content suggest the regulatory role of TRPA1 in CART release.

Conclusion: Alcohol and its metabolites may influence the release of CART from EWcp/UCN1/CART neurons via TRPA1 channels suggesting the role of this ion channel in alcohol abuse.

Keywords: alcohols; cocaine- and amphetamine-regulated transcript protein; Edinger-Westphal Nucleus; transient receptor potential channel

BS09

Retention of magnetic particles in breast cancer cells spheroids

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Introduction: Cell adhesion molecules enable a tight connection between epithelial and myoepithelial cells in the normal breast epithelium. In tumor cells, cell adhesion is reduced, leading to their rapid proliferation and uncontrolled growth. As a result, the epithelial organization is disturbed, the tumors progress and metastases. The aim of this study was to culture breast cancer spheroids at different stages of development (7, 14 and 21 days) using the magnetic levitation method and to evaluate the retention of magnetic particles over these periods.

Materials and methods: 3D cell cultures of MCF-7 breast cancer cells were developed using the magnetic levitation technique. Magnetic particles delivered to the cells allowed the formation of spheroids under an external magnetic field. The spheroids were processed for cryostat sectioning, stained and imaged under a microscope with an attached camera. The retention of the particles was quantitatively analyzed using Fiji software, with statistical analysis performed using the statistical program R.

Results: Initial observations indicate a significant retention of magnetic particles in the spheroids in the first week, which decreases significantly in the third week. A statistically significant difference was found between the first and third week.

Conclusion: The study shows a temporal decrease in the retention of magnetic particles in breast cancer spheroids, with a significant decrease observed from the first to the third week, suggesting changes in cellular adhesion properties over time.

Keywords: Cell Adhesion Molecules; Spheroids, Cellular; Cell Culture Techniques; Breast Neoplasms

CASE REPORT

OSCON



CR01

Noonan Syndrome: a Case Report and Diagnostic Approach

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Introduction: Noonan syndrome phenotype (NS) presents during the neonatal period with feeding difficulties and failure to thrive. Usual clinical characteristics include hypertelorism, micrognathia, deep philtrum, short neck, and congenital heart diseases, the most common of which are pulmonary valve stenosis and hypertrophic cardiomyopathy. The inheritance is autosomal dominant, and the incidence of NS is reported to be between 1 in 1000 and 1 in 2500 live births.

Case report: A newborn female was referred to the hospital due to suspected malformation syndrome. During pregnancy, a slightly larger fetal head and shorter femurs were noticed. Birth was induced by an observed intrauterine growth restriction. Dysmorphic signs such as a high broad forehead, hypertelorism, downward slanting palpebral fissures, low-set, posteriorly rotated ears, poorly shaped and low-set ears were observed postnatally. The sucking reflex was weak, so she could not be breastfed, or bottle-fed. Nasogastric tube was applied for a few days. Heart ultrasound revealed thickening of the myocardium in both ventricles. Blood samples for genetic assessment were taken, and the patient was subsequently discharged. Three months later, she was again hospitalized because of feeding difficulties. She had tachycardia, and heart ultrasound verified intracavitary obstruction and concentric left ventricular hypertrophy. Beta-blockers were introduced into therapy. Genetic evaluation revealed a normal karyotype and RAF1 mutation, confirming NS.

Conclusion: NS is a rare condition that should be considered when diagnosing neonatal diseases with dysmorphia, feeding difficulties and typical heart disease. It is important to diagnose it early to prevent further complications. Treatment requires a multidisciplinary approach.

Keywords: hypertrophic cardiomyopathy; mutation; Noonan syndrome

CR02

Cerebral Venous Sinus Thrombosis in a young female: a case report

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Introduction: Cerebral venous sinus thrombosis (CVST) is a rare neurological condition defined by the presence of blood clots in the venous sinuses of the brain. It makes up 0,5% of all strokes and typically occurs in young individuals, manifesting with a range of neurological symptoms.

Case report: A 25-year-old woman arrived at the emergency department displaying changes in mental alertness and a severe headache. The headache had begun the previous day and progressively worsened, accompanied by nausea, vomiting, and a mild fever. She was previously healthy and recently started taking oral contraceptive medication. Upon physical examination, she was lethargic and hypotensive without any specific neurological impairment. Laboratory testing revealed only elevated D-dimer levels. A non-contrast Computed Tomography (CT) of the brain indicated hyperdense lesions, while a CT venogram showed occlusion of the superior sagittal sinus, as well as the left transverse and sigmoid sinus, and the left jugular vein. Additionally, a Magnetic Resonance Imaging of the brain confirmed the diagnosis of cerebral venous sinus thrombosis, revealing also secondary venous infarcts in both frontal lobes, the right caudate nucleus and left temporal lobe. The patient was promptly transferred to the intensive care unit and started on subcutaneous low molecular weight heparin as initial treatment. All hypercoagulability work-up tests came back negative. The patient's condition gradually improved and was discharged with oral anticoagulant therapy.

Conclusion: This case report aims to emphasize the significance of maintaining a high level of suspicion for CVST in patients presenting with neurological symptoms and relevant thrombotic risk factors.

Keywords: Computed tomography; Contraceptives; Oral; Sinus Thrombosis; Intracranial

CR03

Huge ascending aortic and arch aneurysm associated with chronic Stanford type A aortic dissection

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Introduction: The most recent guidelines suggest that the ascending aorta size ≥ 55 mm and a growth rate ≥ 5 mm per year are the most important factors in determining whether surgical intervention is necessary to prevent complications.

Case report: We present the case of a 67-year-old female with a large aneurysm of the ascending aorta and aortic arch extending to the aortic isthmus. She presented with progressive dyspnea and aortic aneurysm was discovered on a chest x-ray. Computerized tomography angiography was performed and aortic aneurysm with a 110 x 104 mm diameter was detected. Circumferential mural thrombus with lamellar calcifications was visible inside the aneurysmal sac indicating a previous aortic wall dissection. Ultrasound revealed mild to moderate aortic regurgitation with normal leaflet appearance. The ascending aorta and arch were replaced with an interpositum graft, with separate reimplantation of the supraaortic branches and formation of a lateroterminal anastomosis of the truncus brachiocephalicus due to thrombus and dissection at the origin. Aortic valve subcommissural annuloplasty was also performed. Patient made a full recovery and was discharged home on the 22nd postoperative day.

Conclusion: This case demonstrates that chronic development of type A acute aortic dissection can be seen in untreated individuals despite high mortality rate in acute phase. Progressive aortic dilatation is a well-known risk factor for dissection and rupture. Identifying additional risk factors may not only improve individualized risk assessment and clinical decision-making, but also lead us to earlier diagnosis in affected individuals.

Keywords: Aortic Aneurysm; Aortic Dissection; Aortic Rupture

CR04

Isolated sternal fracture after a car accident; a blessing and a curse of airbags and seatbelts

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Introduction: While the introduction of airbags and seatbelts reduced driver fatalities, they may contribute to life-threatening injuries, like sternal fractures. Before deploying airbags, isolated sternal fractures were rare, but evolving standards suggest a potential rise in their incidence.

Case report: In this case report we present a female driver involved in a frontal collision with another vehicle. Upon hospital admission the patient exhibited hemodynamic stability and was conscious and oriented. She was subsequently admitted to the Intensive Care Unit (ICU) for a 24-hour vital signs monitoring. Few hours after, she started complaining of chest pain, prompting a thorough medical examination, including a Multislice Computed Tomography (MSCT) scan of the thorax, revealing an isolated sternal fracture with no impact on mediastinal structures. To assess potential cardiac injuries, an echocardiography was conducted, uncovering a compression of the apical part of right ventricle with minimal pericardial effusion. Surprisingly, despite echocardiogram findings, laboratory tests including the high-sensitive troponin I (HsTnI) level (<2.52 ng/L) and MSCT scan results showed no indication of a heart contusion. This suggests an absence of cardiac injury, even in the presence of observed compression of the right ventricle.

Conclusion: Sternal fractures, occurring in 3-6% of motor vehicle collision cases, are relatively rare injuries, more common in females and seatbelt wearers. Often linked to polytrauma, isolated sternal fractures may be overlooked, due to mild symptoms. Despite potential lack of symptoms, awareness is crucial, given their association with fatal injuries. Remarkably, in our case, no evidence of cardiac contusion was detected in spite of heart compression.

Keywords: Air Bags; Intensive Care Units; Sternum

CR05

A neonate with abdominal distension: what could it be?

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Introduction: Neuroblastoma, an embryonal tumor arising from the sympathetic nervous system, is the most common malignant tumor in infants. However, only 5% of the cases occur in neonates, when in most cases the prognosis is excellent and detection is already possible in utero by ultrasonography.

Case report: We present a case of a term female neonate, born from uncomplicated pregnancy. Prenatal ultrasounds were unremarkable, but immediately after birth abdominal distension was noticed. Firstly, an abdominal ultrasound showed bilateral hydronephrosis and distention of the urinary bladder, rising suspicion of a congenital anomaly of the urinary tract. Subsequent abdominal and pelvic computed tomography (CT) scans revealed a sizable pelvic mass (5,8 x 3,7 x 6,5 cm) with calcifications, compressing adjacent structures and infiltrating left gluteal musculature. Tumor markers (alpha-fetoprotein and neuron specific enolase) were negative. Urinary catecholamines (homovanillic acid and vanillylmandelic acid) were not measured. The diagnosis of pelvic teratoma was considered. After surgical excision of the tumor, pathohistological findings were consistent with N-myc negative neuroblastoma. MIBG (iodine-123 meta-iodobenzylguanidine) scan identified residual masses intraspinally and in the left gluteal parasacral space. Four cycles of chemotherapy were indicated, as well as clean intermittent catheterizations for the management of urinary retention due to development of neurogenic bladder.

Conclusion: Neuroblastomas, originating from neural crest cells, can develop anywhere along the sympathetic chain. Pelvic localization is very rare, accounting for 2-5% of all cases. Consequently, it poses not only a diagnostic challenge but also a surgical one due to the proximity of vital nervous structures.

Keywords: Neuroblastoma; Newborn; Pelvis

CR06

Mimicry and diagnostic challenges: a case of visceral artery pseudoaneurysms

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Introduction: Pseudoaneurysms are vascular anomalies which occur when a breach in an artery wall leads to hematoma formation outside the vessel. Various imaging modalities, such as computed tomography (CT) and angiography, play a crucial role in diagnosing and characterizing pseudoaneurysms. Our case presents challenges in the diagnosis of pseudoaneurysms due to their diverse clinical presentations.

Case report: A 48-year-old female presented with loss of appetite, nausea and abdominal pain. Upon admission, ultrasound examination revealed the presence of a hyperechoic structure adjacent to the gallbladder. An abdominal CT scan revealed an irregular infiltrative lesion surrounding the lower duodenum, leading to significant distension of the stomach. Owing to its location and morphology, it was suspected to be either a mesenchymal tumor, a pancreatic head tumor or a lymphoproliferative disease. A week later, post-contrast abdominal CT was made for biopsy planning. During the imaging, there was a notable regression of the infiltrate seen on the previous CT scan. Digital subtraction angiography (DSA) was performed and revealed the presence of a pseudoaneurysm in a branch of both the pancreaticoduodenal artery and the gastroduodenal artery. Treatment involved endovascular coil embolisation of both arteries. Post-treatment CT scans revealed the absence of contrast media leakage and demonstrated further reduction in the size of the hematoma.

Conclusion: The non-specific symptoms associated with pseudoaneurysms can lead us to suspect a wide range of pathologies. Careful imaging, including DSA, facilitates prompt diagnosis and treatment.

Keywords: Aneurysm, False; Angiography, Digital Subtraction; Endovascular Procedures

CR07

Rare presentation of an anal polyp in a child with Waardenburg syndrome

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Introduction: Waardenburg syndrome is a rare genetic disorder characterized by various congenital abnormalities, including hearing loss, pigmentation changes in the hair, skin, and eyes, and distinctive facial features. Although the syndrome affects multiple organ systems, the presence of an anal polyp is an uncommon finding in Waardenburg syndrome. This case report presents a clinical description of a newborn with Waardenburg syndrome and an anal polyp, highlighting the diagnostic challenges and management strategies of this syndrome.

Case report: We present the case of a 4-day-old female newborn diagnosed with Waardenburg syndrome. The newborn's physical examination revealed characteristic features of the syndrome, including a broadening of the nasal bridge and a white strand of hair. The mother, who also had Waardenburg syndrome, reported a similar set of malformations. An anal polypoid structure measuring 0.5 cm was also noted in the newborn. In addition, a fibroma-like change was observed on the dorsal left labia of the newborn. The polypoid structure did not obstruct defecation; however, because of the potential for complications such as bleeding or obstruction in the future, surgical removal of the polyp is planned.

Conclusion: This case report highlights the unusual presentation of an anal polyp in a child with Waardenburg syndrome. By documenting and analyzing such rare occurrences, the typical features of this syndrome can be expanded upon, and healthcare professionals can further understand the complexities of this genetic disorder and its potential associations.

Keywords: Child; physical examination; Waardenburg syndrome

CR08

How the rapid metabolism of CYP2C19 and CYP2D6 affects the dose adjustment of psychopharmacological therapy in patients

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Introduction: Numerous genetic studies on enzymes from the Cytochrome P450 group have concluded that a large number of polymorphic variants affect the human body. Genetic analysis of the Cytochrome P450 (CYP) group and drug metabolism aids in predicting the therapeutic effect, required dose, and potential harmful side effects of drugs.

Case report: A 23-year-old female patient was referred to the outpatient clinic of the Clinical pharmacology unit at the University Hospital Centre Zagreb. She was diagnosed with obsessive-compulsive disorder (F42.8) and began taking several psychotropic drugs including escitalopram, sertraline, vortioxetine, and paroxetine. Therapy was discontinued following the onset of redness and itching on the skin of her extremities and trunk. She visited the outpatient clinic for pharmacogenetic testing of CYP2C19 and CYP2D6 to determine her genetic variant and appropriately titrate her therapy. The findings indicated that she is a fast metabolizer for CYP2C19, which could lead to lower blood concentrations of drugs metabolised by this enzyme (such as citalopram, escitalopram, sertraline). Taking these findings into account, the patient was advised to consider drugs not metabolised by CYP2C19, such as Fluvoxamine, if there is an indication for selective serotonin reuptake inhibitors (SSRIs) in the future.

Conclusion: The goal of genotyping and individualised medicine is to provide optimal healthcare tailored to each patient. As each individual has a unique genetic makeup, a single therapeutic approach may not be suitable for everyone. Therefore, pharmacogenetics is poised to significantly advance medicine in the 21st century.

Keywords: Cytochromes; Pharmacogenetics; Psychotropic Drugs

CR09

Myocardial bridging in the LAD coronary artery presented in a young football player

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Introduction: Myocardial bridging is the most common congenital anomaly where coronary arteries are located within the myocardium instead of the epicardium. While the left anterior descending (LAD) coronary artery is often affected, other coronary arteries may also be involved. Myocardial bridges can be asymptomatic or present with symptoms including chest pain, arrhythmias, and heart attacks.

Case report: We present a 21-year-old male professional football player with myocardial bridging in the proximal segment of the LAD coronary artery. The patient experiences ongoing difficulties in football matches, leading to his exclusion from active participation due to an increased risk of injury. The patient reported severe chest pain and increased heart rate. The ultrasound, ergometry (terminated at the 11th minute), and holter electrocardiogram (indicating an average sinus rhythm of 69/min) were performed. No irregularities or atherosclerotic findings were identified. Multislice computed tomography (MSCT) angiography revealed the presence of myocardial bridging in the LAD. The patient's treatment regimen now includes bisoprolol 2.5 mg before exercise and diltiazem 90 mg twice daily. The patient is advised against participating in professional football competitions due to his new diagnosis.

Conclusion: Myocardial bridging poses challenges in diagnosis, often mimicking other diseases. It's crucial to use MSCT angiography, as alternative diagnostic methods have limitations. The prevalence of myocardial bridging is less than 5% when assessed by coronary angiography. On the other hand, during the autopsy a frequency ranging from 30% to 80% was determined, emphasizing its key role in early and differential diagnosis.

Keywords: Angina Pectoris; Heart Failure; Myocardial Bridging

CR10

Reconstructive surgery in severe midfacial hypoplasia and mandibular skeletal deformity

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Introduction: Midfacial hypoplasia is a congenital facial anomaly characterised by premature fusion of craniofacial sutures. These skeletal abnormalities result in functional changes such as obstruction of the upper airway, intracranial hypertension and ocular disorders. In this case, hypoplasia affected the maxillary bone along with mandibular deformity with impaired function.

Case report: The 29-year-old male patient was hospitalised for a planned reconstructive procedure for a severe congenital skeletal deformity of the midface and mandible. A physical examination was conducted, as well as multislice computed tomography (MSCT), which revealed relative prognathism of the mandible with clockwise rotation and severe anterior-posterior hypoplasia of the whole midface. This resulted clinically in an open bite and class III malocclusion. Impaired breathing with deviation of the nasal septum and pyramid was also present. The reconstruction was divided into three stages. The first operation, performed in June 2019, involved whole midface (LeFort III) osteotomy, osteosynthesis, and osteoplasty with an iliac crest graft. Six months later, in December 2019, Le Fort I maxillary osteotomy and mandibular sagittal split osteotomy were performed. The third operation took place in January 2021, involving rhinoplasty with a rib cartilage graft, genioplasty, and removal of osteosynthetic material. After all these procedures, normal occlusion was achieved along with better nasal breathing and excellent aesthetic outcome.

Conclusion: Reconstructive surgery of the jaws proves highly effective in resolving aesthetic and functional concerns associated with severe midfacial hypoplasia and mandibular deformity. The successful outcomes emphasize the significance of thorough planning and execution in managing congenital facial anomalies.

Keywords: Midface hypoplasia; Osteotomy, Le Fort; Rhinoplasty

CR11

Thickening of the sigmoid colon wall without a significant elevation of inflammatory parameters: Is it always a tumor?

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Introduction: A healthy colon typically has a wall thickness of 3 millimeters or less. When encountering colon wall thickening without an accompanying rise in inflammatory parameters, the primary consideration should be a neoplastic cause. Nevertheless, this case report highlights an exception to the common assumption.

Case report: A 63-year-old patient with a history of arterial hypertension, type 2 diabetes mellitus and abdominal aortic aneurysm was assessed in the gastrointestinal outpatient clinic due to dull pain in the lower left quadrant. A recent follow-up ultrasound revealed a 10-millimeter thickening of the wall of the sigmoid colon's aboral region. Laboratory tests showed a slight increase in C-reactive protein (5.8 mg/L), while the carcinoembryonic antigen blood level was within the normal range. Significant narrowing of the lumen in the sigmoid colon disabled performing a total colonoscopy. A confirmatory computed tomography (CT) scan revealed findings consistent with ultrasound and colonoscopy results, also indicating diverticulosis in the descending and sigmoid colon. Due to the uncertain etiology of the sigmoid wall thickening, a multidisciplinary team, including an oncologist, gastroenterologist, and surgeon, recommended resection of the affected intestine. Left hemicolectomy with colorectal anastomosis was performed. Although the surgeon initially suspected tumor infiltration, pathohistological analysis confirmed diverticulitis. The postoperative period was uneventful, and the patient was discharged.

Conclusion: Although tumors are the primary cause of sigmoid colon thickening without notable elevation in inflammatory parameters, the etiology can vary. Also, surgical exploration and resection of the colon serve as a diagnostic and therapeutic approach, clarifying the underlying causes of intestinal wall thickening and luminal narrowing.

Keywords: Carcinoembryonic antigen; C-reactive protein; Diverticulitis; Hemicolectomy; Neoplasms

CR12

Treatment with liraglutide can reduce bodyweight and increase fertility in women

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Introduction: Liraglutide is a glucagon-like peptide 1 (GLP-1) agonist which works primarily on hypothalamus by suppressing hunger and increasing satiety. It results in a decrease of food consumption and a significant body weight reduction. It is currently used for treating type 2 diabetes as well as for the treatment of obesity in non-diabetic population.

Case report: Female patient, age 40, obese with Body Mass Index (BMI) of 32,4 kg/m² and diagnosed with polycystic ovary syndrome (PCOS) struggled to get pregnant for several years. The patient previously tried various diets as well as different exercise regimes and regulation of hormones. Thyroid function test confirmed normal thyroid function, with Thyroid-Stimulating hormone (TSH) being 3,3 mU/l. Furthermore, HOMA-IR (Homeostatic Model Assessment of Insulin resistance) showed insulin sensitivity of 30,7%, insulin resistancy index of 3,3, beta-cell activity of 148,8%. The value of HbA1c was 5,1%. In addition to reduction in daily caloric intake of 500 calories and recommended physical activity, Liraglutide was prescribed. With regular monitoring, after 24 weeks, the patient lost a total of 25 kg and normalisation of menstrual cycle was achieved. Consequently, the treatment with liraglutide was discontinued and within three months of following the recommended diet and physical activity, the patient managed to get pregnant.

Conclusion: Liraglutide is a potent drug which shows great benefits in obese women, with PCOS, by reducing body weight and consequently insulin resistancy. It also decreases testosterone levels in overweight women with PCOS. The cumulative effect of liraglutide has positive influence on fertility, increasing fertility rates respectively.

Keywords: infertility; liraglutide; obesity

CR13

A rare case of peritonsillar abscess in post-tonsillectomy patient

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Introduction: Peritonsillar abscess is a localized accumulation of puss in peritonsillar space, and it is the most often complication of tonsillitis. It most commonly occurs among young adults and is usually caused by group A beta-hemolytic streptococcus. The presenting symptoms include fever, sore throat, dysphagia, and odynophagia. Occurrence of peritonsillar abscess post-tonsillectomy is rare.

Case report: A 17-year-old male presented to the emergency Ear, Nose, and Throat (ENT) service with symptoms of sore throat. The patient underwent tonsillectomy 9 years ago due to recurrent tonsillitis and had never had peritonsillar abscess before. Patient reported pain while swallowing on the right side of the throat and had fever up to 39 °C for the past three days. All vital parameters except fever (37,7 °C) were within normal values. Upon physical exam, bulging of the right anterior palatal arch was noticed as well as contralateral uvular deviation. Needle aspiration had been performed in suspected peritonsillar abscess area and pus was obtained. After aspiration, physician performed incision and evacuation of remaining purulent exudate. After the treatment patient was observed and discharged from the hospital with clindamycin antibiotic therapy.

Conclusion: We report a rare, but possible case of peritonsillar abscess formation in a patient who already underwent tonsillectomy. Remaining tonsillar tissue due to imperfect margins post-tonsillectomy is the most notable cause for this phenomenon, which was not the case in this presentation. Therefore, a clinical should always look out for a possibility of PTA formation even in post – tonsillectomy patients.

Keywords: peritonsillar abscess; tonsillitis; tonsillectomy

CR14

Tackling Refractory Ascites with transjugular intrahepatic portosystemic shunt insertion

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Introduction: Transjugular intrahepatic portosystemic shunt (TIPS) is an effective treatment approach for refractory ascites in patients with decompensated liver cirrhosis. However, a return to alcoholism can lead to further decompensation. Likewise, performing emergent surgical procedures in patients with cirrhosis is associated with an increased risk for postoperative mortality.

Case report: This is a case of a 38-year-old male patient with decompensated alcoholic cirrhosis. The first episode of decompensation with ascites was in January 2022. During 2022, he had been hospitalized three times for refractory ascites, unresponsive to maximum medical therapy (furosemide, spironolactone), necessitating repeated large-volume paracentesis. In February 2023, due to low model for end-stage liver disease (MELD) score (7) and refractory ascites, the TIPS was inserted with excellent results and complete resolution of ascites. In July 2023, the patient resumed alcohol consumption, after which ascites recurred and jaundice developed. In August 2023, he was admitted to the emergency department due to the incarceration of an umbilical hernia. At the time of surgery, his MELD was 18 and Child-Pugh 11C which put him at a high risk of postoperative mortality. Following the emergency surgery, spontaneous bacterial peritonitis developed. The patient was not considered for a liver transplant and soon died.

Conclusion: TIPS insertion can offer significant clinical improvement in case of refractory ascites, but resuming alcohol consumption poses a low chance of maintaining clinical stability. It should be emphasized that cirrhosis increases the risk of postoperative mortality, especially in the case of decompensated liver cirrhosis and an emergent type of surgery.

Keywords: Alcoholic liver disease; Liver cirrhosis; Transjugular intrahepatic portosystemic shunt

CR15

Clinical presentation of post traumatic injury due to gunpowder blast - a 40 year follow up

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Introduction: Gunpowder is the earliest known chemical explosive and it has been widely used until today. Gunpowder related ocular injuries are most commonly associated with the use of pyrotechnics due to inadequate handling, especially in younger people. Aim of this case report is to show the long-term presentation of the eye injury caused by gunpowder.

Case report: A 50-year-old male patient arrives at the Medkol Clinic for a general medical examination. Medical history showed that at the age of 10 he had a gunpowder injury to his right eye. At the time he was hospitalized and treated on an outpatient basis for two years, with no permanent defects of the eye. Patient denies disturbances of visual acuity throughout life. On the slit lamp exam multitudes of small opacities were found on the right cornea. In the lower part of the cornea were found degenerate changes near the limbus with neovascularization. Other findings of the anterior segment are appropriate for the age of the patient. Eye pressure and fundus examination were normal.

Conclusion: Post traumatic lesions of the cornea due to gunpowder injury persists after 40 years and it is a relevant clinical finding that should be thoroughly examined, taking into account anamnestic data and patients subjective complaints. Minor corneal defects do not cause problems in the quality of vision under normal conditions; however, they can cause vision problems in conditions such as driving at night. It is advisable to go for regular ophthalmological examinations and monitor the condition of the cornea.

Keywords: Blast Injuries; Corneal Injuries; Eye Burns

CR16

A rare facial nerve schwannoma presenting with vestibulocochlear symptoms

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Introduction: Facial nerve Schwannomas are rare, gradually developing benign tumors that arise from Schwann cells enveloping nerve axons. They manifest as facial paralysis, while compression of vestibulocochlear nerve can additionally lead to hearing loss and vertigo.

Case report: A 48-year-old woman presented to an otorhinolaryngology clinic with right-sided hearing impairment along with a sense of imbalance. Audiogram revealed sensorineural hearing decline in the right ear, whereas vestibular tests showed leftward horizontal-torsional nystagmus during eye movements and gaze fixation. Magnetic Resonance Imaging (MRI) didn't reveal any abnormalities. The patient was diagnosed with dysfunction in the right cochlea and vestibular system and subsequently received oral corticosteroid treatment. One year later, mild peripheral facial paralysis on the right side and persistent cochleovestibular symptoms were observed. Subsequent MRI revealed a 16 mm schwannoma affecting the facial nerve within the right internal auditory meatus. After two months, Gamma Knife treatment was administered, aiming to achieve lasting control over tumor growth. The tumor was targeted and irradiated with a prescribed dose of 12 Gy. Following surgery, the patient experienced significant improvement with no residual facial nerve palsy. Audiogram indicated persistent sensorineural hearing loss in the right ear, but without any worsening. An MRI performed 18 months post-radiosurgical treatment showed tumor size reduction.

Conclusion: Accurate diagnosis of these tumors requires careful evaluation of clinical and radiological findings, as well as the anatomical localization of the affected nerve and its adjacent structures. This comprehensive assessment is crucial to enable timely surgical intervention.

Keywords: facial nerve; gamma knife radiosurgery; peripheral facial paralysis; schwannoma; unilateral hearing loss

CR17

Unrecodnised Lynch Syndrome

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Introduction: Lynch syndrome is a type of inherited cancer syndrome associated with a genetic predisposition to different cancer types, such as colorectal cancer, endometrial cancer, stomach cancer and many others. It is caused by pathogenic germline variants in one of four DNA mismatch repair genes (MLH1, MSH2, MSH6, PMS2) or by an EPCAM deletion.

Case report: A 70-year-old female patient was hospitalized due to suspected alteration of the metaplastic changes in the gastric mucosa found during control esophago-gastroduodenoscopy. Discoloration and intestinal-type metaplastic changes with erosions were found on the antral mucosa. The patient's personal history is complicated with hysterectomy and adnexectomy performed due to carcinoma of the uterine corpus, appendectomy, sparing mastectomy due to findings of in situ carcinoma of the left breast, as well as right hemicolectomy and adjuvant therapy with capecitabine for adenocarcinoma of the rectum. Upon admission, the patient denies any subjective complaints. . Given the extensive oncological history, the patient is being treated under the working diagnosis of Lynch syndrome. On the second day of hospitalization, total gastrectomy was performed with esophagojejunal anastomosis using Roux-en-Y technique. The histopathological analysis of gastric mucosa biopsies taken intraoperatively confirms the diagnosis of gastric adenocarcinoma with the presence of atypical epithelial cells resembling signet ring cells. The patient is discharged home on the eighth postoperative day in good general condition.

Conclusion: Early recognition of cancer syndromes is of utmost importance to improve the healthcare of oncology patients and contribute to the early detection of diseases through more frequent check-ups.

Keywords: Colorectal Neoplasms; Hereditary Nonpolyposis; Adenocarcinoma; Gastrectomy

CR18

3D printed cranioplasty: Case report of eosinophilic granuloma in a 17-year-old boy

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Introduction: When larger resections are required for excision of infiltrative tumors, a decompressive craniectomy is usually employed. In larger skull defects, autografts are prone to bone resorption and infection. However, synthetic-material implants can be used, as these have a lower rate of complications.

Case report: A 17-years-old boy noticed an unusual edema, painful after finger compression, upon the right-sided orbit. Eosinophilic granuloma, as suspected after cytologic biopsy, was confirmed postoperatively by pathohistological verification. Patient underwent craniotomy at tumor site after bicoronal approach. Images obtained by computed tomography (CT) were used to generate computer-aided design (CAD) 3D model and design the molds. On the operative day, the molds were pretreated and sterilized. The polymethyl-methacrylate (PMMA) mixture was prepared and placed between the two mold parts which were left in a cold saline solution during polymerization. Operculum was then implanted at the site of craniotomy and fixed with mini-plates and screws. Surgery went uneventfully and no cerebrospinal fluid leak, hemorrhage, wound infection, or wound dehiscence were noted during an early postoperative period and later follow-up period. Postoperative CT scan revealed an excellent position of the operculum and confirmed the complete restoration of anatomical and geometrical boundaries of the skull. Wound healed properly with an excellent cosmetic effect.

Conclusion: Complications of cranioplasty include implant infection, implant protrusion, bone resorption, and wound dehiscence all of which can lead to implant failure. Use of 3D printed molds, and PMMA reduces the risk of complications and improves outcome, highlighting the need for multidisciplinary team, consisting of maxillo-facial surgeons, neurosurgeons, and radiologists.

Keywords: Artificial implant; Cranioplasty; PMMA; Three-dimensional imaging

CR19

Interstitial lung disease and respiratory insufficiency caused by antisynthetase syndrome – a case report

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Introduction: Antisynthetase syndrome is a rare autoimmune disease, also classified as an idiopathic inflammatory myopathy, characterized by autoantibodies against aminoacyl transfer RNA synthetases along with a clinical presentation of interstitial lung disease (ILD), non-erosive arthritis, myositis, Raynaud's phenomenon, unexplained fever and/or mechanic's hands.

Case report: 41-year-old male was hospitalized for progressive dyspnea, cough, malaise and general fatigue that gradually developed over the last three months. The patient also complained of myalgia and arthralgia, especially in his hands, along with cracking of the skin on his fingertips. The patient was initially treated with oxygen therapy, oseltamivir (due to acute influenza infection diagnosed at admission), and broad-spectrum antibiotics. Given the history of symptoms and lack of radiological improvement (computed tomography suggestive of ILD), additional diagnostic workup revealed the presence of anti-Jo1, anti-SSA, anti-SSB autoantibodies, and high rheumatoid factor. We started the treatment with high doses of corticosteroids and intravenous immunoglobulins and this resulted with initial improvement. In the further course of treatment, he also received cyclophosphamide pulse therapy along with tenofovir to prevent reactivation of his chronic Hepatitis B infection and attended pulmonary rehabilitation. With the treatment, the patient's condition significantly improved.

Conclusion: This case shows a rare autoimmune disease with ILD as the main presentation. Given the many different causes of ILD as well as its complexity, this case highlights the need for a multidisciplinary approach to diagnosis and treatment.

Keywords: antisynthetase syndrome; idiopathic inflammatory myopathy, familial; interstitial lung diseases, Jo-1 antibody

CR20

Transcatheter mitral and tricuspid valve repair – cascade approach in a patient with severe mitral and tricuspid valve regurgitation

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Introduction: Transcatheter edge-to-edge repair (TEER) is a percutaneous procedure used to treat severe mitral and tricuspid regurgitation (MR, TR) in selected patients with a high surgical risk.

Case report: A 75-year-old male patient with post-myocarditis cardiomyopathy, reduced left ventricular ejection fraction (35%) and implanted cardioverter-defibrillator (ICD) 8 years ago, was admitted due to heart failure (HF). Echocardiography revealed severe MR and TR along with worsening of both left and right ventricular function. Due to comorbidities (atrial fibrillation, thrombocytopenia), right-sided heart failure, and pulmonary arterial hypertension, valve surgery and advanced treatment options for HF were denied. The Heart team decided to perform MV TEER – one year ago, 2 clips were implanted (guided by echocardiography), with the optimal result. However, the patient was repeatedly hospitalized due to right-sided HF and worsening of TR. After vigorous volume unloading with IV diuretics, along with dobutamine and levosimendan, TV TEER was performed. Two clips were implanted, with residual moderate TR. The procedure was complicated with gastrointestinal bleeding. An urgent gastroscopy was performed, revealing active bleeding in the gastric cardia, where an anomalous artery was seen. A total of 8 hemostatic clips were placed.

Conclusion: In this case, the cascade TEER approach was used, first treating MR. This procedure has become a valuable option for high-risk patients with no other treatment alternatives. Although the long-term improvement in the survival rate is doubtful, improvements in functional capacity, reduction in heart failure hospitalizations, and enhancement in the quality of life are to be expected. Careful patient selection and preparation for the procedure are crucial to improve outcomes and prevent complications.

Keywords: Cardiomyopathies; Echocardiography; Mitral Valve Insufficiency; Tricuspid Valve Insufficiency

CR21

Trapezius Muscle Flap Resurgence: Addressing Severe Carcinoma Relapse with Surgical Expertise

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Introduction: The regional trapezius muscle flap (TMF) is an old and well renowned reconstructive method of the head and neck region which has fallen into oblivion today in the era of various free flaps. Still in some selected cases where complex and lengthy procedures are to be avoided it can be an excellent reconstructive solution.

Case report: A 78-year-old male, previously treated from skin lesions in the forms of basocellular (BCC) and planocellular carcinomas (PCC), presents with a relapse of a PCC of the right earlobe. The lesion progressed to the right occipital region, with a performed biopsy confirming PCC. Multi-sliced computed tomography (MSCT) showed local and regional progression of the tumor to occipital bone, musculature of the neck and parotid gland. Wide radical excision of the skin and subcutaneous tissue of the posterior scalp all the way to the skull was performed. Part of the calvarial bone was removed with a rotating burr. TMF was elevated on its vascular pedicle from the right side of the back and transferred to the defect. Muscle was covered by the mesh split thickness skin graft taken from the right thigh. Postoperatively trapezius flap was vital with good adherence of the skin graft which led to an esthetically pleasing reconstruction for the patient.

Conclusion: The regional TMF can be a useful, quick and simple reconstructive option for the posteriorly located defects of the head and neck where it can replace the need for more complex reconstructive procedures especially in comorbid patients with advanced American Society of Anesthesiologists (ASA) status.

Keywords: Muscle, trapezius; Carcinoma, planocellular; Grafting, skin; Excision

CR22

The dangers of vascular complications following liver transplantation - a case report

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Introduction: This case report highlights the surgical challenges encountered during liver transplantation, specifically focusing on hepatic artery thrombosis (HAT) and hepatic venous outflow obstruction (HVOO). HAT is a feared complication post-liver transplant, occurring in up to 9% of adult recipients, which represents a major cause of graft loss and mortality. HVOO is a rare but serious complication that occurs in 3-4% of transplants where the recipient's inferior vena cava (IVC) was preserved.

Case report: The patient is a 58-year-old woman, who had been frequently hospitalized for liver cirrhosis of ethylic etiology with sequelae such as ascites, portal encephalopathy, and renal injury, and she was put on the transplant list a year after the initial diagnosis. Her first liver transplant, performed using the piggyback technique, was followed by HAT, confirmed via computed tomography (CT) angiography. The initial approach involved close monitoring but the thrombosis at the anastomosis site resulted in segmental liver ischemia, prompting her to be put on the transplant list a second time. The second liver transplant employed the same technique but led to HVOO, resulting in severe hemodynamic instability. The surgical response involved a latero-lateral anastomosis of the IVC and the innovative use of a tissue expander retrohepatically to alleviate the graft-induced pressure, successfully addressing the outflow obstruction.

Conclusion: This case underscores the importance of vigilant postoperative monitoring and adaptability in liver transplantation surgery. The management of HAT and HVOO reflects the dynamic and highly skilled nature of such procedures, emphasizing the need for a multidisciplinary approach in high-risk surgical scenarios.

Keywords: Hepatic Venous Outflow Obstruction, Liver Transplantation, Thrombosis

CR23

Two Birds with One Stone: Simultaneous Remission of Non-Hodgkin Lymphoma and Metastatic Breast Carcinoma

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Introduction: Breast cancer (BC) is the most common female malignant disease, accounting for 30% of new female cancers annually, while non-Hodgkin lymphoma (NHL) accounts for only 4%. While studies have shown that BC increases the risk of NHL development, synchronous presentation of the two is still extremely unlikely. We present one such case in which remission of both conditions was achieved for a 10-year period.

Case report: In 2013, a 65-year-old female patient was diagnosed with stage IV large B-cell NHL and metastatic ductal breast carcinoma which was identified as HR-positive and HER2-negative. The primary BC was shown on mammography and multiple enlarged groups of axillary lymph nodes, as well as pleural metastases, were detected by computed tomography. Both malignant conditions were confirmed by biopsy of the metastases. The patient was given eight cycles of the R-CHOEP protocol and achieved complete remission of NHL with minimal residual BC. Maintenance letrozol therapy was given over the next 10 years, with surgical removal of the residual primary breast tumor after three. In 2023, recurrence of BC pleural metastases was discovered and fulvestrant and ribociclib therapy was initiated.

Conclusion: The R-CHOEP protocol, typically used for NHL treatment, simultaneously provided adequate chemotherapy for BC (cyclophosphamide and doxorubicine). While the treatment achieved a great result, the therapy introduced after the relapse demonstrates a modern approach to metastatic BC. Although advancements made in BC therapy over the last decade are beyond impressive, this case illustrates how a dated treatment regimen successfully tackled a complex clinical problem.

Keywords: Breast Neoplasms; Neoplasm Metastasis; Non-Hodgkin Lymphoma

CR24

Extracorporeal septoplasty in severe posttraumatic nasal septum deformity: Case report

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Introduction: Septal deviation is a functional and aesthetic issue that can be congenital or result from trauma. Extreme deviations pose challenges for treatment and traditional partial or subtotal submucosal septoplasty is not an adequate treatment method. Extracorporeal septoplasty provides the surgeon with direct visualization of the complete cartilaginous septum during the correction of deformities through an open approach and is used in the treatment of severe septal deviations. After straightening the septum, it's important to perform stable fixation of the reimplanted septum.

Case report: A 24-year-old male underwent examination and consultation about nasal deformity caused by a horse kick to the nose several years earlier. A septal and nasal bone fracture with extreme septal deviation was observed. Mid-vault deformation and thickening was observed, with complete right-sided nasal obstruction. The patient underwent open-approach rhinoplasty and extracorporeal septoplasty, with the straightened septum reimplanted and fixated to the K-area, with spreader grafts aligned to keep the septum straight and stable. The surgery achieved great functional and aesthetic results. At 12-months follow-up, there was minimal deviation of the septum and the postoperative course was unremarkable. The patient was satisfied with the aesthetic outcome of the surgery and reported no functional issues.

Conclusion: Extracorporeal reconstruction of the nasal septum is an essential method for correcting pronounced deviations where traditional septoplasty of lesser extent is not helpful. Fixating the straightened and replanted septum at the nasal spine and dorsal septum border with the upper lateral cartilages is crucial for achieving favorable anatomical and functional outcomes, alongside using spreader and dorsal grafting where indicated.

Keywords: Esthetics; Nasal septum; Rhinoplasty

CR25

Minimally invasive surgical treatment for paralytic lagophthalmos: a pioneering modified gold weight insertion procedure

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Introduction: Paralytic lagophthalmos (PL) results from facial nerve paralysis, causing incomplete closure of the eyelids. Treatment options vary from conservative measures to surgical interventions, and, non-surgical, botulinum toxin injections. Our case unveils a novel procedure - the sutureless transconjunctival insertion of a gold weight as a treatment option for PL.

Case report: A 65-year-old female, previously treated for acoustic neuroma, presented with right eye paralytic lagophthalmos. Despite conservatively managed symptoms of eye dryness and pain with a visual acuity of 20/20 and insufficient Bell's phenomenon, poor facial nerve function in the left eye (peripheral facial nerve palsy), necessitated upper eyelid surgery. Opting for efficiency and reduced complications, a sutureless transconjunctival insertion of a 1g gold weight was chosen. The gold weight mass was determined by assessing active eyelid closure with consecutively heavier weights. Under local anesthesia, the upper eyelid was secured, everted, and a 5mm vertical incision through the palpebral conjunctiva and tarsal plate was made. Creating a pocket in the pretarsal plane, a concave gold weight was longitudinally inserted, parallel to the eye globe curvature. Postoperatively, aesthetic appeal was satisfactory, with bilateral eyelid symmetry and no visible gold weight protrusion. The patient regained the ability to fully close the eye. Follow-up revealed the cessation of previously present symptoms and no complications were noted.

Conclusion: The described surgical approach offers a practical, minimally invasive alternative to a traditional treatment approach for PL. It yields a satisfactory aesthetic and functional outcome without external incisions or sutures and, therefore, could be the leading approach in PL surgery.

Keywords: Acoustic Neuroma, Eyelid Diseases, Facial Paralysis, Peripheral; Ophthalmologic Surgical Procedures

CR26

Challenges in the diagnosis of painful ophthalmoplegia

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Introduction: Painful ophthalmoplegia is a condition characterized by pain of periorbital area and restricted ocular motility. It requires extensive diagnostic work-up due to its wide differential diagnosis.

Case report: Our patient is a 70-year-old female. Her personal history includes arterial hypertension, cardiomyopathy, hyperlipidemia and hypothyroidism. She underwent cataract surgery of her right eye 5 years ago. In June, she began experiencing sharp pains in right periorbital and retrobulbar region with epiphora and horizontal diplopia. For several days, cough and rhinorrhea were also present. Upon initial examination, she had right bulbus divergence and right upper eyelid ptosis. The symptoms persisted for a month. She was hospitalized and subsequently underwent extensive diagnostic work-up. Serological tests were normal, except for elevated thyroid peroxidase and thyroglobulin antibodies. Serum biochemical findings showed elevated liver enzymes and aldolase. Cerebrospinal fluid was normal. Serology for neurotropic viruses, bacteria and tumor markers were negative. Brain MRI showed thickening of right m. obliquus superior and m. rectus medialis with changes that favor myositis. She was treated with intravenous methylprednisolone for 5 days, after which oral prednisone was introduced with gradual de-escalation. She was subjectively and clinically better within 24 hours of start of therapy.

Conclusion: Idiopathic orbital myositis is a rare disease similar to thyroid orbitopathy, but with sudden onset and progression. It's diagnosed by exclusion method or retrograde, because it responds well to corticosteroids. It's more common in young and middle-aged females. Affection of 2 or more muscles holds higher risk of relapse.

Keywords: corticosteroids; differential diagnosis; myositis

CR27

Von Hippel-Lindau Syndrome and Pancreatic Cysts: A Spotlight On Tumor Surveillance and Early Detection

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Introduction: Von Hippel-Lindau (VHL) syndrome is a rare hereditary neurocutaneous disorder distinguished by its propensity for the development of both benign and malignant tumors such as cerebellar hemangioblastomas, retinal angiomas, clear cell renal carcinomas, pancreatic neuroendocrine tumors, and others. Additionally, multiple pancreatic, renal, and urogenital cysts may also develop, potentially giving rise to localized symptoms and the risk of malignant transformations.

Case report: This case study centers on a 54-year-old male patient who was flagged for potential tumorous lesions in both kidneys upon undergoing a comprehensive health assessment. Following a multi-slice computed tomography (MSCT) guided biopsy, the presence of clear cell renal carcinoma was bilaterally confirmed. An abdominal MSCT delineated an enlarged pancreas featuring multiple cystic formations. Then, an Endoscopic Ultrasound (EUS) examination detailed the presence of multiple cysts in the pancreatic region, forming conglomerates with a collective dimension of up to 80 mm. Following an EUS-FNA (fine needle aspiration) procedure, cuboidal epithelium within the cyst was identified, and a biochemical analysis revealed normal levels of carcinoembryonic antigen, amylase, and glucose. The combination of these findings, along with the patient's medical history, raised suspicions of serous cystadenoma and prompted consideration of VHL syndrome. Finally, a heterozygous missense variant in the VHL gene was detected by sequencing genes included in the clinical exome panel.

Conclusion: Distinguishing cystic pancreatic lesions, which can give rise to endocrine and/or exocrine insufficiency or be asymptomatic, from potentially malignant lesions is of paramount importance. Therefore, diligent tumor surveillance associated with VHL syndrome is crucial for timely detection and treatment.

Keywords: Kidney Neoplasms; Pancreatic Cyst; von Hippel-Lindau Disease

CR28

Tracheoesophageal fistula as a complication of radiotherapy in lung cancer

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Introduction: Lung cancer often requires multiple treatment modalities, with chemoradiotherapy being common in non-metastatic stages. Despite its effectiveness, complications from radiotherapy often do occur.

Case report: A 63-year-old male patient was diagnosed with inoperable stage IIIb non-small cell lung cancer (NSCLC) in September of 2022, expressing programmed death-ligand 1 (PD-L1) at 10%. The 6x6x3 cm tumor was located in the right lung centrally, closely contacting the distal trachea and main bronchus. The patient underwent chemoradiotherapy with 60 grays (Gy) in 30 fractions and 5 concomitant cycles of chemotherapy with paclitaxel and carboplatin. A computed tomography (CT) scan of the thorax, abdomen, and pelvis after 4 weeks showed tumor reduction without disease spread. The patient began immunotherapy with durvalumab on January 17th of 2023, receiving 11 cycles in total. In October of 2023, he was hospitalized due to cough, febrility, pneumonia, and vomiting. CT scans of the thorax and esophagus confirmed a tracheoesophageal fistula. The patient was deemed unsuitable for stent placement by the interventional radiologist and instead underwent gastrostomy on November 20th of 2023, as advised by a multidisciplinary team. Despite this, the patient died within a month due to fistula complications.

Conclusion: Tracheoesophageal fistula occurs in less than 1% of lung cancers, often due to tumor necrosis following chemoradiotherapy. Symptoms frequently overlap with those of radiotherapy—cough, aspiration pneumonia (over 95% of cases), and dysphagia—and may go unrecognized for months. Therefore, early differential diagnosis is crucial for effective treatment in case of a fistula.

Keywords: Chemoradiotherapy; Fistula; Lung Neoplasms

CR29

Bilateral retinal detachment as a rare manifestation of syphilis

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Introduction: Syphilis is an infectious disease caused by spirochete *Treponema pallidum*. Ocular presentations are rare but can happen at any stage of the disease. Almost any part of the eye can be affected, uveitis being the most common manifestation. The probability of syphilis affecting both the central nervous system and the eyes is higher in cases of HIV (human immunodeficiency virus) co-infection. Ocular syphilis is treated as neurosyphilis.

Case report: We present a case of a 40-year-old HIV-negative patient with syphilis. Over the course of four months, he had papilledema two times and was treated with antibiotics and corticosteroids. After discontinuation of antibiotic therapy, exacerbation occurred. Serous retinal detachment was confirmed using ultrasound in both eyes, and prednisone, Isozid, and adalimumab were prescribed. Despite initial improvement with the initiation of adalimumab therapy, treatment was later discontinued because of the worsening of the clinical picture. Fundus examination showed complete, serous retinal detachment in the right eye, and hyperemic papilla nervi optici with indistinct margins and progressing serous retinal detachment inferiorly in the left eye. The left eye was surgically treated, accomplishing a fully reattached retina. As a result, the patient's vision in that eye was preserved.

Conclusion: Penicillin is an antibiotic of choice for treating ocular syphilis, following neurosyphilis protocol. A common approach is combination therapy consisting of antibiotics and corticosteroids or immunosuppressants, despite there being no proven benefits. Further research is needed on the role of corticosteroids in patients with severe ocular inflammation and macular edema.

Keywords: Papilledema; Retinal Detachment; Syphilis

CR30

A Case Report: Manifestations of systemic sclerosis in a male patient

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Introduction: Systemic sclerosis (SSc) is an autoimmune disease characterised by sclerodermatous skin changes, vasculopathy and involvement of internal organs. The etiology remains unknown but is believed to involve a combination of genetic and environmental factors leading to the accumulation of extracellular matrix. The prevalence of SSc is higher in women but tends to have a more severe outcome in men.

Case report: In this case report, we present a 68-year-old admitted to the ER due to swelling, redness, and tenderness of the first metatarsophalangeal joint of the left foot. Initial symptoms suggested gout, but the disease rapidly progressed to swelling of the hands and face, skin thickening and tightness, dysphagia and Raynaud's phenomenon. The patient was admitted for further evaluation and the diagnosis of SSc was confirmed by positive specific autoantibodies in addition to clinical symptoms. Capillaroscopy showed a late scleroderma pattern, while pulmonary function tests indicated mild obstruction and reduced diffusing capacity of the lungs for carbon monoxide. Echocardiography detected ischemic cardiomyopathy with pulmonary hypertension. Due to digital ulcerations, vascular and plastic surgeons were consulted. Emergency colour doppler imaging identified left posterior tibial artery occlusion. Subsequently, a computed tomography angiogram of the lower extremities described microangiopathic changes in feet. Due to gangrene development, amputation of the right lower leg was performed. The patient is currently stable, and further follow-up is scheduled by rheumatologist and vascular surgeons.

Conclusion: Gender disparities play a role in the severity of SSc. The most serious complications are interstitial lung disease and pulmonary arterial hypertension, which are reported to be more prevalent and severe among male patients.

Keywords: Surgical Amputation; Polyarthralgia; Systemic Sclerosis

CR31

Anesthesia in plastic surgery - couldn't be easier?

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Introduction: Anesthesia in plastic surgery often goes without complications. This case report aims to highlight the significance of monitoring patients during procedures, in order to minimize adverse events.

Case report: A 56-year-old woman with inguinal liposarcoma was scheduled for elective surgery. Due to bilateral vocal cord paralysis and asthma creating high perioperative risk of airway complications, spinal anesthesia was suggested and successfully performed using levobupivacaine. Unexpectedly, the operating field needed to be extended cranially and anesthesia converted to general. Considering the possible need for an emergency cricothyroidotomy, an ear, nose and throat (ENT) team was called into the operating room, ready to intervene if necessary. Upon extended preoxygenation, rapid sequence induction was performed to avoid potentially difficult mask ventilation resulting from vocal cord paralysis. Smaller size endotracheal tube was chosen and successfully inserted. After induction, her blood pressure dropped from 130/70 to as low as 65/35 mmHg and invasive blood pressure monitoring was suggested. However, the insertion of arterial catheter was difficult and was eventually performed with the aid of an ultrasound. Due to low blood pressure persisting, central venous catheter was placed and inotropic agent was started as a continuous infusion. After the procedure, the patient was administered into the intensive care unit, where she was successfully extubated.

Conclusion: In the operating room, there is no guarantee that the procedure will always go exactly as planned. For anesthesiologists, it is crucial to be aware of all the possible complications, and always be prepared for them, one step ahead at all times.

Keywords: hypotension; liposarcoma; rapid sequence induction and intubation; spinal anesthesia

CR32

A case of seemingly simple cellulitis

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Introduction: Cellulitis is the most common infection among intravenous (IV) drug abusers. It is an infection affecting the skin and underlying tissue, leading to redness and pain in the affected limb. Treatment consists of antibiotic therapy but if complications arise, surgical intervention may be required.

Case report: A 21-year-old IV drug abuser presented to the emergency department with worsening local findings after an abscess incision on his left forearm done the previous day. Physical examination revealed warm, red and edematous left fist and distal part forearm, as well as purulent discharge from the incision wound. Neurocirculatory status of the arm was adequate and the patient was afebrile. Laboratory tests revealed leukocytosis ($15.3 \times 10^9/L$) and elevated C-reactive protein (123.3mg/L). The on-call plastic surgeon performed wide reincision of the wound, during which a chronically altered and thrombosed cephalic vein was visualized as well as diffuse inflammation with significant edema of the surrounding tissue. Surgeons then performed vein resection and fasciotomy due to the possible development of compartment syndrome. Patient was admitted to the Department of surgery and after 5 days of intravenous antibiotic therapy he was discharged with improved local status and reduced inflammatory markers.

Conclusion: Cellulitis can lead to serious complications in certain groups of patients, including limb loss, sepsis and death. Instead of treatment solely by antibiotic therapy, complications of cellulitis may require surgical intervention, which is why timely recognition and treatment in IV drug abusers is crucial to prevent complications and promote healing.

Keywords: Cellulitis; Compartment Syndromes; Substance Abuse, Intravenous

CR33

Breast reconstruction using deep inferior epigastric perforator (DIEP) technique

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Introduction: Breast reconstruction is a vital aspect of breast cancer management, employing various techniques such as autologous tissue transfer or implants. The deep inferior epigastric perforator (DIEP) technique uses vascularized skin and fat from the lower abdomen to reconstruct the breast, involving microsurgical anastomosis of the inferior epigastric artery to the internal mammary artery. Breast reconstruction can be performed simultaneously with the mastectomy or after the surgical incisions have healed and any other therapy has been completed.

Case report: A 25-year-old woman with multiple bilateral fibroadenomas underwent a MRI (magnetic resonance imaging) with contrast. The MRI revealed contrast-enhancing lesions in the bottom right quadrants, consistent with findings identified four years prior however, new oval lesions were identified in the right medial and right lateral quadrant of the right breast as well as multiple lesions in the left breast. In a comprehensive procedure, skin-sparing mastectomy and lymphadenectomy were performed concurrently with DIEP breast reconstruction.

Pathological analysis indicated the presence of fibroadenomatous tissue and ductal carcinoma in situ (DCIS) in both breasts, without evidence of lymphoid tissue invasion. The patient received adjuvant immunotherapy and recovered without complications. She remains cancer-free nine years later.

Conclusion: This case highlights the effectiveness of DIEP reconstruction in bilateral breast cancer, emphasizing preoperative assessments for vascular adequacy. The comprehensive approach of combining mastectomy, lymphadenectomy, and immediate reconstruction, contributed to successful long-term outcomes, emphasizing the significance of personalized strategies in breast cancer management.

Keywords: Mammoplasty; plastic surgery; reconstructive surgery

CR34

Managing Second-Degree Burns: Multidisciplinary Approach and Recovery of a Patient with 50% Total Body Surface Area Burns

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Introduction: Second-degree burns involve injury to both the epidermis and dermis layers of the skin, leading to pain, blistering, and erythema. The aim of this case report is to show the treatment and recovery process of a patient with severe burns, highlighting the strategies involved in managing such a condition.

Case report: We present a case of 41-year-old man, who sustained a gas-related injury at work resulting in second-degree burns covering 50% of his body. He experienced injuries to his head, neck, arms, shoulders, legs, and respiratory passages. Upon arrival at the ER (emergency room), he was in hypovolemic shock and subsequently sedated while on invasive mechanical ventilation and infusion. Following initial wound care and Aquacell Ag dressings, he spent sixteen days in the ICU (intensive care unit). He received analgesic therapy, underwent tracheostomy, and received meticulous wound care with Dermazin application. After three days, analgesia was reduced to facilitate awakening. Following five days of weaning from mechanical ventilation, he transitioned to supplemental oxygen via nasal cannula. Post-ventilation withdrawal, physical therapy was initiated. He was then transferred to a general and plastic surgery ward for seven days, where he received additional therapy and daily wound care. Upon complete epithelialization of his burns, he was discharged home with instructions for follow-up appointments every three days for wound dressing.

Conclusion: Second-degree burns present significant medical challenges due to their potential for extensive tissue damage and associated complications. Management requires a multidisciplinary approach, including wound care, analgesia, respiratory support and physical therapy.

Keywords: analgesia; burns; shock

CR35

Caesarean scar ectopic pregnancy – What if medical termination of pregnancy does not work?

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Introduction: Caesarean scar pregnancy (CSP) is a type of ectopic pregnancy that indicates complete or partial implantation of the gestational sac into the niche (dehiscence at hysterotomy site) or scar of the prior cesarean section. CSP differs from other ectopic pregnancies in its potential for fetal development despite the non-physiological implantation site. However, due to the high morbidity in advanced pregnancy, primarily life-threatening bleeding, early termination of pregnancy is recommended.

Case report: A 45-year-old female, who had previously undergone four cesarean sections, presented at the OU with scanty vaginal bleeding. Ultrasound showed a gestational sac with a diameter of 13 mm in the area of the uterotomy scar, which together with a beta-human chorionic gonadotropin level of 5170.20 IU/L suggested the diagnosis of ectopic pregnancy in the caesarean section scar area. The patient was referred for medical termination of pregnancy, which consisted of orally administered mifepristone with a previously given antiemetic, followed by misoprostol after 32 hours. If bleeding does not occur, an additional dose of misoprostol is required, which was the case here. Despite the additional measures, the patient didn't respond to the therapy with the expected bleeding, so a different approach was required. In consultation with the patient, the method of choice was Karman endometrial aspiration. Post-procedural examination with a transvaginal probe showed an empty cavum. The patient was discharged in good condition.

Conclusion: In the era of rapid growth of the number of cesarean sections one should expect a rise of morbidities like CSP, but there are still no clear guidelines regarding CSP management. In this case, the minimally invasive method of endometrial aspiration proved suitable, but further research is needed.

Keywords: Caesarean Section; Ectopic Pregnancy; Uterine Aspirator

CR36

Treatment of patient with lung cancer and ALK rearrangement proven in metastasis

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Introduction: It is known that the molecular profile of tumor can change after different types of therapies. Therefore, there is a possibility that patients who were initially not candidates for targeted therapy, may become candidates in the meantime.

Case report: A 58-year-old male patient was diagnosed with stage IIIb non-small cell lung cancer in October of 2020. The tumor was negative for anaplastic lymphoma kinase (ALK) rearrangement with programmed death – ligand 1 (PD-L1) expression of 10%. Concomitant chemoradiotherapy was performed in a dose of 60 Gy in 30 fractions with 6 cycles of chemotherapy. An evaluation computed tomography (CT) scan showed a regression of the tumor and the patient started durvalumab immunotherapy on 09.03.2021. After the 9th cycle of durvalumab, the patient complained of dizziness and magnetic resonance imaging (MRI) of the brain showed a metastasis at the transition of the medulla oblongata into the pons. A neurosurgery was performed on July 27, 2021. Pathohistologically, it was a lung cancer metastasis with a positive ALK rearrangement. The patient started alectinib therapy on 01.09.2021. and received a total of 7 cycles. The last evaluation CT scan showed stable disease but despite a good disease control, death occurred in April of 2022 due to the complications of surgery (almost complete inability to swallow).

Conclusion: This example shows the possible discrepancies between the molecular profile of the primary tumor and metastasis and highlights the importance of repeating the tumor biopsy when metastases occur due to the possibility of a change in the treatment modality.

Keywords: Anaplastic Lymphoma Kinase; Lung Neoplasms; Neoplasm Metastasis;

CR37

Morgellons disease – myth or real disease?

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Introduction: Morgellons disease is a controversial condition characterized by severe pruritus and presence of skin lesions. Etiology is unknown. It is characterized by microscopic findings of unusual fibers of various colors located beneath the skin. This case report emphasizes the importance of further research and diagnosis of potential causes and treatments for this disease.

Case report: We present the case of a 64-year-old male referred for dermatological examination due to the presence of crusts and itching throughout his body, which had been present for the past few months. Physical examination revealed depigmented macular changes on the skin of the hands, forearms, and inguinal regions, as well as crusts and erosions on the scalp and limbs. Bacteriological swab of skin lesions and a test for *Sarcoptes scabiei* were performed. Neither the adult mites nor the eggs of *Sarcoptes scabiei* were found with direct microscopic method. However, regular fibers of various colors and twists were identified microscopically in the dermis of skin scrapings, raising a suspicion of Morgellons disease. Prescribed treatment included intramuscular methylprednisolone, oral fexofenadine and antibiotic and oral prednisone, along with local application of antibiotic and corticosteroid therapy to the scalp and skin lesions. On follow-up examination, the patient reported a reduction in symptoms and a significant regression of skin changes was noted with the persistence of localized erosions on the scalp and depigmented macules on the limbs.

Conclusion: Morgellons disease is often a misdiagnosed condition of unknown etiology. Nonspecific symptoms and unusual microscopic findings of multicolored fibers have prompted more intensive research of this disease. Current research is considering potential psychiatric and infectious causes.

Keywords: disease; Morgellons; pruritus; *Sarcoptes scabiei*

CR38

From Lawn Mowing to Coma: An Unfortunate Sequence of Events

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Introduction: Basic life support, including cardiopulmonary resuscitation (CPR), is vital during emergencies. Chest compressions performed by non-medical staff, without proper ventilation, may limit efficacy. Insufficient airflow compromises circulation, hindering oxygenated blood supply to the brain and causing ischemic brain injury.

Case report: An ordinary lawn-mowing task took a drastic turn, when the 39-year-old patient draped a sweat-soaked shirt over an electrically charged clothes rack, resulting in electrocution. Despite neighbors reviving him, the period of brain oxygen deprivation remained uncertain. Patient was transported via ambulance to the hospital in Našice where he underwent tracheotomy. Despite stability in vital signs, the patient remained unresponsive, leading to a diagnosis of hypoxic-ischemic brain injury. Throughout the treatment course, the patient tested positive for COVID-19, complicating the clinical picture. During the course of treatment, a percutaneous endoscopic gastrostomy (PEG) tube was inserted to provide nutritional support to the patient. Concurrently, recurrent urinary infections added to the complexity of the case. Administration of antibiotics was a crucial part of the multifaceted treatment, and the patient underwent intermittent hospital stays in Našice. The patient underwent deep brain stimulation surgery in Zagreb, where electrodes were implanted into the thalamus by a neurosurgeon. Despite daily activation of the deep brain stimulator, tangible improvements or substantial results were notably limited.

Conclusion: Despite extensive medical efforts, the patient, in a state of coma vigil, faces enduring challenges associated with severe brain injury. Ongoing efforts focus on rehabilitation and physical exercises in the pursuit of an enhanced quality of life.

Keywords: Brain; Coma; Ischemia; Resuscitation

CR39

Successful treatment of polytraumatized patient with open pelvic fracture and severe soft tissue injuries complicated by sepsis - case report

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Introduction: Polytrauma with an open pelvic fracture is an extremely devastating injury with high mortality. Multidisciplinary approach and initial treatment are crucial to prevent complications. We aim to underline the significance of such measures in achieving optimal patient outcomes.

Case report: We present a 25-year-old pedestrian struck by a bus. After a primary survey and resuscitation, the computed tomography (CT) scan revealed the following injuries: an open 'C-type' pelvic fracture with a large wound in the gluteal region extending towards the perineum and anus, as well as a multifragmentary femur fracture. Initially, volume replacement was performed, followed by operative procedures for the external fixation of fractures and the creation of a colostomy. The treatment was complicated by bacterial sepsis resulting from the primary contamination of the wound, necessitating continuous antibiotic therapy and multiple surgical procedures. During the two-month hospital stay, numerous debridements were performed, and a negative pressure wound therapy was applied. The local status gradually improved and the patient recovered from sepsis. The external fixation was removed three months after placement, and colostomy closure was performed eight months later. At the latest follow-up, the patient demonstrated independent mobility, and his bowel, urinary, and sexual functions were all normal. The gluteal wound completely healed, and scintigraphy confirmed the absence of inflammation.

Conclusion: This case demonstrates that satisfactory fracture healing and wound closure can be achieved despite a major complication such as sepsis. This success can be attributed to a timely and individualized set of treatments and diligent postoperative care.

Keywords: Bacteremia; Polytrauma; Fractures, Multiple; Soft Tissue Injuries

CR40

Case report of a firefighter with second and third-degree burns

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Introduction: Burns are a significant medical problem and they are defined as damage to the skin and underlying tissues caused by heat, chemicals or electricity. Burn injuries can be classified by their depth, etiology and percentage of the affected area. The American Burn Association classifies burns by depth: superficial (first-degree), partial-thickness (second-degree), and full-thickness (third-degree).

Case report: A 36-year-old firefighter was brought to the Emergency Department with extensive burns sustained during fire extinguishing. He suffered injuries from falling into a hole filled with melted plastic and he was immediately taken to the operating room. The burns were located on both forearms and palms, mostly second-degree and a smaller portion third-degree. Burns on both thighs and shins were second-degree. During treatment, the patient was anesthetized, intubated, and started on fluid resuscitation according to the Parkland formula. The patient remained hemodynamically and rhythmically stable throughout the procedure. Necrectomy and surgical dressing with Dermazin were performed, followed by sterile dressing. He met the criteria for referral to a burn center in Zagreb, which included second and third-degree burns with functional and esthetic damage to the hands. Before the transfer, decompression of n. medianus was performed in both carpal tunnels, along with fasciotomy of the forearm and dorsum of the hand.

Conclusion: Early, effective management of severely burned patients is crucial for long-term outcomes. The complexity, multidisciplinary character and expense of the care required by an extensively burned patient have led to the development of specialty care burn centers.

Keywords: Burns; Firefighters; Plastics

CR41

Hepatitis C as an atypical trigger of intrahepatic cholestasis in pregnancy

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Introduction: Intrahepatic cholestasis of pregnancy (ICP) is one of the liver disorders unique to pregnancy and is characterized by pruritus, elevation in serum bile acid concentrations, and increased rates of adverse pregnancy outcomes. In addition to liver diseases that are exclusively related to pregnancy, pregnant women can also have other acute and chronic liver diseases whose course can change significantly during pregnancy and symptoms overlap.

Case report: A 39-year-old patient diagnosed with ICP during pregnancy presented with persistent symptoms of fatigue, pruritus, skin peeling accompanied by depigmentation on her elbows persisting a few months after pregnancy. Laboratory workup revealed microcytic sideropenic anemia (hemoglobin 90 g/L, mean corpuscular volume 66.5 fL) and persistently elevated liver enzymes (aspartate aminotransferase 57 U/L, alanine transaminase 49 U/L). Abdominal ultrasound and Fibroscan findings (4.9 kPa, controlled attenuation parameter 210 dB/m) showed no elements of advanced liver disease. The persistence of symptoms indicated the need to expand the evaluation to rule out other chronic liver diseases. Evaluation was negative for autoimmune and metabolic diseases, as well as intake of xenobiotics. Serology confirmed hepatitis C virus (HCV) infection with positive HCV antigen and anti-HCV antibodies. The patient was treated with direct-acting antiviral glecaprevir/pibrentasvir orally at a dose of 3 tablets of 100/40 mg, for 8 weeks. Polymerase chain reaction at the end of treatment and 12 weeks after was negative which indicates sustained virologic response, considered equivalent to a cure.

Conclusion: The cholestatic impact of elevated concentrations of reproductive hormones is likely to unmask symptoms in women with previously asymptomatic underlying liver diseases like hepatitis C so it is important to keep in mind that sometimes there is an underlying cause of ICP.

Keywords: Hepatitis C; Intrahepatic Cholestasis of Pregnancy; Pruritus

CR42

Latissimus Dorsi Muscle Free Flap in Reconstruction of Complex Defect of the Scalp

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Introduction: Cutaneous squamous cell carcinoma (cSCC) is the second most prevalent malignancy in scalp region showing a rise in incidence. Frequent late-stage diagnosis puts scalp cSCC at a higher risk for invasion, recurrence, and an unfavorable prognosis requiring radical surgery and reconstruction of complex scalp defect using microvascular tissue transfer. Our case presents a comprehensive surgical intervention of an advanced sSCC of the scalp, including wide tumor resection and reconstruction using the latissimus dorsi muscle free flap (LDMF).

Case report: A 57-year-old female patient presented with advanced T3N1M0 cSCC of the scalp. Multislice computed tomography (MSCT) scans revealed a large cutaneous tumor of the temporoparietal region, with infiltration of the cephalic portion of the pinna, preauricular skin and underlying temporalis muscle. There were no radiological signs of bone erosion of the skull. Ultrasound guided fine-needle aspiration (FNA) detected a single metastatic lymph node without radiological adverse features. A wide surgical resection of the tumor with subtotal resection of the left pinna, superficial parotidectomy and ipsilateral selective neck dissection (levels II, III and Va) were performed. Therefore, the defect was reconstructed subsequently by using a LDMF that was additionally covered with split-thickness skin graft raised from the patient's right thigh. The healing was uneventful, and the patient was discharged from hospital 10 days after surgery. She underwent adjuvant radiotherapy and has remained disease-free 5 years after the procedure.

Conclusion: The LDMF emerges as an optimal solution for complex scalp soft tissue defects due to its size and versatility, allowing pure muscle or myocutaneous transfer. When bone is not involved, as presented in our case, muscle-only flap is prioritized followed by skin grafting, showing superior aesthetic and functional outcomes in scalp reconstruction.

Keywords: Carcinoma, Squamous Cell; Microsurgery; Radiotherapy, Adjuvant; Scalp; Surgery, Plastic

CR43

Diagnostic Dilemma: Leptospirosis Presenting as Immune Thrombocytopenia

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Introduction: Leptospirosis is a zoonosis caused by spirochetes belonging to the *Leptospira* genus. While the common symptoms of the disease are well documented, diagnosing leptospirosis can be challenging, especially when its symptoms overlap with those of other illnesses.

Case report: A 55-year-old female patient with a non-distinct medical history presented to the emergency room with generalized weakness, bilateral calf pain, purpuric rash, and abdominal wall sensitivity to palpation in all quadrants. There were no significant radiological findings. Laboratory findings revealed a decreased platelet count ($<5 \times 10^9/L$), anemia, elevated inflammatory markers, and mild hepatic enzyme derangement. Additional testing indicated the presence of free antithrombocyte antibodies, notably IgG anti-HPA antibodies targeting the HPA antigen group on glycoprotein GP IIb/IIIa, prompting the diagnosis of immune thrombocytopenia (ITP). The patient was initiated on methylprednisolone, intravenous immunoglobulins and empirical ceftriaxone; however, her clinical status deteriorated, with elevated bilirubin levels (maximum total 613 $\mu\text{mol/L}$) and acute renal failure necessitating renal replacement therapy. On the third day, due to respiratory failure and hemoptysis, she was transferred to the intensive care unit. Subsequently, a positive polymerase chain reaction (PCR) test confirmed leptospirosis. The treatment was originally started to address immune thrombocytopenia and an unspecified infection, but was also effective against leptospirosis. The patient's condition improved, and she was discharged with normalized kidney function, reduced bilirubin levels, and recovered platelet counts. She continues to do well 5 months later.

Conclusion: In light of this case, we can draw attention to the importance of considering leptospirosis as a potential diagnosis in critically ill patients experiencing multiorgan failure of unclear cause. While Weil's disease is well recognized by infectious disease specialists, it may not be the foremost consideration for internists or intensivists.

Keywords: Leptospirosis; Multiple Organ Failure; Purpura, Thrombocytopenic, Idiopathic

CR44

Laparoscopic cystectomy in a 15-year-old patient with Prader-Willi syndrome

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Introduction: Prader-Willi syndrome (PWS) is a genetic disorder characterized by hypogonadism, behavioral problems, intellectual difficulties and polyphagia which leads to the progressive development of morbid obesity.

Case report: A 15-year-old pediatric patient with PWS was admitted to the Clinic for Gynecology and Obstetrics for further evaluation due to abdominal pain and obstipation. Computer tomography (CT) of the abdomen and pelvis revealed a cystic mass (196x138x168 mm) over the left ovary. The patient was later admitted and antibiotic treatment was administered. Removal of the cystic mass was indicated. It is noted that obesity was a possible contraindication for surgery, making it to be of high risk. Chiefs of surgery, gynecology and obstetrics and pediatrics decided that the operation should be performed by an abdominal surgeon. Laparoscopic cystectomy was performed and although torsion of the ovary was discovered intraoperatively, the operative course proceeded without complications. Laboratory tests were performed on two occasions and a local drain was removed on the second postoperative day. The patient was discharged in good general condition for home treatment with a recommendation for a sparing and dietary regimen.

Conclusion: To summarize, comorbidities can make it challenging to treat these patients, as the main problem in this patient was obesity. PWS is a condition that requires a multidisciplinary approach and it is important to look at the case from every aspect to be able to provide the best care with the best possible outcome.

Keywords: Cystectomy; Obesity; Prader-Willi Syndrome

CR45

Challenges in Diagnosis and Management of Nasal Non-Hodgkin Lymphoma: A Case Report of Successful Chemotherapeutic Intervention

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Introduction: Non-Hodgkin lymphoma (NHL) of the nasal cavity is a rare neoplasm, constituting only 0.17-2% of all NHL cases and 5.8% of malignant neoplasms in the sinonasal region. Currently, they are recognized as comprising two distinct subgroups distinguished by phenotype, location, prognosis, and treatment. B-Cell phenotype lymphomas are the predominant type in the paranasal sinuses, exhibiting lower aggressiveness and a relatively favourable prognosis. Conversely, T/NK-Cell lymphomas are predominantly located in the nasal cavity, demonstrating higher aggressiveness and a relatively poorer prognosis.

Case report: Our patient, a 78-year-old, presented with bilateral nasal obstruction, dyspnea, dysphonia, and anosmia. Computed tomography (CT) revealed a 4 cm x 3.2 cm x 4.5 cm polypoid mass obstructing the epipharynx and oropharynx, with no metastasis. Nasal endoscopy and biopsy confirmed high-grade NHL, diffuse large B-cell phenotype. Following 3 cycles of rituximab chemotherapy, the patient developed dyspnea, fatigue, and bilateral lower extremity edema. A control CT showed a right posterobasal pulmonary embolism complicating treatment but revealed tumor regression. A subsequent Holter monitor identified atrial fibrillation, leading to a permanent anticoagulant therapy and diuretics. Despite these complications, the patient responded well to 6 cycles of chemotherapy, exhibiting no fever, dyspnea, or angina, with an unremarkable physical examination.

Conclusion: Nasal NHL, a rare and diagnostically challenging entity, necessitates a high clinical suspicion for timely intervention. Although aggressive, localized cases respond favourably to combination chemotherapy.

Keywords: Lymphoma; Nasal obstruction; Tomography

CR46

Rib and fat grafts in facial plastic surgery: A promising solution for asymmetry

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Introduction: Autologous fat transfer is a surgical procedure in which a patient's own fat is harvested from one part of the body and then transferred to another area in order to enhance volume, shape or contour. Reconstructive procedures aim to return normal facial appearance and improve functionality. Our patient has decided to undergo reconstructive surgery due to Klippel-Feil syndrome.

Case report: A 28-year-old patient with Klippel-Feil syndrome presented with hemifacial microsomia and microtia of the right ear. Along with anomalies of the facial bones and hypoplasia of the mandibular ramus, the patient has kyphoscoliosis. The anomalies have been present since birth, but the patient has decided to undergo reconstructive surgeries at the age of 28. The first act was in February of 2020 when auricular reconstruction for microtia with modified Nagata method was done. The right earlobe was reconstructed using synchondrosis of VI, VII and VIII ribs. The second act of the reconstruction was done in June of 2021 using Nagata method. Furthermore, fat tissue from the thorax was used for lipofilling the right part of the face to correct the hemifacial microsomia. Both operations were successful and the patient was released in excellent shape.

Conclusion: This case highlights the positive outcomes achievable through reconstructive interventions in individuals with complex craniofacial conditions. The regenerative potential of stem cells found in adipose tissue opens new doors for application in regenerative medicine. In the future, this type of procedure will play a significant role in meeting different aesthetic and reconstructive needs providing long-lasting results.

Keywords: Congenital Microtia; Klippel-Feil Syndrome; Regenerative Medicine; Surgery, Plastic

CR47

The involvement of plastic surgery in managing Gram-negative sepsis

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Introduction: This article examines a medical case involving a 60-year-old female patient after adenocarcinoma surgery, highlighting the challenges and interventions during her recovery. The aim is to provide insights into the effectiveness of multidisciplinary medical approaches in managing post-operative complications.

Case report: This medical case involves a 60-year-old female patient with rectal adenocarcinoma who underwent colon resection surgery. The patient's medical history included ocular myasthenia gravis, hypothyroidism, osteoporosis and hysterectomy. She was under chronic therapy with prednisone, levothyroxine and pyridostigmine. On the second postoperative day she underwent urgent relaparotomy due to anastomosis dehiscence, subsequently developing Gram-negative sepsis and pulmonary consolidation. The predominant feature in the clinical presentation was extensive skin necrosis involving the right thoracic region, right abdominal area and the upper right leg. Debridement and necrectomy procedures were carried out, employing Vacuum-Assisted Closure (VAC) for optimal wound management. Dry gangrene affected the first four toes bilaterally leading to amputation, while signs of recovery were observed in the ischemic changes on the fingers. Reconstructive skin surgery was undertaken, employing four grafts to address the extensive skin necrosis. Despite the complications, the patient was ultimately discharged from the hospital in good condition.

Conclusion: This case highlights the need for meticulous postoperative care, especially in patients with comorbidities. It emphasizes the importance of adaptability and multidisciplinary approaches in managing complex medical situations, offering insights for future cases.

Keywords: Adenocarcinoma; Debridement; Graft; Sepsis

CR48

A case of self-inflicted traumatic cataract in a girl affected by Marden-Walker syndrome

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Introduction: Marden-Walker syndrome is a rare autosomal recessive disorder characterized by psychomotor retardation, postnatal growth delay, decreased muscular mass, mask-like face, blepharophimosis, micrognathia, high-arched or cleft palate, low-set ears, kyphoscoliosis and congenital joint contractures. As a consequence of limited intellectual capacities patients frequently manifest with behaviors such as repetitive head-banging and striking of the face and the eyes resulting in self-inflicted injuries such as traumatic cataracts or retinal detachments.

Case report: A 20-year-old female affected by a rare developmental defect called Marden-Walker syndrome was presented to the University Hospital Centre Zagreb with a developed dense traumatic cataract on her right eye. She has been sent to our tertiary facility after being examined in a smaller hospital due to a white opacity on her right pupil visible by naked eye. As self-inflicted injuries in patients with intellectual disabilities are a well-known cause of visual disturbances, the etiology was soon concluded and confirmed. Thorough clinical examination such as visual acuity measurements and biomicroscopic evaluation could not be completed due to uncooperability but a basic direct ophthalmoscopy showed no red reflex. Appropriate ocular surgical intervention has been performed in total anesthesia. Synechiolysis, lens aspiration with posterior capsulorhexis, anterior vitrectomy and posterior chamber intraocular lens implantation has been performed with no postoperative complication.

Conclusion: It is crucial to highlight the importance of frequent routine ophthalmologic surveillance in patients with intellectual disabilities and language impairment to detect early onset eye diseases and traumas and prevent their complications.

Keywords: Cataract; Syndrome; Self-Injurious Behavior

CR49

Presentation and treatment of olfactory esthesioneuroblastoma: A case report

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Introduction: Esthesioneuroblastoma, frequently referred to as olfactory neuroblastoma, is a rare malignant tumor of the sinonasal tract that arises from the olfactory neuroepithelium and exhibits neuroblastic differentiation. An olfactory esthesioneuroblastoma has an extremely low incidence. It is rarely present in the adult population. Due to the asymptomatic aspect of the disease, neuroblastoma is usually detected in its advanced stage. In this case report, we present a treatment for this malignancy.

Case report: A 61-year-old female patient was admitted to Zagreb university hospital Sestre Milosrdnice in October 2021. She complained of anosmia and a headache. Computer tomography scan of the paranasal sinuses showed a tumor (60 x 21 x 32 mm) positioned on the posterior part of the left nasal cavity and its extension into the posterior ethmoid cells bilaterally. The tumor affects the septum and ethmoid septa, extending into the area of the anterior cranial fossa with signs of destruction of the lamina cribrosa. In October of 2021 the patient was treated endoscopically. Histological examination reveals fragments of the respiratory mucosa permeated by a tumor made up of lobular distributed clusters, separated by vascularized connective stroma. Immunohistochemically, the tumor is CD56, chromogranin, and synaptophysin positive which correspond to olfactory neuroblastoma. The patient underwent 3D-conformal radiotherapy to the area of the tumor spread with doses of 54 Gy in 27 fractions. The patient's recovery was uneventful and she had no complaints on the 10-month follow-up.

Conclusion: With this case representation we want to point out that the efficiency of the treatment of esthesioneuroblastoma is contingent on three factors: accurate diagnosis, surgical approach, and appropriate radiotherapy.

Keywords: Esthesioneuroblastoma, Olfactory; Paranasal Sinuses; Radiofrequency Therapy

CR50

Optimizing Reconstruction: Hughes Procedure Following Lower Eyelid Basal Cell Carcinoma Resection

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Introduction: Basal cell carcinoma (BCC) is the most prevalent malignant tumor affecting the upper facial region, accounting for 90% of all malignant neoplasms found in the eyelids. The surgical resection of BCC often leads to substantial eyelid defects, requiring effective reconstructive strategies. Our aim was to showcase successful functional and cosmetic outcomes achieved through the application of the Hughes tarsoconjunctival flap for the treatment of full-thickness lower eyelid defects.

Case report: 60-year-old female patient with suspected BCC of the lower eyelid was scheduled for surgery. Following the primary tumor resection, a consequential full-thickness defect of the eyelid remained. Given the extent of the defect, the chosen approach for reconstruction was the Hughes procedure which enables substitution of both eyelid lamellas. The posterior lamella was reconstructed by harvesting and suturing a tarsoconjunctival flap from the upper eyelid to the lower lid retractors and conjunctiva. A cutaneous split thickness free transplant from the upper eyelid was used for anterior lamella reconstruction. After less than two weeks of healing, the second stage involved dividing the tarsoconjunctival flap, revealing a newly formed eyelid margin.

Conclusion: The positive functional and aesthetic results observed in this case further emphasize the relevance of the Hughes procedure as a valuable reconstructive option for large full-thickness lower eyelid defects. A novelty of this case is the division of the flap after ten days, contrary to the customary four-week protocol, resulting in a significantly shortened recovery period and a substantial socioeconomic impact.

Keywords: Basal Cell Carcinoma; Eyelid Neoplasms; Ophthalmologic Surgical Procedures

CR51

Diagnosis of *Streptobacillus moniliformis* - Induced Rat Bite Fever in the Emergency Room Settings: A Case Report

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Introduction: *Streptobacillus moniliformis*, a gram-negative bacterium associated with rat-bite fever, poses a 10% mortality risk when untreated. The challenge lies in its nonspecific early symptoms and difficulty in culturing the causative organism, leading to potential delays or diagnostic failures.

Case report: An 85-year-old, previously healthy male presented with a complaint of fever and epigastric pain, followed by vomiting and lethargy-general infectious symptoms. Initial physical examination revealed no abnormalities except for fever and malaise. Blood analysis revealed elevated levels of inflammatory markers, including C-reactive protein and procalcitonin, as well as leukocytosis with neutrophilia, suggesting a possible bacterial infection. Blood cultures were obtained, and parenteral rehydration, along with gastroprotective agents and empiric antibiotic therapy, were initiated. Due to the improvement in the patient's symptoms and his expressed desire for discharge, further empiric peroral antimicrobial agents were recommended. Subsequent analysis using Bruker Matrix-Assisted-Laser Desorption/Ionization (MALDI) Biotyper machine identified the presence of *Streptobacillus moniliformis* in blood cultures. Despite attempts to establish contact with the patient, communication was unsuccessful. The patient also failed to attend the scheduled follow-up appointment. It has been ascertained that the patient has since recovered without sequelae, as confirmed during an examination for another medical condition about a year later.

Conclusion: MALDI Time-of-Flight-Mass-Spectrometry excels in accurately identifying bacteria, such as *Streptobacillus moniliformis*. Rapid results, species-level precision and minimal sample requirements make it ideal for diagnosis of challenging microorganisms, difficult to grow on traditional substrates. This technology significantly streamlines diagnostic processes, crucial for timely clinical interventions.

Keywords: Bacillus, Gram-Negative Bacterial Infections; Rat-Bite Fever

CR52

Fibromuscular dysplasia – a case report

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Introduction: Patients with fibromuscular dysplasia (FMD) have impaired cellular growth in the walls of the middle and large arteries. Hence, such arteries look granular, can narrow or expand and rupture. This is usually followed by pain and the appearance of ischaemic symptomatology. FMD is the most common in women between the ages of 40 and 60.

Case report: A 54-years old female got over cerebrovascular insult (CVI) in 2022. She has been suffering from hypertension since she was 14. She currently has a mild right-sided hemiparesis which left over from CVI and newly developed ophthalmic symptom - flashing in the eye. Lipid profile indicated elevated cholesterol and low-density lipoprotein values. She was referred to an ophthalmologist who expressed suspicion on ischaemic optic neuropathy due to poor vision on visual discrimination tests. Immunologist and transfusiologist have determined that there were no elements of vasculitis or thrombophilia. Neurological diagnostics included imaging. Computed tomography angiography (CTA) of the aortal branches showed intracranial missing of the pre-communicating segment of the anterior cerebral artery. Extracranial doppler of carotids and vertebral arteries has shown that both internal carotid arteries have uneven walls called „string of beads“ which is pathognomonic for FMD. The vertebral arteries had asymmetric hemodynamics. Aortic CTA indicated mild aortic atherosclerosis due to long-standing hypertension. Aspirin, bisoprolol, perindopril, lansoprazole and rosuvastatin were included in the therapy.

Conclusion: FMD can result in dissection if it's not recognized and treated on time. This case is one of only seven diagnosed in Croatia up to this day.

Keywords: Computed Tomography Angiography; Fibromuscular Dysplasia; Hypertension

CR53

An uncommon case of deep vein thrombosis in vena subclavia

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Introduction: Deep vein thrombosis (DVT) is an obstructive disease with a hindering venous reflux mechanism. It mostly affects the veins of the lower extremities, but in 5% to 10% of all cases, upper extremity DVT has been reported. The most widely recognized etiology for thrombosis is atherosclerosis.

Case report: In this case report, we present the case of a 43-year-old man who was admitted to the emergency room due to edema of the left hand with tingling. In the personal and family history there were no risk factors. During diagnostic evaluation, laboratory results revealed elevated D-dimers and thrombocytopenia. Color Doppler imaging of the left arm veins was performed, which showed a non-compressible, hypoechoic thrombotic clot in the subclavian vein. Furthermore, therapy with low-molecular-weight heparin was started, but without a satisfactory clinical result. Therefore, mechanical thrombectomy was performed but remained unsuccessful. After consultation with a vascular surgeon, it was decided to continue anticoagulation therapy. A week later, the mechanical thrombectomy was tried to be performed again, but a developed network of collaterals and an orderly vein supply were observed. Considering the unknown etiology of DVT, a genetic analysis of thrombophilia was recommended.

Conclusion: DVT of the subclavian vein is a rare form of thrombosis. Considering the age of the patient and lack of risk factors, the etiology of this patient could be explained by anatomical variation and/or hereditary form of thrombophilia.

Keywords: Thrombectomy; Thrombophilia; Thrombosis

CR54

Secondary Hemophagocytic lymphohistiocytosis (HLH) known as Macrophage-activation syndrome (MAS) - complication of unrecognized Systemic lupus erythematosus (SLE)

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Introduction: HLH is uncommon, yet fatal complication of SLE. HLH was classified in 2004, and diagnosis is established when 5 of 8 criteria are fulfilled. Criteria include fever, splenomegaly, cytopenia (minimal two lineages), hypofibrinogenemia, increased lactic-dehydrogenase (LDH) and other criteria. In this paper we will present a case that became clearer when complications occurred.

Case report: Female patient (43) was admitted to the emergency department for vague febrility and joint pain. A month before admission, she was prescribed corticosteroids for wrist-joint swelling and shoulder pain. Corticosteroids helped with swelling, but now she felt pain in same joints and back pain occurred, that woke her up at night. Every other night she had fever of 37,2°C. Enlarged cervical and axillar lymph nodes were found. Increased inflammatory parameters were present with lymphopenia and mild liver lesion. Lymph node biopsy showed absence of pathological substrate. Factors associated with complicated hospitalization included severe pancytopenia, with marked increase in ferritin, triglyceride, LDH and splenomegaly, which was suspicious of MAS. Pulses of corticosteroids were administered with intravenous immunoglobulins, which showed clinical improvement. Later, positive anti-nuclear antibodies were proven, and when paired with other findings, pointed to SLE. Accordingly, cyclophosphamide and anti-malarials were administered following Euro lupus protocol. Cefepim and acyclovir were also administered regardless of sterile hemocultures.

Conclusion: This case shows, how autoimmune diseases can be unclear and unrecognized. Complications sometimes unravel the foundation of diseases, so one should be knowledgeable enough to recognize what complications have to offer.

Keywords: Lymphohistiocytosis; Hemophagocytic; Macrophage-Activation Syndrome; Systemic Lupus Erythematosus

CR55

The role of topical cyclosporine in treatment of severe dry eye disease – a case report

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Introduction: Dry eye disease (DED) is a multifactorial disease of the ocular surface characterized by tear film instability, hyperosmolarity, inflammation, and neurosensory abnormalities causing symptomatic discomfort. Topical cyclosporine, acting as a calcineurin inhibitor, holds promise in alleviating severe DED by controlling the underlying inflammatory processes.

Case report: A 55-year-old woman diagnosed with Sjögren's syndrome five years ago presented with worsening dry eye symptoms over three years, including blurred vision, foreign body sensation in both eyes, photophobia, and conjunctival redness, despite diligent use of artificial tears and corneal lubrication gel. On examination, best-corrected visual acuities were 0.9 right eye (OD) and 0.8 left eye (OS), with positive fluorescein staining and hyperemia on slit lamp examination. Schirmer scores were 4mm in both eyes, and fluorescein tear breakup time (TBUT) measured 4.0s OD and 5.0s OS. Therapy was initiated with cyclosporine A 1mg/ml eye drops once daily and preservative-free lubricants five times daily. At the six-month follow-up, visual acuity improved to 1.0/1.0, with reduced fluorescein staining, and improved TBUT (9.0s in both eyes). Schirmer scores improved to 6mm in both eyes. The patient reported no subjective complaints. Currently, the patient is gradually discontinuing cyclosporine while maintaining artificial tear supplementation.

Conclusion: Cyclosporine effectively improves symptoms and reduces corneal staining in moderate to severe dry eyes. With optimal compliance, it serves as a long-term treatment, helping avoid eye surgeries and breaking the cycle of inflammation to restore normal corneal and conjunctival surfaces.

Keywords: Cyclosporine; Dry Eye Disease; Sjogren's Syndrome

CR56

Did not see that coming...rare case of hemangioma

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Introduction: Hemangiomas are benign tumors of blood vessels in the skin, soft tissues, and mucosa. The most common form is the capillary hemangioma. Capillaries in hemangiomas often form tightly packed connective tissue mostly found in the superficial layers of the skin.

Case report: We are presenting a case of a 62-year-old male with a tumor on the right side of his face from birth. Patient underwent a standard examination from a maxillofacial surgeon and a biopsy which showed that the tumor is a capillary hemangioma. Due to the patient's declining treatment, the capillary hemangioma was not treated until the patient came to us because of a work-related injury that caused bleeding. Because of the tumor's size and location, covering half of the patient's face and the tumor being both in the deep and superficial layers of the skin, conservative treatment is not being considered, and performing surgery immediately is not a viable choice. We have opted to choose between laser coagulation or CT-angiography and then angio-embolization as suggested by recent literature. Laser coagulation is mostly used for superficial hemangiomas and is not as effective for deeper or orbital hemangiomas. The reconstruction of the face will follow after initial treatment.

Conclusion: Capillary hemangiomas are common infantile tumors. If left untreated, they can proliferate and grow out of proportion while causing symptoms later in life. With this case we hope to produce a solid discussion about patient treatment and outcomes for out of proportion infantile hemangiomas.

Keywords: capillary; face; hemangioma; surgery; cancer

CR57

Signs vs. Symptoms: Budapest Criteria Decoding Complex Regional Pain Syndrome

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Introduction: Complex Regional Pain Syndrome (CRPS), as a multifactorial chronic pain disorder, manifests with disproportionate pain, edema, and temperature changes, often induced by trauma. Its etiology involves peripheral and central nervous system dysregulation.

Case report: A 71-year-old female presented with pain, swelling, and stiffness of the left hand, wrist, and elbow post-plaster cast removal. She wore the cast for a month due to left radial bone „loco typico" fracture from a ground fall. The Visual Analog Scale for pain demonstrated a score of 8/10 although she used ibuprofen (600 mg) for pain reduction. The skin of the left hand appeared taut, shiny, hyperemic, hyperthermic, and sweaty. Fingers and dorsum exhibited edema and hyperalgesia. The middle finger-to-palm distance was 45mm, and the thumb-to-5th finger distance was 20mm. Physical examination revealed left radiocarpal joint contracture and flexion contracture of the elbow. After suspecting CRPS upon examination, Budapest Criteria (BC) were used to confirm diagnosis and rate severity. BC distinguishes signs observable during examination and patient-reported symptoms. After excluding alternative etiologies, a patient is diagnosed if at least one sign in two categories is exhibited and at least one symptom in three categories is reported: Sensory (hyperaesthesia/allodynia), Vasomotor (skin color/temperature), Sudomotor (swelling/sweating), and Motor (motion range). When diagnosed with all four categories positive, she was prescribed glucocorticoids and physical therapy.

Conclusion: Pain management relies on timely diagnosis and accurate assessment of CRPS severity. Although challenges arise when signs and symptoms do not appear concurrently, this case highlights BC as the golden standard for diagnosing and grading CRPS.

Keywords: Chronic Pain; Complex Regional Pain Syndrome; Hyperalgesia; Hyperemia; Visual Analog Scale

CR58

Insight into Central Retinal Artery Occlusion: A COVID-19 Perspective

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Introduction: Central retinal artery occlusion (CRAO) results in sudden, painless, and profound vision loss. CRAO occurs due to an abrupt interruption of blood flow, typically caused by an embolus. With the emergence of COVID-19 as a procoagulant disease, there is a growing concern about increased thromboembolic events, including those affecting the eye.

Case report: A 69-year-old male presents with sudden, painless vision loss in the right eye. His medical history includes hypertension and atrial fibrillation, both under treatment. One month prior, the patient had recovered from a COVID-19 infection that manifested with mild symptoms. On the initial examination, his visual acuity was 0.02 in the right eye and 0.9 in the left eye. Biomicroscopic examination findings were normal. Funduscopic examination revealed a pale optic disc, reduced arterial caliber, macular edema, and an intra-arterial white embolus located in the inferior temporal branch of the retinal artery. CRAO was diagnosed, and treatment with dexamethasone and dorzolamide eye drops was administered. The patient underwent cardiac evaluation, including Doppler ultrasonography and an electrocardiogram, which ruled out cardiac etiology. All laboratory tests were within normal range. Significant improvement has been observed two months after the treatment. Visual acuity in the right eye was measured at 0.8, and funduscopic examination revealed a normal fundus appearance with no visible retinal embolus and a reduction in macular edema.

Conclusion: Prevention of irreversible visual loss primarily relies on early suspicion and prompt intervention. This case underscores the significance of a multidisciplinary approach and heightened awareness of ocular thromboembolic complications in patients with COVID-19.

Keywords: COVID-19; Retinal Artery Occlusion; Thromboembolism

CR59

Pulmonary metastasis in a patient with undiagnosed low-grade endometrial stromal sarcoma

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Introduction: Endometrial stromal sarcoma (ESS) is a rare malignant tumor typically found in individuals aged 40-50. Diagnosis in the early stages can be challenging, and it may be mistaken for a fibroid. A significant portion, 30-50% of cases, presents with extrauterine spread at the time of diagnosis. Even after the primary tumor is resected, distant metastases may occur, with the lungs being the most common site.

Case report: We present the case of a 61-year-old female diagnosed with metastatic low-grade ESS who initially presented with a pulmonary lesion. The patient had previously undergone a hysterectomy for myoma uteri a decade ago. During this year's anesthesia procedure for colonoscopy, a chest roentgenogram revealed a nodular lesion in the lower lobe of the right lung. Subsequently, a complete resection was performed using video-assisted thoracoscopic surgery (VATS). Pathology findings raised suspicion of a mesenchymal lesion, strongly indicative of a mesenchymal neoplasm with genital origin, possibly originating from low-grade endometrial stromal tissue. However, due to the limited availability of tumor tissue, a definitive diagnosis could not be confidently established, leading to the decision to conduct fusion testing. Targeted RNA sequencing results confirmed a fusion characteristic of low-grade ESS. Given these findings, it is established a pulmonary metastasis of ESS. Due to confirmed malignancy, the patient remains in oncological evaluation.

Conclusion: Clinical symptoms lack specificity, making low-grade ESS with pulmonary metastasis diagnosis challenging. Therefore, combining clinical history, imaging results and histological findings is necessary.

Keywords: Sarcoma, Endometrial Stromal; Neoplasms; Thoracic Surgery

CR60

Cross leg flap for reconstruction of lower extremity burns- a case report

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Introduction: Cross-leg flaps are an optional choice for the reconstruction of complex lower limb defects when free flaps cannot be performed due to vascular damage.

Case report: A Caucasian man in his seventies was brought to the emergency department due to third-degree burns on the abdomen and both lower extremities. A total of 35% of the body surface was covered in burns. The patient states that he went to check the fire in the afternoon and slipped. Excisional debridement and Vacuum Assisted Closure were performed. The patient refused amputation of the left leg and a free skin graft of partial thickness (Thiersch) and a free flap of musculus latissimus dorsi was performed. Two surgical wound revisions were performed to save the free flap. Due to the extensive injury and long-term smoking, which affected the microcirculation, it failed. A cross-leg flap and immobilization were performed as a final option, which was successful. The wound smear was positive for *Pseudomonas aeruginosa* and *Escherichia coli*, which were treated according to the antibiogram. Although the operation succeeded, the patient suffered bilateral knee and talocrural joint contractures due to extensive burns. Also, he has paraparesis and sarcopenia. As a result of these consequences, the patient is poorly mobile on his own, so anti-decubitus measures, thromboprophylaxis, and physical therapy are necessary.

Conclusion: The cross-leg flap provides an opportunity to save limbs that would otherwise be challenging to reconstruct. With ample dimensions, it effectively covers a range of lower extremities defects, particularly when bones, tendons, and neurovascular bundles are exposed.

Keywords: Burns; Debridement; Free Tissue Flaps

CR61

Cutaneous manifestation of Crohn's disease

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Introduction: Crohn's disease is a chronic, relapsing inflammatory disease of the gastrointestinal tract. The most common symptoms include abdominal pain, diarrhea, blood in stool, fever, fatigue, and weight loss. Inflammation of the skin, eyes and joints, kidney stones and anemia can also be present.

Case report: A forty-year-old man sought care in his family practice after developing armpit hidradenitis suppurativa, acne, and scarring alopecia. For two years he was treated with oral and topical antibiotics, steroids, and isotretinoin without improvement. In 1/2023, he underwent a hemorrhoid operation in a private clinic. Ten days later, he was hospitalized due to febrility with blood and mucus in his stool. Multislice computed tomography (MSCT) of the pelvis and abdomen was indicative of proctitis, suspected to be a post-operative complication, and was prescribed antibiotics. After being sub-febrile, having continuous bloody stools with mucus, losing fourteen kilograms, and enduring abdominal pain, he underwent an emergency colonoscopy. A change in the mucous membrane was found at the transition from the small to the large intestine. After excluding malignancy, the patient was diagnosed with Crohn's disease, terminal ileitis with infiltration of valvulae Bauhini. In 4/2023 he underwent an operation, ileoterminal resection. MR enterography showed no pathology. In 7/2023, the patient started biological therapy with adalimumab. He started gaining weight and all his skin conditions slowly disappeared.

Conclusion: Although it is not common to have isolated skin conditions as an early sign of Crohn's disease, suspicion must be raised if a patient starts to develop gastroenterological symptoms.

Keywords: Hemorrhoids; Hidradenitis Suppurativa; Inflammatory Bowel Diseases

CR62

Microdeletion syndrome 16p11.2: clinical and molecular characterization

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Introduction: Pericentromeric region on 16p appears to be susceptible to chromosomal rearrangements and several patients with the aforementioned have been described. We report on a patient with a microdeletion 16p11.2 in the context of described patients with a deletion in the pericentromeric region of 16p. Minor facial anomalies, feeding difficulties, associated with a variable clinical spectrum of neurocognitive phenotypes and motor impairments, as well as impaired communication and social skills, obesity and epilepsy.

Case report: A 15-month-old patient born from the first pregnancy of non-consanguineous healthy parents is presented. Intrauterine growth retardation is monitored during pregnancy. In the infant period, the patient presented with the following: microcephaly, hypotonia, motor deficit, horizontal nystagmus, along with phenotypic dysmorphism, hypertelorism, saddle-shaped nasal root, Gothic palate, microretrognathia and irregularly shaped auricles. Magnetic resonance imaging showed bilateral polymicrogyria of the parietal and temporal lobes, belt heterotopia, hypoplastic corpus callosum and pial angiomas. At the age of 4 months, he developed epileptic seizures. Chromosome microarray analysis was performed and showed a deletion in the 16p11.2 region affecting a total of 26 protein-coding genes, of which the KIF22, PRRT2, TLCD3B, ALDOA and TBX6 genes are considered as pathogenic.

Conclusion: A deletion was detected in the 16p11.2 region affecting a total of 26 protein-coding genes, of which the genes KIF 22, PRRT2, TLCD3B, ALDOA and TBX6 are considered pathogenic. 16p11.2 deletion syndrome is inherited in an autosomal dominant manner. The syndrome is associated with intellectual disabilities, developmental delay, seizures and obesity. The KCTD13 gene is said to be responsible for neurodevelopmental disorders, while the PRRT2 gene is overexpressed in the brain during embryonic development, and variations in this gene are associated with a variety of neurological disorders.

Keywords: chromosome deletion; fetal growth retardation; genes

CR63

Giant cell arteritis with lower limb ischemia and polymyalgia rheumatica successfully treated with tocilizumab

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Introduction: Giant cell arteritis (GCA) and polymyalgia rheumatica are related conditions affecting the adult population. Isolated lower limb ischemia may be a presenting symptom in a minority of GCA patients. Caution is required not to misdiagnose it as peripheral atherosclerotic disease.

Case report: A 72-year-old female developed progressive claudication of her right leg over six months, leading to a markedly decreased pain-free walking distance of 30 meters. She underwent a computed tomography angiography which revealed multiple arterial stenoses. Upon examination, arterial bruits were detected in the projection of the left carotid, as well as both subclavian and both femoral superficial arteries. She also complained about proximal shoulder and pelvic girdle pain. Given that her erythrocyte sedimentation rate (ESR) was 98 mm/h, she was referred to positron emission tomography/computed tomography (PET-CT). Increased uptake was revealed in both common carotid arteries, the brachiocephalic trunk, both subclavian, brachial, iliac, femoral, popliteal arteries, and diffusely in the aorta. She was started on 1 mg/kg prednisone tapering scheme and weekly methotrexate, achieving a decline in her ESR as well as improvement in her pain-free walking distance up to 600 meters. Given that her ESR was still increased (54 mm/h) two months following the start of prednisone (20 mg at that time point), weekly tocilizumab (162 mg) was introduced, leading to further improvement and normalization of her ESR.

Conclusion: Multiple arterial stenoses especially affecting the upper limbs, in concert with increased acute phase reactants, should prompt further workup to exclude vasculitis.

Keywords: giant cell arteritis; intermittent claudication; tocilizumab

CR64

Hypofractionated Gamma Knife Stereotactic Radiosurgery for Optic Chiasm Metastases with Preservation of Chiasm Integrity

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Introduction: Stereotactic radiosurgery effectively treats brain metastases, yet poses challenges near the optic chiasm. Hypofractionated Gamma Knife radiosurgery (hfGKRS) delivers smaller radiation doses over consecutive days, enabling a 24-hour optic nerve recovery between fractions. This approach minimizes risk while effectively targeting metastases.

Case report: We present two cases of pulmonary carcinoma metastases localized near the optic chiasm. A 44-year-old male with multiple brain metastases underwent surgical removal, postoperative radiation and additional control with hfGKRS. After 9 months post-surgery, 7 new masses emerged, including one near the optic chiasm (volume = 0.023 cm³). Treatment included 4.5 Gy in 5 fractions, isodose line (IDL) = 65% (total dose (TD) = 22.5 Gy) for the chiasmatic metastasis and 25 Gy (IDL = 65-70%) for the remaining six, all under 1 cm. A 66-year-old male underwent two metastases surgical removal, without postoperative radiation. Two hfGKRS sessions addressed regrowth in the following months. Eight months later, one metastasis under 3mm in the left precentral gyrus and another threatening the chiasma on the right, were identified. Treatment was initiated for the 5mm prechiasmatic metastasis: 5 fractions of 6 Gy, IDL=50% (TD = 30 Gy). Both procedures were successful with no complications or vision loss. Presently, their clinical and radiological assessments indicate no further progression. A follow-up scan is scheduled six weeks after the last session.

Conclusion: Limited options exist for optic region metastases without risking eyesight. With multiple radiation fractions, adding up to a higher TD, metastasis growth is efficiently controlled or even reduced. In conclusion, hfGKRS advances oncological care for radiosensitive metastasis, preserving patient vision and quality of life.

Keywords: Brain Neoplasms; Radiosurgery; Stereotaxic Techniques; Supratentorial Neoplasms

CR65

A case report of skin-sparing mastectomy with a severe tissue expander complication after adjuvant radiotherapy

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Introduction: A skin-sparing mastectomy (SSM) is a type of surgical procedure in patients with breast cancer where all of the breast tissue is removed, except for the skin. After an SSM a breast reconstruction can be done using tissue expanders, flaps and implants. This type of mastectomy ultimately provides better aesthetic result. The tissue expander can be placed both under or over the great pectoral muscle.

Case report: This case describes a 45-year-old female patient diagnosed with lobular invasive breast cancer. Patient underwent skin-sparing mastectomy after which a tissue expander was implanted above the pectoralis major muscle. After the sentinel lymph node biopsy (SLNB), the evacuation of the lymph nodes of the axilla was indicated. Six months after the surgical procedure the adjuvant radiotherapy was applied. As a part of regular follow-ups severe tissue expander complications were noticed within two months after radiation of the breast. Skin hyperpigmentation with protrusion of the expander required expander evacuation with prosthesis implantation. One month after, a breast reconstruction using the latissimus dorsi flap was done.

Conclusion: The risk of complications which may occur after adjuvant radiotherapy in patients with implanted breast expanders should not be neglected. The studies have shown a higher complication rate for patients who underwent radiation therapy. Considering the position of the tissue expander, there is possibly a slightly higher chance of its impairment in patients with prepectoral placement due to greater exposure to the radiation.

Keywords: Mastectomy; Pectoralis Muscles; Radiotherapy, Adjuvant

CR66

Patient with Alport syndrome treated with continuous ambulatory peritoneal dialysis develops uremic encephalopathy

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Introduction: Alport syndrome (AS) is an inherited progressive form of glomerulopathy. It is a primary basement membrane disorder caused by pathogenic variants in genes encoding members of the collagen IV protein family. Patients with AS develop chronic renal failure in time.

Case report: We present a case of a 27-year-old man diagnosed with AS since early childhood. First hemodialysis was performed on 9.5.2023. through a central venous catheter (CVC). After consultation with the patient, it was decided that continuous ambulatory peritoneal dialysis (CAPD) is the preferred method of treatment. Because of structural difficulties such as small volumes inside the peritoneal space, proper urea and creatinine clearance are influenced. There were consecutive hospitalizations because of unregulated uremic levels, accompanied by uncontrolled hypertension. On 6.1.2024 he was brought in because of a sudden loss of consciousness and a fall which resulted in a fracture of the left clavicle and scapula. He reconstructed the incident poorly and had overall decreased consciousness (Glasgow coma scale 11). During the examination, he developed a generalized epileptic convulsion. In the initial laboratory, nitrogenous metabolites were increased. He was transferred to the intensive care unit and hemodialysis was performed through a CVC. After a neurologic checkup uremic encephalopathy was diagnosed and levetiracetam was introduced. Because of elevated C-reactive protein levels, antibiotic treatment was started. Anemia was corrected with a transfusion of erythrocytes. Normalization of uremia was achieved through combined periodic hemodialysis and CAPD.

Conclusion: Sufficient volume exchange during CAPD must be achieved to avoid similar exacerbations as shown in this case.

Keywords: uremic encephalopathy; CAPD; hemodialysis; Alport syndrome.

CR67

Cardiac allograft vasculopathy: retransplantation as a viable treatment option

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Introduction: Graft vascular disease is a condition that affects the transplanted heart as a result of an immune reaction to the allogenic graft, presenting with the narrowing and/or obstruction of coronary arteries. It is one of the most common conditions that limit survival after transplantation.

Case report: In December 2015, a 26-year-old patient was hospitalized because of advanced heart failure, caused by previously undetected dilated cardiomyopathy. Due to the severity of his condition, he was listed on the high-urgency waiting list for heart transplantation, which he successfully underwent one month later in January 2016. A year and a half later, he was hospitalized due to endocarditis of the tricuspid valve, requiring implantation of a mechanical tricuspid valve in June 2017 along with a placement of a permanent pacemaker with epicardial electrodes. In 2021, coronary allograft vasculopathy (CAV) was diagnosed by routine surveillance coronary angiography. In the following year, a progression of CAV was verified, and an unsuccessful percutaneous coronary procedure was attempted resulting in perforation of the circumflex branch, which was successfully treated with stent graft implantation. A subcutaneous cardioverter-defibrillator for primary prevention was also implanted later in the same year. In 2023, he was placed on the waiting list for heart retransplantation as the only therapeutic option for his advanced CAV.

Conclusion: The follow-up of a heart transplant recipient is often very demanding. Development of cardiac allograft vasculopathy pathology is especially challenging, and cardiac retransplantation is the established therapy of choice for selected cases of advanced CAV.

Keywords: cardiomyopathies; heart transplantation; vascular diseases

CR68

Nocardia cyriacigeorgica Masquerade: Deciphering a Cerebellar Enigma

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Introduction: Within the realm of medical sciences, *Nocardia cyriacigeorgica* poses a distinctive challenge, increasingly recognized as a pathogenic agent capable of causing diverse and atypical clinical manifestations. Despite the expanding understanding of *Nocardia* species and their clinical implications, this case report aims to underscore the importance of considering rare pathogens in the differential diagnosis of intracranial lesions.

Case report: We present a case involving a patient admitted to General County Hospital due to symptoms of vertigo, headache, vomiting, and an unsteady gait, following a bout of pneumonia two months prior. After extensive diagnostic procedures, an expansive cerebellar mass was identified on Magnetic Resonance Imaging (MRI). The patient was subsequently transferred to the University Hospital Center for further neurosurgical intervention. A postoperative Computed Tomography (CT) scan revealed the onset of obstructive hydrocephalus. Preliminary microbiological analysis of intraoperatively collected swabs demonstrated branched filamentous gram-positive rods with macromorphological features suggesting fast-growing aerobic actinomycetes in aerobic culture, prompting suspicion of *Nocardia* spp. Final identification was confirmed through molecular methods for isolate identification. Following consultation with an infectious disease specialist, antimicrobial therapy was recommended along with anti-edematous measures. Subsequently admitted to the intensive care unit due to respiratory insufficiency, the patient underwent intubation and was connected to a ventilator, remaining deeply comatose. Unfortunately, the patient succumbed to cardiorespiratory arrest shortly after.

Conclusion: This case highlights the diagnostic complexities associated with *Nocardia cyriacigeorgica* in intracranial abscesses, emphasizing the imperative for heightened clinical awareness and a precise differential diagnosis.

Keywords: Cerebellar Neoplasms; Hydrocephalus; *Nocardia* Infections

CR69

Non-suicidal self-injury in preadolescents with anxiety and depression

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Introduction: According to recent studies, the most common disorders associated with self-harm are internalizing disorders, such as depression and anxiety, which constitute the "third common variable" between non-suicidal and suicidal behavior. The aim of this case report is to demonstrate the multifactorial genesis of genetic factors, dysfunction of the serotonergic system, and emotional dysregulation in the emergence of self-mutilation, with an emphasis on multimodal therapy.

Case report: We present the case of a hypersensitively inhibited 10-year-old girl with topically significant levels of intrapsychic suffering. Her parents are divorced, and her father has a positive heredity for substance abuse and a history of suicide attempts. Upon the recommendation of the school doctor (who observed traces of self-harm in a systematic review), she underwent an examination by a child psychiatrist. Normal laboratory findings of thyroid hormones, psychological testing (including clinical interview, CPM, LB-R, BYI-II), and an initial educational-rehabilitation assessment found clinically high levels of depressiveness and anxiety, with disruptions in controlling the urge for autodestructiveness, cognitive trash and inefficiency. One month after the initial assessment, she attempted self-harm for anxiolytic purposes, and the function of the same was affective dysregulation, resulting in a sense of calm. Multimodal integrative therapy, psychotherapy, and pharmacotherapy were employed. Her treatment included the SSRI fluvoxamine and biofeedback treatment as part of the Daily Hospital's therapeutic program.

Conclusion: In conclusion, the application of multimodal therapy and timely implementation of systematic school services have effectively prevented potential suicide in preadolescent girl with an increased tendency for self-harm due to diagnosed depression and anxiety.

Keywords: anxiety; depression; fluvoxamine; self-injurious behavior

CR70

Exploring the Connection Between Bariatric Surgery and Night Blindness – A Case Report on Vitamin A Deficiency

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Introduction: Bariatric surgery makes changes to the digestive system with the intention of weight loss and may result in nutrient malabsorption, including fat-soluble vitamins. Vitamin A deficiency (VAD) can manifest as night blindness (nyctalopia), dry eye (xerophthalmia), and in severe cases even progress to complete blindness.

Case report: A 60-year-old male patient sought care at the Department of Ophthalmology of University Hospital Centre Zagreb following an acute onset nyctalopia 3 weeks prior. Upon examination, he reported dry eye symptoms including irritation and burning as well as a weight loss of 10 kg over the last few months. Eight years ago, he had undergone bariatric surgery in the form of partial gastric and small bowel resection and hadn't been taking oral vitamin supplements regularly since then. Slit-lamp examination revealed Bitot's spots, indicative of VAD. Electroretinogram showed diminished rod function and optical coherence tomography displayed photoreceptor damage. Visual evoked potentials, Octopus, and Goldmann perimetry were inconclusive. Laboratory workup confirmed VAD (41.9 µg/L). Treatment involved artificial tears and an oral vitamin A supplementation regimen. Subjective improvement of night vision and dry eye symptoms was reported shortly after. Follow-up at four months showed normal ocular health and serum vitamin A levels.

Conclusion: This case report emphasizes the importance of considering VAD as a possible cause of dry eye symptoms and night blindness, especially in patients who have undergone bariatric surgery and don't take oral supplementation regularly. Early diagnosis and prompt treatment are crucial to prevent complications such as keratomalacia, corneal perforation, or even total vision loss.

Keywords: Bariatric Surgery; Night Blindness; Vitamin A Deficiency; Xerophthalmia

CR71

Reconstruction of hypopharynx with radial forearm microvascular free-flap

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Introduction: Reconstructing hypopharyngeal defects presents challenges due to the complex anatomy and functional requirements. Radial forearm free-flap (RFFF) offer a reliable solution, providing vascularized tissue for reconstruction.

Case report: A 59-year-old male presented with hypopharyngeal squamous cell carcinoma spreading to the larynx on the left side. He underwent total laryngectomy, partial pharyngectomy, and tracheotomy, followed by reconstruction with RFFF. Postoperatively, he recovered well without complications, regaining satisfactory swallowing and speech function. Regular follow-up showed no recurrence of disease or flap compromise. This case highlights successful management of advanced hypopharyngeal cancer with microvascular flap reconstruction, emphasizing the importance of multi-disciplinary collaboration and meticulous surgical technique in achieving favorable outcomes in complex head and neck oncology cases.

Conclusion: In conclusion, the utilization of RFFF in hypopharyngeal reconstruction represents a valuable surgical approach, offering reliable vascularized tissue for effective defect closure. By addressing the anatomical complexities and functional demands of the hypopharynx, RFFF contributes to improve patient outcomes and enhance postoperative functional recovery. Their versatility and ability to provide adequate tissue coverage make them a preferred choice in cases requiring extensive defect reconstruction. However, continued research and advancements in surgical techniques are warranted to further optimize outcomes and minimize potential complications associated with hypopharyngeal reconstruction using RFFF. Through interdisciplinary collaboration and meticulous surgical planning, reconstruction with RFFF continues to play a crucial role in achieving successful outcomes in patients undergoing hypopharyngeal reconstruction following tumor resection or trauma, ultimately improving their quality of life and functional outcomes.

Keywords: Carcinoma, Squamous Cell; Hypopharynx; Plastic Surgery Procedures

CR72

Intracerebral Hemorrhage in a Kidney Transplant Recipient with Polycystic Kidney Disease

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Introduction: Studies indicate increased stroke risk in patients with polycystic kidney disease (PKD), while kidney transplant recipients have lower stroke risk compared to dialysis patients but remain comparable to the general population.

Case report: A 64-year-old female with polycystic kidney disease (PKD) underwent left nephrectomy in April 2015 for septic complications from cystic lesions, followed by end-stage chronic kidney disease (CKD) and chronic hemodialysis a month later. After six months, she also underwent right nephrectomy. In November 2016, she received a cadaveric kidney transplant. In 2018, she experienced a transient ischemic attack without residual neurological deficits. Her last brain magnetic resonance imaging (MRI), seven months before her death, revealed chronic microangiopathic changes (Fazekas 2). Upon arrival at the emergency department, she was unconscious with dilated pupils and severe hypertension (260/150 mmHg). Immediate interventions included intubation, sedation, and stabilization. Brain imaging showed extensive intracerebral hemorrhage extending into the brainstem and ventricles with perifocal edema. She was admitted to the neurological intensive care unit, where bilateral pneumonia and CKD progression were also noted. She was spontaneously breathing with an endotracheal tube in place. A follow-up computed tomography (CT) scan in the intensive care unit revealed initial regression dynamics of the intracerebral hemorrhage. She passed away four days later.

Conclusion: This case confirms the previously known increased risk of stroke in patients with polycystic kidney disease and emphasizes the importance of controlling additional comorbidities such as hypertension and preserving renal function.

Keywords: Hemorrhagic stroke; Kidney transplantation; Polycystic kidney disease

CR73

Management of pleomorphic liposarcoma of the thigh in a patient with vocal fold paralysis causing anesthesiologic morbidity

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Introduction: Pleomorphic liposarcoma is the least common but most aggressive type of liposarcoma. The aim of this case report was to showcase the difficulty of managing a patient with such an invasive disease with a concurrent relative contraindication for general anesthesia.

Case report: Patient is a 56-year-old female who initially presented with a lipoma of the left anterior thigh measuring 13,5x10,5x19 cm with well demarcated borders and no atypical cells on biopsy. Her history included vocal fold paralysis, hypertension, asthma and sinus tachycardia. Her operation was delayed by 4 months due to anesthesiological contraindications and by then the tumor had grown to 32x19x14 cm, weighed 4 kg upon removal and biopsy showed pleomorphic liposarcoma. Initially, the patient was under spinal anesthesia but due to the size of the tumor and involvement of vascular structures she had to be put under general anesthesia which was done by a specialized anesthesiologist and ENT (Ear Nose Throat) specialist. The wound was closed with an envelope flap combining bigger flaps medially and laterally and smaller flaps cranially and distally. Patient went on to suffer an acute respiratory failure on the second postoperative day which was stabilized with O₂ 6L/min via mask. Two weeks later the patient was released from hospital and instructed to use an orthosis.

Conclusion: Pleomorphic liposarcoma is a very invasive tumor that should be treated promptly. Patient comorbidities can result in a prolonged preoperative period which could potentially mean a worse outcome for the patient.

Keywords: Lipoma; pleomorphic liposarcoma; vocal fold paralysis

CR74

Hypersexuality As A Lead Symptom Of Multiple Sclerosis Relapse: A Case Report

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Introduction: Multiple sclerosis (MS) is an autoimmune disease of the central nervous system characterized by the production of antibodies against myelin sheath. There is a wide range of symptoms, including motor and sensory deficits, vision problems, and behavior changes.

Case report: A 42-year-old female patient was diagnosed with MS in 2013. The first representation of the disease was weakness and reduced sensation on the right side of the body. Relapse-remitting MS was diagnosed and beta interferon therapy was initiated, leading to remission. In 2018, depressive-anxious symptomatology escalated, so paroxetine and teriflunomide were included in therapy. In 2022, the patient exhibited a shift in behavior and became occupied with sexual thoughts, fantasies, and actions, including increased masturbation, provocative dressing, and reduced social inhibitions. It affected her marriage and social interactions. Three months later, she sought medical help. Paroxetine was excluded from the therapy and quetiapine was included because of the assumption that she might have bipolar disorder. However, there was no improvement. The patient started a three-day treatment with three milligrams of methylprednisolone, and two weeks later, she became anxious about her previous behavior. A follow-up magnetic resonance imaging six months later revealed three new lesions in the front orbital area, initially overlooked by the radiologist. New lesions proved that inappropriate sexual behavior was a symptom of MS relapse.

Conclusion: Sexual symptoms, like decreased libido, are common in MS patients. However, this patient presented MS relapse with hypersexuality. It is important to broaden our perspective on MS, consider, and never exclude, any symptoms as potential MS relapse, in order to treat them properly, and in time.

Keywords: Methylprednisolone; Multiple Sclerosis; Relapse

CR75

Morel-Lavallée lesion of the knee: A case report

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Introduction: Morel-Lavallée lesion (MLL) is a traumatic closed degloving soft tissue injury, most commonly resulting from high-energy shear forces. It is characterized by a hemolymph and necrotic fat that forms within the subcutaneous tissue, fascia or muscle layers. MLL is most commonly found in the pelvic, gluteal and femoral region. In this case report, MLL of the knee is presented as a rare but possible localization.

Case report: A 25-year-old male patient was admitted to the Department of Orthopedics and Trauma-Surgery at University Hospital Center Osijek due to direct trauma of the left knee caused by fall. Experienced symptoms were swelling, pain and stiffness in the affected area. Magnetic resonance imaging scan showed parapatellar medial synovial cyst measuring 52x16 millimeters. Physical exam showed in the prepatellar and parapatellar medial region a smaller amount of fluid overflowing into the prepatellar bursa for compression. Conservative management implies compression bandaging as best in smaller lesions with no capsule. Therapeutic options may include drainage of the hematoma combined with sclerotherapy, primarily with local usage of doxycycline. Analgesics, anti-inflammatory drugs and physical therapy are recommended to help restore mobility and strength to the affected area. Surgical interventions are needed in bigger lesions or if complications occur, such as infection of mass.

Conclusion: MLL of the knee is often overlooked and misdiagnosed, which consequently affects the selection of the therapeutic option which consequently affects healing time. In our case, the correct diagnosis with the correct therapeutic approach led to the quick recovery of an active young individual.

Keywords: closed degloving injury; Morel-Lavallée lesions; shearing force

CR76

Immune-checkpoint inhibitor-mediated endocrinopathies in a patient with squamous cell carcinoma of the lung

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Introduction: Pembrolizumab is an immune checkpoint inhibitor that is increasingly used as oncologic therapy, but these drugs could trigger autoimmune reactions against multiple endocrine glands.

Case report: A 75-year-old male patient was admitted with weakness, somnolence, chills, high body temperature, and dehydration. Routine tests showed raised blood inflammatory parameters and bilateral pneumonia. He has been treated with pembrolizumab because of squamous cell carcinoma of the lung for the past 6 months. After antibiotic therapy and rehydration, his condition improved, but he developed episodes of early morning severe disorientation without other neurologic deficits. Laboratory follow-up showed a drop in inflammatory parameters, low sodium (130 mmol/L), and very low fasting glucose (1 mmol/L) without antihyperglycemic therapy. Additional work-up confirmed low glucose with adequately low insulin, low cortisol (90 nmol/L), low adrenocorticotropic or ACTH (0.3 pmol/L), low gonadotropins, and testosterone. Thyroid-stimulating hormone (TSH) was high (46.03 mIU/L) and free thyroxine was low (3.43 pmol/L). Partial hypopituitarism and primary hypothyroidism were presumed. Immediate hydrocortisone therapy was initiated followed by levothyroxine. The patient dramatically regained strength and full cognitive function. Pituitary MRI showed heterogeneous contrast imbibition, adenohypophysis volume reduction, and partial empty sella suggesting non-specific changes potentially secondary to hypophysitis of longer duration. A confirmatory ACTH-stimulation test was performed during follow-up. Pituitary-gonadal axis recovered suggesting that its insufficiency might be related to acute illness.

Conclusion: Isolated corticotropin deficiency is known, but a rare consequence of pembrolizumab-mediated hypophysitis that might be lethal if unrecognized. Newly encountered thyroiditis with severe hypothyroidism in this patient was probably mediated by pembrolizumab too.

Keywords: Hypoglycemia; Hypophysitis; Thyroiditis

CR77

Free microvascular flap surgery in polytraumatized patient – anesthesiologist's approach and challenges

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Introduction: Free microvascular flap surgery is a rare procedure, done in patients who suffer vast tissue damage. Contrary to pedicled flaps, free microvascular flaps are firstly detached from their original blood supply and then transplanted to damaged areas using microvascular procedures.

Case report: A 21-year-old patient was admitted to the hospital with extensive avulsion of the scalp following a machinery accident. Emergency debridement was performed, and the patient was admitted to the Intensive care unit (ICU) where a tracheostomy was performed, to avoid neck manipulation because of the axis and C7 vertebrae fractures she suffered. To reconstruct the scalp defect, free microvascular flap surgery was performed two weeks later, using the latissimus dorsi myocutaneous flap which was raised and then attached to the left superficial temporal artery and vein. To ensure optimal flap perfusion, the patient was placed on a heated blanket with additional invasive blood pressure (IBP) and urine output (UO) monitoring. She was given 2250 ml of crystalloids, 500 ml of albumins, and two units of red blood cell concentrate alongside a continuous infusion of 6% hydroxyethyl starch solution and dopamine via a right femoral central venous catheter after the anastomosis was formed. The surgery was successful.

Conclusion: Hyperdynamic circulation is crucial for survival of the flap in this type of surgery so systolic blood pressure over 100 mmHg, hematocrit of 30 %, and UO of a minimum of 2 mL/kg/h are targeted. Large amounts of fluids are usually administered, looking out for edema formation since diuretics are contraindicated.

Keywords: anesthesiology; blood circulation; free tissue flaps; plastic surgery; scalp

CR78

Sweet Syndrome: A Complex Encounter with Jejunal Perforation

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Introduction: Sweet syndrome is an acute febrile neutrophilic dermatosis characterized by the abrupt appearance of edematous and erythematous plaques or nodules on the skin. Hypersensitivity to eliciting bacterial, viral, or tumor antigens may trigger localized neutrophil activation and infiltration.

Case report: An 81-year-old male with a history of arterial hypertension, coronary artery disease, and an aortic bioprosthetic valve was urgently admitted to the medical intensive care unit due to fever and malaise. Multiple erythematous skin lesions with necrosis were prominent on the legs, arms, and back. Also, cellulitis on the right lateral femoral region was observed. Leukocytosis $42 \times 10^9/L$ with neutrophilia, lactate 6.9 mmol/L, and procalcitonin of 3 ng/L were significant laboratory findings. Sepsis with septic emboli was the working diagnosis. Endocarditis and intracardiac masses were excluded by echocardiography. Empirical treatment with meropenem and vancomycin led to the resolution of cellulitis. Sweet syndrome due to the morphology of skin lesions was suspected and confirmed by histopathological skin analysis. Treatment with corticosteroids resulted in the skin lesions resolution. On the 10th day of hospitalization, the patient reported lower left abdominal pain and tenderness without guarding. A computed tomography scan revealed jejunal perforation without mesenteric thrombosis. Emergent resection of the perforated jejunum with jejunojejunal anastomosis was done. Necrosis with leukocyte infiltration was found on the perforation site by histopathological analysis.

Conclusion: This presentation highlights the importance of differential diagnosis of cutaneous lesions in patients with sepsis. We suspect that sepsis resulted from cellulitis in the context of skin lesions associated with Sweet syndrome, which also involved the jejunum.

Keywords: Cellulitis; Intestinal perforation; Sepsis; Sweet syndrome

CR79

Renoprival malignant hypertension with damage to the target organs – case report

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Introduction: Malignant hypertension is a hypertensive emergency characterized by small artery fibrinoid necrosis in target organs, if untreated it has very poor prognosis. The emergency symptoms depend on the organs affected and it represents an epidemiological problem due to the increase in prevalence in European countries.

Case report: A 51-year-old male with known untreated arterial hypertension was admitted to the emergency department of University Hospital Centre Osijek due to hypertensive emergency (presented with headache, azotemia and macrohematuria). Upon admission, the patient had grade 3 hypertension (230/158 mmHg) with damage to the target organs (papilledema, hypertensive encephalopathy, left ventricular hypertrophy and exacerbation of chronic kidney disease grade 4-5). Despite several antihypertensive drugs including Minoxidil the patient had refractory arterial hypertension. During the observation, biopsy revealed hypertensive nephroangiosclerosis with superimposed thrombotic microangiopathy. No secondary causes of arterial hypertension were found. It was concluded that the patient had renal malignant hypertension with damage to the target organs together with worsening of chronic kidney disease. Then he was responsibly transferred to Zagreb, where percutaneous radiofrequency denervation of the renal arteries was performed and his hypertensive therapy was modified. The patient now has grade 1 hypertension and chronic renal insufficiency grade G4A2.

Conclusion: Although the incidence of hypertension is globally high and there are many treatment options, there are still cases where appropriate lifestyle measures and conventional drug therapy won't be sufficient. Therefore, we need to treat each patient in a personalized way and adapt the therapy to the case.

Keywords: Hypertensive Crisis; Malignant Hypertension; Sympathectomy

CR80

Restoring Confidence and Appearance: Lipofilling Resolves Post-Oncologic Aesthetic Deformities

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Introduction: Lipofilling is a reconstructive surgical technique that involves the transfer of fat tissue, typically harvested from the patient's own body, to address aesthetic deformities and volume loss resulting from previous surgeries or radiotherapy.

Case report: The patient, a 36-year-old female, presented with invasive ductal carcinoma of the breast, classified as luminal A subtype. The tumor measured 20 mm in diameter, located in the right medial quadrant of the right breast. The patient underwent quadrantectomy and the sentinel lymph node biopsy, which was negative. After the completion of the radiotherapy, a significant concavity in the right breast's medial quadrant was observed. The decision was made to do an aesthetic repair with fat grafting and stem cells. The fat was harvested using the Coleman method. The patient's fat was extracted through manual liposuction from the abdomen and thighs. Following extraction, the fat underwent centrifugation to separate oils and fluids, isolating viable adipose tissue. This process also concentrates associated stem cells and growth factors while removing unwanted fluids. The refined fat was then meticulously injected into the right breast's medial quadrant using blunt-tipped cannulas, ensuring precise placement of small quantities with each pass. This technique ensures adequate vascularization, crucial for graft survival.

Conclusion: After the procedure, there was a minimal scar remaining, and the volume of the breasts was replenished and restored. This case underscores the efficacy of lipofilling as a reconstructive method in addressing post-oncologic aesthetic concerns, contributing to improved patient outcomes as well as overall quality of life.

Keywords: Carcinoma, Ductal, Breast; Lymph Node Biopsy, Sentinel; Reconstruction, Breast

CR81

Lymphoscintigraphy pitfall: undetected metastatic melanoma in the right axilla and neck region

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Introduction: Lymphoscintigraphy is a commonly used method for imaging lymphatic drainage in patients with malignant melanoma. However, the diagnostic utility is not always warranted, as demonstrated in this case report.

Case report: We present a case of a 62-year-old male patient hospitalized for bed re-excision of a previously removed breast melanoma. Preoperatively, a lymphoscintigraphy with Tc-99m was performed, in which a sentinel lymph node in the left axilla with intense saturated activity was avid and therefore surgically also removed. Pathohistological examination showed no infiltrate of tumor tissue. Two months after the operation, the patient had palpable mass in his right axilla, and the ultrasound confirmed pathologically altered lymph nodes. Urgently performed Positron Emission Tomography–Computed Tomography (PET-CT) scan demonstrated enlarged lymph nodes in the right axilla as well as an enlarged lymph node along the medial contour of the right clavicle between sternocleidomastoid and sternothyroid muscle. The cytologic findings confirmed a malignant metastatic melanoma in both regions for which the patient underwent two surgical operations. Due to the detected V-Raf Murine Sarcoma Viral Oncogene Homolog B (BRAF) gene mutation, the patient was initially prescribed pembrolizumab. Afterwards, he continued treatment with dabrafenib and trametinib, to which he responded well, as an ultrasound scan one year later showed no pathological abnormalities.

Conclusion: This case shows that the findings of lymphoscintigraphy should be interpreted with caution, as melanoma metastases were not detected. Careful patient positioning and imaging in more than one projection could be helpful in detecting additional nodes.

Keywords: Lymph Nodes; Lymphoscintigraphy; Melanoma; Radiopharmaceuticals

CR82

Metastatic pleomorphic liposarcoma of the upper limb – a case report

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Introduction: Pleomorphic liposarcoma is an uncommon and highly aggressive subtype of liposarcoma, typically manifesting in the proximal extremities. Its rarity, prevalence in late adulthood, and propensity for deep-seated localisation pose a therapeutic challenge. We present a case of a 77-year-old patient with a tumor-related growth localized in the left scapula.

Case report: A 77-year-old male, with a history of hypertension and ulcerative colitis, sought medical attention due to a month-long history of progressive pain and swelling in his left shoulder. The symptoms were initially misattributed to musculoskeletal strain, but their persistence prompted further evaluation. Physical examination revealed a palpable mass in the scapular region with associated tenderness and restricted joint mobility. Further diagnostic imaging revealed a 13x6.5x8 cm mass adjacent to the scapula, along with enlarged mediastinal lymph nodes and the right adrenal gland, suggestive of metastases. Biopsy confirmed high grade pleomorphic liposarcoma. Despite metastases, the patient underwent primary tumor extirpation to achieve local disease control and alleviate symptoms. Surgery involved en bloc excision and extensive muscle resection around the scapula. Postoperatively, the patient developed an atrioventricular block, necessitating pacemaker implantation. Despite radiation therapy (60Gy in 30 fractions), disease dissemination occurred, notably in the left lung with nodular projections, extensive pleural effusion, and right lung atelectasis. Planned doxorubicin chemotherapy was complicated by progression in the right hip, concurrent respiratory insufficiency and infection, treated by ceftriaxone.

Conclusion: This case highlights the complexities of managing metastatic sarcoma amidst existing comorbidities, emphasizing the need for a comprehensive, multidisciplinary approach to optimize patient care.

Keywords: chemotherapy; liposarcoma; neoplasm metastasis; plastic surgery; radiotherapy

CR83

Case report: A rare case of cystic atypical carcinoid of the lung

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Introduction: Lung carcinoids are neuroendocrine neoplasms that can be classified into, histology based, typical and atypical types. They are a rare entity, comprising about 2% of all diagnosed lung neoplasms.

Case report: We present the case of a 69-year-old patient who underwent an X-ray scan, revealing a shadow with a diameter of 23 mm. The positron emission tomography - computed tomography (PET-CT) scan showed intense pathological metabolism in the lobulated expansive lesion located anterobasally in the lower lobe of the right lung. The operation was performed, and the resected material was sent for pathohistological analysis. A whitish, granular tumor (1,2 x 0,6 cm) was found inside the cyst (cyst diameter 5,5 cm). Histologically, the tumor formed solid and trabecular clusters of relatively uniform cells with oval and hyperchromatic nuclei and eosinophilic cytoplasm. Immunohistochemically, the tumor tissue expressed positive antigens for neural cell adhesion molecule (CD 56), Synaptophysin, and Chromogranin A, and negative antigens for Cytokeratins 7 and 20, Caudal type-homebox 2 (CDX2) and p40. Ki 67 was 15%, and 3 mitoses were found on 2 mm². Microscopically, invasion inside the blood and lymphatic vessels, as well as airway spread, was present. The histological and immunohistochemical features suggested an atypical carcinoid, i.e., a neuroendocrine tumor grade II.

Conclusion: Atypical carcinoids are rare tumors that behave extremely aggressively and can result in early metastasis. Although cystic atypical carcinoids in the lung are extremely rare entities, with a scarce number of documented cases, we have to take them into account when making a differential diagnosis.

Keywords: Carcinoid tumors; Lung neoplasms; Neuroendocrine tumors

CR84

Recurrent ventricular tachycardia with epicardial focus – case report

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Introduction: Ventricular tachycardia (VT) is a malignant arrhythmia with a high recurrence risk. Catheter ablation is recognized as a contemporary treatment for refractory ventricular arrhythmias. Despite detailed 3D mapping and ablation from the endocardium, approximately one-third of VT electrical circuits remain inaccessible.

Case report: A 46-year-old male was presented to the emergency department due to palpitations lasting approximately 2 hours. An electrocardiogram (ECG) revealed broad QRS complexes tachycardia, at a rate of 180/min. Laboratory tests showed no significant changes. 30 minutes upon admission, the patient became hemodynamically unstable. After repeated cardioversion and subsequently administered amiodarone, sinus rhythm was restored. The patient had the same symptoms and ECG two times before this event and was diagnosed with recurrent VT. Considering the ECG and electrophysiological characteristics of the tachycardia at endocardial mapping, it was determined that the patient had an epicardial tachycardia focus. Therefore, after a cardiac surgeon placed a catheter into the pericardium, an activation map of the epicardium was obtained, revealing focal VT with a focus between the ventricles. Radiofrequency energy was delivered to the specified area, resulting in the termination of tachycardia. The patient remained hemodynamically stable throughout the post-procedural period, with a clinical picture of pericarditis. Anti-inflammatory therapy was initiated and 5 days after the procedure, the patient was discharged symptom-free.

Conclusion: Epicardial transthoracic catheter ablation is a minimally invasive procedure proven useful for treating VT with epicardial focus, which seems more frequent after myocarditis. Understanding of the technical approach, clinical indications, and potential complications is required to ensure procedural success.

Keywords: Epicardial Mapping; Radiofrequency Ablation; Ventricular Tachycardia

CR85

Left ventricular hypertrophy caused by hypertrophic cardiomyopathy or essential hypertension

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Introduction: Hypertrophic cardiomyopathy (HCM) is a disease that causes heart muscle enlargement. It is caused by mutations in the gene for cardiac sarcomere proteins. People with HCM are at higher risk for developing atrial fibrillation with its related complications such as stroke and may also lead to heart failure and sudden cardiac arrest.

Case report: A 45-year-old woman came to Polyclinic Osijek for a second opinion after being diagnosed with essential hypertension. She is subjectively without major difficulties, except for dyspnea when bending down with increased blood pressure in home conditions. She also had palpitations after stomach pain, but she was treated for gastroesophageal reflux disease (GERD) and hiatal hernia. N-terminal pro-B-type natriuretic peptide (NT-proBNP) was elevated (423 ng/L). Electrocardiogram (ECG) showed left axis deviation and left ventricular hypertrophy. The ultrasound showed thickening of the walls, especially thickened interventricular septum (16-17 mm) without left ventricular outflow tract obstruction (LVOTO) and magnetic resonance imaging (MRI) confirmed it, so she was subsequently diagnosed with HCM. The progress of the disease will be monitored with regular cardiology examinations. The continuation of GERD and hypertension therapy is recommended.

Conclusion: HCM often goes undiagnosed because many people with the disease have few symptoms or it can be mistaken for hypertrophy caused by arterial hypertension. However, thickened heart muscle can cause many complications and unpleasant symptoms, which is why early detection, control and treatment are crucial. Ultrasound of the heart is the method used to suspect HCM, while the final diagnosis was made based on MRI of the heart, as it is the gold standard for the diagnosis of HCM.

Keywords: dyspnea; essential hypertension; hypertrophic cardiomyopathy

CR86

Reversible Loss of Visual Acuity due to Carotid Artery Stenosis

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Introduction: Vision loss can be of sudden or gradual onset and can have multiple causes. Because some types are reversible, it is of great importance to determine the exact cause.

Case report: A 62-year-old female complains of loss of visual acuity in the lower half of the right visual field. Disturbances appeared approximately 1.5 months ago. In the meantime, the carious tooth on the right was repaired, after which she states that the visual disturbances disappeared and did not return. An ophthalmologist's examination did not reveal a clear cause of the outage. The bulbomotrics was normal and painless, the Papilla Nervi Optici (PNO) had clear borders, the macula was normal, however, on examination of the fundus, atherosclerotic changes in the vasculature were observed. The patient is taking Norprexanil, vitamin D3, Euthyrox (due to hypothyroidism), and Coupet, which she stopped taking. She was referred for further neurological and neuroradiological examinations. Neurological examination did not reveal any abnormalities. Color Doppler (CD) showed the presence of stenosis in the proximal part of the internal (ACI; 60%) and external carotid artery (ACE; 70%), on the right. A stenosis (40-50%) was also present on the left ACI and ACE. The direction of circulation in both ophthalmic arteries was physiological. In addition, transcranial CD showed an accelerated flow in the anterior cerebral artery on the left, suggesting stenosis. Computed tomography angiography was suggested, and a vascular surgeon was consulted. Endarterectomy of ACI was performed, preventing the possibility of cerebrovascular insult.

Conclusion: Due to complex etiology of vision loss, cooperation of different specialists is needed. Only a thorough examination and multidisciplinary approach can ensure the best outcome for the patient.

Keywords: Carotid artery stenosis; Color Doppler ultrasonography; Visual acuity

CR87

Non-Hodgkin lymphoma induced intussusception in a pediatric population: a case report

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Introduction: Intussusception is a pathological invagination of the proximal into the distal part of the intestine. It is the most common abdominal emergency in early childhood. Although most cases are idiopathic, about 25% are due to certain infections, as well as Meckel diverticulum, polyps, small bowel lymphoma, and certain autoimmune diseases.

Case report: A 5-year-old boy presents with profuse vomiting and abdominal pain. He was admitted to the hospital where he underwent radiological evaluation. Abdominal X-ray revealed a distended small bowel loop in the left hemiabdomen with an air-fluid level. The abdominal ultrasonography image was consistent with that of an intestinal invagination. In addition, a larger aortocaval lymph node was detected. The boy was transferred to the Department of Surgery for an emergency operation. The intestine was partially necrotic. Subsequently, an excision of the jejunum was performed, as well as appendectomy. An intestinal sample, along with the mass and regional lymph nodes and the appendix, was sent for pathological examination. Histologically, there was a diffuse proliferation of atypical medium-sized lymphocytes with a distinctive "starry sky" phenomenon. The histological pattern corresponded to high-grade mature B-cell non-Hodgkin lymphoma, with the Burkitt lymphoma as a primarily considered diagnosis.

Conclusion: With every child above 5 years of age, careful consideration is essential when presented with intussusception. When intussusception occurs outside of the typical age range, it is likely to be associated with underlying malignancy, so the pathophysiological analysis and observation of the patient are of the utmost importance.

Keywords: Emergencies; Intussusception; Lymphoma, Non-Hodgkin

CR88

A rare occurrence of a foreign body in the Eustachian tube

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Introduction: The Eustachian tube is a structure that connects the middle ear to the nasopharynx. The function of the tube is to balance pressure in the middle ear, drain fluid from it, protect the ear from hearing sounds that body produces and nasal drainage. Foreign bodies of the external ear are very common, but the same cannot be said about the middle ear, especially for the Eustachian tube.

Case report: This is a case report about a metallic foreign body found in the tympanic part of the Eustachian tube. A 35-year-old man came to the hospital complaining only of pain and sensation of dullness in the right ear. During a clinical examination, it was found that the patient had a perforation of the tympanic membrane in frontal quadrants. Pure-tone audiometry was indicated, which confirmed conductive hearing impairment. Furthermore, a temporal bone computed tomography (CT) scan was performed, which showed the existence of a metallic foreign body in the tympanic part of the Eustachian tube. This was a work-related injury that occurred in a foundry, but the man was not aware of it. The foreign body was surgically extracted under local anesthesia, followed by a myringoplasty, which resulted in a complete hearing recovery.

Conclusion: Patients with sudden and unexplainable auditory symptoms should be subjected to additional radiological diagnostic methods, in order to swiftly diagnose rare phenomena such as this one. Safety at work and means of protection, should be a priority, in order to avoid injuries and endangering lives.

Keywords: Audiometry; eustachian tube; foreign bodies; myringoplasty

CR89

Chimeric subscapular artery flap in reconstruction of complex oromandibular defect

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Introduction: Advanced oral squamous cell carcinoma frequently involves adjacent facial structures, like the mandible, floor of the mouth muscles, and facial skin, and surgical resection often leaves complex defects. Synchronous reconstruction of multiple epithelial surfaces and facial bone is essential, and the chimeric subscapular artery flap, relying on a single vascular pedicle, presents a reliable option with favorable outcomes.

Case report: A 54-year-old male patient presented with T4aN3bM0 squamous cell carcinoma of the floor of the mouth. Multislice computed tomography (MSCT) scans revealed a large tumor of the anterior tongue and floor of the mouth, with bicortical mandibular involvement and infiltration of the submental skin. A wide surgical resection with bilateral modified radical neck dissection was performed, creating an extended class IV defect (Brown 2016) of the mandible. The defect was reconstructed subsequently using a chimeric subscapular artery-based free flap, incorporating the parascapular fasciocutaneous flap (for the reconstruction of the oral mucosa), lateral scapular border and the tip of the scapula (osteotomized and used for mandibular reconstruction), and myocutaneous latissimus dorsi flap (to reconstruct the external skin defect and floor-of-mouth defect). The healing was uneventful. The patient resumed a full oral diet 10 days postoperatively with excellent speech intelligibility and was discharged from the hospital 16 days after surgery. He underwent adjuvant concurrent chemoradiotherapy and has remained disease-free 5 years after the procedure.

Conclusion: The chimeric subscapular artery flap is a valuable resource in advanced oromandibular reconstruction. It provides an ample source of composite tissue for the reconstruction of complex defects with excellent functional and aesthetic outcomes.

Keywords: mandibular reconstruction; squamous cell carcinoma; surgical flaps

CR90

The game-changing role of microwave ablation in metastatic colorectal cancer care

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Introduction: Colorectal cancer (CRC) is the world's third most common cancer, with liver metastases being the leading cause of death among those affected. Standard treatments include surgery, chemotherapy, and immunotherapy. Microwave ablation (MWA) is recognized as a minimally invasive alternative to treat solid tumors. Microwaves cause frictional heating by oscillating water molecules, resulting in cellular death through coagulation necrosis. This case report looks at how MWA is transforming metastatic colorectal cancer management, potentially moving away from traditional treatment options.

Case report: We present the case of a 34-year-old man who has had chronic gastrointestinal symptoms. Colonoscopy revealed a tumor in the rectosigmoid colon, which was successfully removed during surgery. However, the response to systemic chemotherapy was poor, and a year after surgery, follow-up computed tomography (CT) scans revealed liver metastases, indicating the need for a right-sided hepatectomy. Despite initial success, liver metastases recurred. As a result, an interventional radiologist recommended CT-guided MWA therapy under local anesthesia. Five MWAs were successfully performed over a two-year period with no complications. After a year of remission, follow-up magnetic resonance imaging scans revealed no new metastatic lesions.

Conclusion: MWA can be performed under local anesthesia, has a high success rate and few complications, making it more appealing to patients who are not candidates for surgery or are resistant to chemotherapy. The presented case demonstrates MWA's promising short-term results. Nevertheless, longer studies are required to gain a better understanding of the role and efficacy of MWA in the long-term management of metastatic colorectal cancer.

Keywords: Hepatectomy; Local anesthesia; Microwaves

CR91

A new revision technique for combined anterior cruciate ligament and anterolateral ligament reconstruction using quadriceps and plantaris tendons

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Introduction: A new revision technique using quadriceps (QT) and plantaris (PLT) tendons as autografts for combined anterior cruciate ligament (ACL) and anterolateral ligament (ALL) reconstruction was developed for patients with ACL rupture.

Case report: A 24-year-old male athlete presented with pain and instability of the left knee. He was diagnosed with a rupture of the ACL and rupture of lateral meniscus. The first surgery of ACL reconstruction was performed 5 years ago. After rupture of the ACL, revision surgery was performed using PLT graft for ALL reconstruction, and QT graft for ACL reconstruction. The ACL-ALL graft was formed by double folding and suturing of the PLT together with QT for the ACL part and the rest of PLT was used for ALL part of the graft. Femoral footprint was identified, and a tunnel was drilled using outside in technique. The tibial tunnel was drilled by a standard retrograde drill. The ACL-ALL graft was fixed with screws in both tunnels. The lateral meniscus tear was treated with two all-inside sutures. On last follow up 1-year after the surgery, there was significant improvement in Lysholm, KOOS and IKDC scores.

Conclusion: This case report presents a new combined technique of ACL and ALL reconstruction using a combination of quadriceps (QT) and plantaris (PLT) tendons as grafts. This technique can be used for revision of ACL or primary reconstruction of ACL and ALL when hamstrings are not advisable or already harvested in previous ACL reconstruction.

Keywords: Anterior Cruciate Ligament; Ligaments; Reoperation; Tendons

CR92

Born with Broad, Flat and Thick Gyri; A Case Report

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Introduction: Pachygyria, a condition within lissencephaly, involves the broadening and thickening of brain gyri. Additionally, normal pressure hydrocephalus (NPH), mainly observed in adults, leads to abnormal cerebrospinal fluid accumulation and ventricular enlargement. This case report aims to underscore the critical importance of early diagnosis in influencing the disease course.

Case report: A male preterm neonate, born at 36 6/7 weeks, was admitted to the neonatal intensive care unit. Physical examination revealed signs of hypotrophy, a relatively enlarged head, mild facial dysmorphism with mongoloid-shaped eyes, coarse folds around the eyes and a broad nasal root. Strabismus was noted in the converging bulbi. Despite small size, limb proportions were appropriate. Brain ultrasounds indicated grade VII intraventricular hemorrhage. Magnetic Resonance Imaging showed bilateral pachygyria in frontal lobes, suggesting disrupted cortical organization during fetal brain development. Ventricular system enlargement without intracranial pressure signs was noted. White matter changes indicated perinatal ischemic sequelae. Subsequent hospitalization after a few months occurred due to unusual head and mouth movements. Follow-up ultrasound revealed expanded ventricular systems and choroid plexus irregularities, consistent with normotensive hydrocephalus. Clinical presentation and electroencephalography (EEG) recordings suggested infantile spasms, possibly linked to a cortical malformation with unclear genetic factors. Current treatment includes vigabatrin and prednisone for infantile spasms.

Conclusion: Early detection is crucial for timely intervention and appropriate treatment, significantly impacting outcomes. Recognizing these neurological conditions early provides a foundation for improving the lives of children facing complex neurological abnormalities.

Keywords: Cerebrospinal Fluid; Hydrocephalus, Normal Pressure; Lissencephaly; Premature Birth

CR93

Acneiform eruption due to treatment of ulcerative colitis with TNF- α blockers

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Introduction: Ulcerative colitis (UC) is a chronic inflammatory bowel disease that affects colon and rectum, often causing painful symptoms and impacting patient's quality of life. Tumor necrosis factor antagonists are potent biological drugs used to treat various autoimmune diseases. Known side effects of these drugs include infusion reactions, cytopenia, risk of infection and heart failure. A few cases of acne vulgaris associated with the use of these biological drugs, particularly infliximab and adalimumab, have been reported. We report a case of cystic acne induced by infliximab and adalimumab while treating UC.

Case report: Patient is a 38-year-old female who has been suffering from UC for the past 17 years. Patient is prone to acne and has an oily skin type. During the treatment of UC with infliximab followed by adalimumab, patient developed extensive facial nodulocystic acne. Both gastroenterologist and dermatovenerologist were actively involved in treatment. Clinical pharmacologist who was also consulted regarding the side effect of tumor necrosis factor- α (TNF- α) blockers pointed out that acne is not a common side effect of biological therapy, however, there is a connection between the use of this therapy and acne worsening. Further acne treatment involved discontinuation of TNF- α blockers, systemic treatment with azithromycin and lower doses of corticosteroids along with topical non-comedogenic therapy.

Conclusion: Through this case report, we emphasize the importance of an individualized approach when treating UC, while carefully monitoring side effects and adjusting therapy in order to achieve an optimal balance between controlling symptoms and minimizing side effects. Collaboration among different specialists, patient and a multidisciplinary team is essential.

Keywords: acneiform eruptions; biological therapy; inflammatory bowel diseases; ulcerative colitis.

CR94

Conservative treatment of third degree burns in patient with diabetes mellitus type 2: case report

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Introduction: The incidence of diabetes mellitus type 2 has quadrupled in the last fifty years. A common complication of type 2 diabetes is peripheral polyneuropathy, the most frequently affected body parts being lower extremities. Conservative treatment of such complications requires a multidisciplinary approach and long-term treatment. If said treatment is unsuccessful, amputation is advised. Due to increased risk of infection, 50% of lower limb amputations in patients with diabetes mellitus result in death within five years.

Case report: A 70-year-old patient was administered to hospital for right sided inguinal hernia operation. For the last 10 years the patient has been treated for type 2 diabetes. The operation was successful, but during the post-operative recovery patient suffered third degree burns caused by direct contact of his foot and the radiator. He was diagnosed with diabetic polyneuropathy and was referred for amputation, but ultimately received conservative treatment. The treatment lasted 3 months and consisted of neorectomy followed by application of Biatain silicone Ag dressing. The patient responded well to the treatment and achieved full recovery.

Conclusion: This case report showcases the benefits of conservative approach; the key to successful treatment is choice of appropriate therapy and consistency in treatment.

Keywords: burns; conservative treatment; diabetes mellitus

CR95

Treatment of patient with a severe dentoskeletal deformity – case report

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Introduction: Dentoskeletal deformities often present with malocclusion and discrepancies in soft tissue patient profiles. Treatment usually includes orthodontic preparation, virtual surgical planning (VSP), and surgical treatment. In this case report we present a complete treatment workflow in a patient with severe facial deformity and discuss possible treatment modalities.

Case report: 24-year-old female presented with severe dentoskeletal class III deformity with transversal deficiency of the maxilla. Orthodontic preparation included decompensating of occlusion and teeth separation. With the assistance of VSP, osteotomies of the upper and lower jaw and surgical splints were planned. Surgical treatment included bimaxillary surgery combined with maxilla split osteotomy. Postoperative occlusion was as planned. The recovery period went uneventful. Mandibular setback and maxillary advancement are the mainstays of treatment in patients with class III dentoskeletal deformity. Transversal width deficiency of the maxilla can be treated orthodontically with the Hyrax screw or surgically combining the Hyrax screw and surgically assisted rapid palatal expansion (SARPE). The maxillary split was performed during planned bimaxillary surgery to avoid more than one surgical procedure.

Conclusion: Virtual surgical planning plays a major role in diagnosing and treating patients with severe dentoskeletal deformities. For class III dentoskeletal deformity with transversal deficiency of the maxilla, bimaxillary surgery combined with maxillary split represents a great treatment option with good functional and aesthetic results.

Keywords: Jaw Abnormalities; Orthognathic Surgery; Planning Techniques

CR96

A giant malignant phyllodes tumor: a case report

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Introduction: Phyllodes tumors of the breast are rare entities, accounting for less than 1% of all breast tumors, while malignant transformation occurs in only 8% to 20% of cases. An accurate diagnosis is crucial in determining the appropriate extent of surgical intervention, especially since only pathohistological criteria can be used to distinguish benign phyllodes tumors from malignant ones.

Case report: The patient presented at the Clinical Hospital Osijek for a fine-needle aspiration cytology (FNAC) of the left breast, which was macroscopically enlarged with livid skin. FNAC indicated several clusters and traces of glandular epithelial cells and a few suspicious epithelial cells with degenerative changes. The cytologist recommended pathohistological verification. The multidisciplinary team recommended a core biopsy of the tumor, which revealed a fibroadenoma. Eventually, the patient underwent a left-side mastectomy. The pathologist examined breast tissue measuring 25x24x13.5 cm. Macroscopically, there was a unifocal white, ulcerated, necrotic, and partially cystic tumor measuring 13x12.5x19 cm. Histologically, the tumor demonstrated significant stromal overgrowth, heterogeneous stromal differentiation, and moderate to high stromal hypercellularity, and 17 mitoses within 10 high-power fields, leading to its classification as a malignant phyllodes tumor.

Conclusion: Distinguishing between phyllodes tumors and fibroadenomas is rather challenging through the physical examination and radiographic assessments. Careful pathohistological processing of the tissue and a coordinated multidisciplinary team approach are needed in order to choose the right therapeutic management for the patient due to the rarity of tumors, metastatic potential, and lack of effective and well-established therapy guidelines.

Keywords: breast; breast neoplasms; phyllodes tumor

CR97

Rhabdomyolysis Caused by McArdle's Disease

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Introduction: Rhabdomyolysis is a life-threatening condition characterized by myalgia, weakness, myoglobinuria, and elevated creatine kinase (CK). The most severe complication is acute kidney injury. Common causes are exogenous factors such as trauma and viral infections, although congenital disorders may underlie this condition. We present a patient with rhabdomyolysis caused by McArdle's disease - a rare muscle glycogenosis with a prevalence of 1 in 100.000 persons.

Case report: A 17-year-old male patient presented with myalgia and myoglobinuria after lifting heavy boxes. His personal and family history were unremarkable. He suffered a common cold one week prior. Laboratory findings revealed elevated CK (36870 U/L), aspartate aminotransferase (AST), alanine aminotransferase (ALT), urea, creatinine, and C-reactive protein (CRP). The diagnosis of viral myositis was presumed. He recovered completely and CK dropped, but remained permanently elevated (around 1500 U/L) which prompted a referral to a metabolic center. Metabolic tests gave normal results, except for the forearm exercise test which showed an insufficient increase in lactate which indicated a glycogenolysis defect. Genetic testing revealed a homozygous pathogenic mutation c.148C>T, p.(Arg50*) in the PYGM gene leading to the diagnosis of McArdle's disease. The patient was advised on dietary and exercise adjustments and remained symptom-free in the follow-up period.

Conclusion: Although common causes of rhabdomyolysis are exogenous factors, inherited diseases need to be considered in the differential diagnosis, especially if the patient has permanently elevated CK, recurrent episodes, or exercise intolerance. McArdle's disease is a common cause of recurrent rhabdomyolysis. Early recognition and adaptation of lifestyle habits may prevent rhabdomyolysis episodes.

Keywords: Creatine Kinase; Glycogen Storage Disease Type V; Rhabdomyolysis

CR98

Case of narcolepsy misdiagnosed as epilepsy

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Introduction: Narcolepsy is a rare sleep disorder characterized by the selective loss or dysfunction of orexin (hypocretin) neurons in the lateral hypothalamus. Clinical symptoms present as sleep-wake dysregulation (excessive daytime sleepiness (EDS), cataplexy, hallucinations, sleep paralysis, and disturbed sleep), along with motor, cognitive, psychiatric, metabolic, and autonomic disturbances. Seizures are not a symptom of narcolepsy. However, cataplexy may initially be misdiagnosed as a seizure. In about 10% of narcolepsy cases, cataplexy is the first symptom, which may lead to a misdiagnosis of epilepsy.

Case report: We present the case of a 28-year-old female patient who presented with repetitive loss of consciousness. According to her anamnesis, family and friends often find her on the floor unable to move or speak. Her mother reported flickering of eyelids and occasional muscle twitching, along with slurred speech. After consulting a neurologist, she received a diagnosis of epilepsy and was prescribed Levetiracetam. No results were obtained with this treatment. She went for the second opinion in tertiary medical center. The patient also reported excessive daytime sleepiness and on direct questioning she described sleep paralysis and hypnagogic hallucinations. Polysomnography was normal, but multiple sleep latency test indicated narcolepsy. After reevaluating clinical symptoms and conducting additional diagnostic procedures, the patient was diagnosed with narcolepsy. The selective serotonin reuptake inhibitor controlled her cataplexy and stimulant reduced daytime sleepiness.

Conclusion: This case report showed that narcolepsy can be mistaken for epilepsy despite a specific clinical picture. The diagnostic procedure, management and prognosis of these conditions are different and good anamnesis and direct questioning about symptoms can help in the right diagnosis.

Keywords: cataplexy; epilepsy; narcolepsy

CR99

Reconstruction of a cranial bone defect after neurotrauma with Palacos

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Introduction: Palacos is a high viscosity bone cement used in primary and secondary plastic reconstruction of bone defects. After a massive neurotrauma, in which a decompressive craniectomy was performed, Palacos is an excellent alternative for reconstruction.

Case report: We present a case of a 70-year-old male patient who suffered a massive neurotrauma after falling into an empty pool. He was admitted to Zadar General Hospital. Imaging technique of Computed Tomography (CT) showed subarachnoid hemorrhage (SAH) in the frontal and cerebellar regions on both sides, as well as subdural hematomas in the frontal and parietal regions on both sides. Emergent decompressive frontotemporoparietal craniectomy was performed and an external ventricular drain (EVD) was placed. The patient was transferred to Clinical Hospital Centre Osijek where he was treated in The Intensive Care unit and The Department of Neurosurgery for more than two months. In that time, multiple EVD's were replaced. Three months after being sent home, the patient was hospitalized again for a cranioplasty. In the first act, a ventriculoperitoneal (VP) shunt was placed, and in the second act, a cranioplasty using Palacos. The wound healed completely, and a control CT showed that the VP shunt was working.

Conclusion: Cranioplasty is extremely important, not only because it provides protection for the brain itself, but it is also important for the patient's psychological state. With the development of biomaterials like Palacos, we can not only treat patients, but leave virtually no visible defect after a massive trauma.

Keywords: subarachnoid hemorrhage; decompressive craniectomy; craniocerebral trauma

CR100

Waardenburg type II and Tietz syndrome - a case of complex genetic disorder

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Introduction: Tietz syndrome (TS) and Waardenburg syndrome type 2A (WST2) are rare autosomal dominant disorders caused by MITF and FOXP1 gene mutations located on 3p14.1p13. TS is characterized by congenital deafness and generalized skin, hair, and eye hypopigmentation, while WST2 typically includes variable degrees of sensorineural hearing loss, patches of depigmented skin and macrocephaly. This case presents a patient with clinical features of both TS and WST2.

Case report: We present a case of a 3-year-10-month-old male patient, born from a full-term pregnancy with numerous perinatal risk factors – perinatal asphyxia, periventricular hemorrhage gradus I/III and hydrocephalus, with an APGAR score of 3/6/8. Initial laboratory findings showed orotic aciduria with hyperammonemia. Patient's phenotype included macrocephaly, bilateral sensorineural deafness, heterochromia, horseshoe kidney, intellectual disability with speech pathology, fair hair and skin. Over time, numerous tests were performed, one of them being chromosomal microarray analysis, which identified heterozygotic deletion in the region 3p14.1p13, affecting the whole MITF gene and parts of FOXP1 gene. MITF gene codes a transcription factor which regulates normal melanocyte development, while FOXP1, which codes transcription repressor, has a critical role in normal organogenesis. The diagnosis of variants of two syndromes was made, WST2 and TS. Macrocephaly and sensorineural hearing loss being specific for WST2, while deafness, skin and hair hypopigmentation for TS. The patient received cochlear implant and mother was given future care instructions.

Conclusion: In most cases, TS and WST2 are the result of de novo gene mutations. In this case, a de novo mutation was found in the 3p14.1p13 region. This case shows the importance of understanding clinical features of both TS and WST2, given their complexity as genetic disorders with limited treatment options.

Keywords: Albinism ocular late onset sensorineural deafness; Tietz syndrome; Waardenburg Syndrome

CR101

Multi-technique approach for successful mitral valve repair: A case report

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Introduction: Mitral valve regurgitation (MR) is a condition where the heart's mitral valve doesn't close tightly, causing blood to flow backward into the heart's left atrium. This can lead to symptoms such as fatigue and shortness of breath, and if severe, may require surgical intervention to repair or replace the valve.

Case report: We present a 52-year-old male patient who reported to his general practitioner (GP) due to shortness of breath in prolonged physical activity within the last year. GP preformed auscultation of the heart during which diastolic murmur was heard within 5th intercostal space on the left side, indicating mitral insufficiency. The patient was referred to Cardiology department where transthoracic ultrasound (TTE) was performed. TTE revealed ejection fraction (EF) of 66%, left ventricular diameter of 51 mm, volume of the left atrium of 35 mm³ and eccentric regurgitation jet over mitral valve with vena contracta of 5 mm indicating moderate to severe mitral insufficiency. More accurate reading was required, so transesophageal ultrasound (TEE) was performed revealing regurgitation volume of 122 mm³, MR v_{max} of 6,28 m/s and effective regurgitant orifice area of 0,8 cm². Coronarography was also done to exclude significant coronary disease. The patient was admitted to Department of cardiac surgery for mitral valve repair procedure. During surgery, a combination of techniques was used: mitral ring annuloplasty, implantation of neo-chordae, triangular resection of P3 segment and Alfieri stitch (P3-A3). Postoperative TTE showed only trace of mitral insufficiency.

Conclusion: For successful mitral valve repair, early diagnosis, preserved EF and understanding pathophysiology of every case individually is crucial. Choosing multiple repair techniques is needed when one alone is not enough for a successful outcome.

Keywords: Echocardiography; Mitral Valve Annuloplasty; Mitral Valve Insufficiency

CR102

Lens dislocation – more than a surgery: a case report

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Introduction: Homocystinuria is a rare metabolic disorder caused by CBS enzyme deficiency that may lead to mental retardation, marfanoid habitus, osteoporosis, skin and hair hypopigmentation and thromboembolic events. The most prominent symptom, occurring in around 70 % of patients by the age of 8, is ectopia lentis.

Case report: A 26-year-old man was admitted to the Department of vitreoretinal surgery for surgical treatment of a bilateral inferotemporal lens dislocation and secondary glaucoma unresponsive to medical treatment. Light hair and bradydactylia, with no signs of marfanoid habitus or mental retardation, were found during the physical examination. The presence of horizontal nystagmus, bilateral subluxation of the lenses and bilateral amblyopia were first observed at the age of 3. Due to ectopia lentis and light hair, homocystein plasma concentrations were tested and revealed increased levels (15µmol/L). After a methionine restriction diet therapy combined with pyridoxine, folic acid and betaine supplementation followed by bilateral lensectomy, vitrectomy and sulcus fixation of the intraocular lens, the condition of patient was greatly improved.

Conclusion: Homocystinuria is often neglected in the differential diagnosis of ectopia lentis, even though 5 % of all lens dislocations may be attributed to it. Signs that might suggest ectopia lentis at early age include very high myopia, abnormal progressive myopia or high myopia without myopic fundus. Early diagnosis prevents life-threatening thromboembolic complications that usually occur in the late twenties since treatment from infancy reduces cardiovascular risk by 80 % to 90 %.

Keyword: Ectopia lentis; Glaucoma; Homocystinuria

CR103

Pseudoaneurysm of the posterior tibial artery after tibial shaft fracture treatment by titanium elastic nailing

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Introduction: Titanium elastic nailing is a safe and efficient method for diaphyseal fracture fixation in pediatric patients. Vascular injuries are uncommon complications.

Case report: A 7-year-old boy sustained a closed midshaft tibial fracture after a 1-meter height fall. Initial neurovascular status was normal. He was treated by closed reduction and titanium elastic nailing in another institution. The nails were introduced in an antegrade manner. During the early postoperative period, he developed a painful swelling of the proximal part of the lower leg. Doppler and computed tomography (CT) angiography showed a large pseudoaneurysm of the posterior tibial artery with a wide and short neck (9 mm and 1 mm), 2 cm distal from the popliteal artery bifurcation. Clinical signs of compartment syndrome developed and he was transferred to our institution for surgical treatment. During surgery, the pseudoaneurysm was resected and a defect of the artery wall (about 50% of the arterial circumference, 1 cm in length) was noted. Proximal and distal thrombectomy using 2 Fr Fogarty catheter resulted in good inflow and backflow. The arterial wall defect was reconstructed using a local subcutaneous vein patch. The postoperative course was uneventful.

Conclusion: Vascular injuries can occur during cortical fenestration (for insertion of the nails) and during the introduction of the titanium nails. Although uncommon, vascular complications after titanium nailing are a potential cause of significant morbidity and require early recognition and active treatment.

Keywords: Compartment Syndrome; Posterior Tibial Artery; Pseudoaneurysm; Tibial Fracture

CR104

Marjolin's Ulcers on Petrified Earlobes at Previously Frostbitten Ears

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Introduction: Marjolin's ulcers are cutaneous malignancies that arise in the setting of previously injured skin, longstanding scars, and chronic wounds. Burn scars are a common precursor, with the latency period for malignancy development ranging from 11 to 75 years. The average age at presentation is 59 years.

Case report: An 82-year-old male presented in 2020 with suspicious skin lesions. Alleging history of frostbite on the face and ears in 1957, he added not getting optimal medical care for the frostbite. Despite prior excision of actinic keratosis in 2012, rapid growth of a tumour on the right ear, an ulcer on top, and similar changes on the left ear, cheek, and temporal region were observed. The entire auricles were rigid on palpation, and moved as a single unit with manipulation. Advanced imaging (ultrasound, computerized tomography) discerned squamous cell carcinoma (SCC) in both ears. The right ear exhibited infiltrative basal cell carcinoma, while facial lesions were diagnosed as SCC in situ. The patient underwent surgical procedures including earlobe tumour excision, right ear amputation, wedge excision on the left ear, and removal of facial lesions. Pathohistological examination confirmed the diagnoses.

Conclusion: This case underscores the importance of monitoring chronic wounds and scars for timely malignancy detection. A multidisciplinary approach involving primary care physicians, dermatologists, surgeons, and oncologists, as well as burns and frostbite wound management and early recognition of malignant changes followed by surgical intervention, is vital in preventing and addressing Marjolin's ulcers.

Keywords: Basal Cell Carcinoma; Frostbite; Squamous Cell Carcinoma

CR105

Open tenorrhaphy for acute Achilles tendon rupture: A case report

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Introduction: Open tenorrhaphy is a crucial surgical approach for acute Achilles tendon rupture, aiming to restore function and prevent long-term complications. The procedure involves precise exploration, debridement, and repair to reestablish anatomical integrity and functional capability. However, challenges during the postoperative period can arise, as presented in the specific case below.

Case report: A 37-year-old male experienced an Achilles tendon rupture during a stair descent, resulting in severe pain. Examination revealed a palpable Achilles tendon defect, edema, and inability to perform plantar flexion. Immediate intervention included immobilization with a short leg cast in plantar flexion and open tenorrhaphy. The procedure involved tendon debridement, repair using the Krackow technique with a non-absorbable, braided polyester suture, size 2, epitendinous and paratendon sutures, and meticulous wound closure. Despite achieving a full return to everyday activities within 3 months, the postoperative period was marked by a persistent secreting ulcer in the wound region after open tenorrhaphy, which is essentially a granuloma of a foreign body (suture). This required drainage, wound care, and a four-week antibiotic course. The development of a hypertrophic scar marked local improvement, and the patient expressed satisfaction. However, ongoing issues necessitated further surgery involving granuloma excision, suture removal, debridement, vacuum-assisted closure, and local skin flap closure.

Conclusion: This case underscores the significance of open tenorrhaphy in the management of an acute Achilles tendon rupture and the challenges during the postoperative course. The comprehensive approach, including surgical techniques, wound care, and antibiotic therapy, emphasizes the importance of ongoing vigilance to address complications.

Keywords: Achilles Tendon; Tendon Injuries; Operative Surgical Procedures; Surgical Flaps

CR106

The use of free anterolateral thigh flap in traumatic dorsal hand injury

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Introduction: The anterolateral thigh flap (ALT) is a fasciocutaneous flap based on the septocutaneous or musculocutaneous perforators of the descending branch of the lateral circumflex femoral artery. The ALT flap is widely used due to its numerous advantages like adjustment of size and thickness and low morbidity of the donor site. The most common indications are the reconstruction of the head and neck, upper and lower limbs and abdomen walls. The aim of this case report is to present a new way of application for the free anterolateral thigh flap.

Case report: We present a 53-year-old man who injured his left hand while working on a combine harvester. He was admitted through the emergency room to the Department of Plastic and Reconstructive Surgery. Wound debridement was performed repeatedly, dressing was done using the negative pressure wound therapy – NPWT. The approximate location of the perforator is marked pre-operatively using skin orientation points and Doppler trial. When the conditions for the surgical reconstruction were met, the skin defect with exposed extensor tendons was covered with a free fasciocutaneous flap from the left thigh. Following the surgical intervention, the patient underwent a period of recovery and rehabilitation. The positive outcome of the procedure was evident as the patient successfully regained full function of his left hand.

Conclusion: This technique requires a short period of treatment and hence causes less damage to the donor site but shows a better and quicker recovery of the hand function. Furthermore, because of the decreased flap volume and bulk, this method provides improved contour and pliability enabling aesthetically and functionally pleasing outcomes.

Keywords: Musculocutaneous flap; Reconstruction; Traumatic injury

CR107

Fungal Invasion: Unveiling the Uncommon Culprit in Osteomyelitis

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Introduction: Skull base osteomyelitis (SBO) is a complex condition associated with a high risk of complications and poor clinical outcomes. Fungal SBO due to its rarity is diagnostically and therapeutically challenging.

Case report: A 54-year-old male patient with no comorbidities was admitted to the hospital with a 7-month history of constant pain in the maxillary area radiating to the head. The pain began after the placement of dental implants (upper left first premolar and molar). One month before hospitalization, the implants were removed, but the patient developed diplopia and blindness in the left eye. An extensive diagnostic workup revealed an infiltrative process highly suspicious for a tumor, but a lesion biopsy showed inflammatory cells. Apart from a slightly elevated CRP, there were no other signs of inflammation. Empirical therapy, including meropenem and vancomycin, was initiated. *Citrobacter koseri* was isolated. However, the patient's condition worsened, with the development of exophthalmos and ptosis. Additional microbiological analysis, including repeated sampling and testing revealed *Aspergillus fumigatus* in biopsy specimens. The patient was initially treated with liposomal amphotericin B, as voriconazole was contraindicated due to significant drug-drug interactions. One week after discontinuing carbamazepine, therapy was switched to voriconazole. The patient's condition partially improved, with regression of ptosis and headache.

Conclusion: SBO is a rare condition that requires a multidisciplinary approach for prompt diagnosis and tailored therapy. Although dental reconstructive surgery is not usually considered a risk for *Aspergillus* spp. SBO, our case highlights the importance of considering fungal infections as rare complications of dental surgery.

Keywords: *Aspergillus fumigatus*; Dental Implants; Mycoses; Osteomyelitis

CR108

Melanoma and nonmelanoma skin cancer in kidney transplant patient – a case report

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Introduction: Patients with transplanted organs require a long-term immunosuppressive therapy to maintain immunological tolerance of the transplanted organ. Said patients have an increased risk for malignancy, most commonly of the skin. Squamous cell carcinomas (SCCs) and basal cell carcinomas (BCCs) are the types that occur more frequently than others. SCCs and BCCs are part of the nonmelanoma group of skin cancers.

Case report: A male patient born in 1947 received a cadaveric kidney transplant in 2018 due to chronic renal insufficiency. In 10/2021 he presented with suspicious skin lesions on the left forearm, nose and right earlobe. Biopsy confirmed that all samples were SCCs and were later removed. Later that month, he came with another skin lesion resembling a pigmented skin tumour located on the chest. After total excision, the pathohistological results showed that it was an ulcerated melanoma. Edges and base of the sample were clean. Ultrasonogram of the neck, axillary and inguinal region showed no sign of lymph node invasion. The scar was resected and a sentinel lymph node biopsy was performed. The results of both procedures came back negative. In 10/2023 the patient presented with two skin lesions on the left arm and one on the back. Biopsy showed that the lesions were BCCs and were later removed.

Conclusion: Although nonmelanoma skin cancers appear more frequently in organ recipients, we must never exclude melanoma as a potential type of cancer. These patients must be carefully monitored for the rest of their lives.

Keywords: Basal cell carcinoma; kidney transplantation; melanoma; squamous cell carcinoma

CR109

Paratesticular macrocystic lymphatic malformation in a three-year-old boy - case report

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Introduction: Macrocystic lymphatic malformations represent congenital, benign tumors of lymphatic vessels. In the pediatric population, these tumors appear most often on the neck and axilla. Rare localizations are retroperitoneum and mediastinum, where these tumors reach their largest size. Extremely rarely, with only 20 described cases in the pediatric population, tumors develop in the scrotum. We are presenting a case report and diagnostic challenges in a three-year-old patient.

Case report: A three-year-old boy presented with a tumorous mass in the left scrotum, palpated by the parents. The skin at the surface was red with swelling beneath. The ultrasound examination revealed paratesticular multicystic lesion, suspected to be an epidermoid cyst. The mass was surgically removed and sent for pathohistological analysis. The received material was a multicystic tumor measuring 6.5x5x3.5 centimeters. The cavities were filled with serous and partially gelatinous liquid content. Microscopically, it was composed of cystically dilated structures of thin connective walls lined by a single row of flattened cells, which immunohistochemically showed a positive reaction to CD31 and D2-40. The histological, as well as the immunohistochemical analysis corresponded to the diagnosis of macrocystic lymphatic malformation. It appears to be removed in toto and the boy is being monitored. There are no remnants of the tumor and he has fully recovered.

Conclusion: This case report emphasizes the importance of consideration of rare cystic lesions in the differential diagnosis of paratesticular childhood cystic tumors. Most of those lesions are benign but still, multidisciplinary approach in the diagnosis and therapy is crucial.

Keywords: Lymphangioma; Lymphatic vessel tumors; Scrotum

CR110

Urgent penetrating keratoplasty due to bacterial keratitis and corneal perforation – case report

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Introduction: Corneal perforations are eye emergencies due to their devastating consequences that lead to vision and eye loss and often the necessity of bulb evisceration. Urgent penetrating keratoplasty is mandatory with the aim of preserving the anatomical integrity of the globe, saving vision, and reducing complications, especially in bacterial keratitis caused by very virulent strains.

Case report: A 40-year-old woman was urgently admitted to the Department of Ophthalmology in Osijek, Croatia in December 2023. She complained of left eye vision loss to light perception, headache, pain, and epiphora. A slit lamp examination revealed left eye ciliary injection, hypopyon, progressive corneal melting, and transparent lens. The eye ultrasound as well as movements were normal. Laboratory investigations were normal except for elevated neutrophil count. Conjunctival swab yielded *Staphylococcus aureus* and fortified tobramycin, vancomycin, and 1% atropine eye drops were instilled with oral acetazolamide, intravitreal vancomycin and parenteral Ceftazidime 3x1g and Vancomycin 2x1 g per day for 10 days. On the fifth day, hypopyon disappeared but the cornea perforated, and urgent penetrating keratoplasty was performed. A day after the surgery visual acuity was hand move, with no signs of infection, the anterior chamber was clear and deep, and the corneal graft was transparent.

Conclusion: Urgent penetrating keratoplasty preserves eye integrity and although a difficult surgical procedure is a therapy of choice to avoid eye evisceration. It is of great importance to react quickly with surgical and medical intervention to prevent the spreading of infection to the posterior eye segment. It is essential for eye banking to supply prompt corneal grafts for such urgent conditions as the success rate of corneal transplantations is promising in preserving eye integrity and visual function.

Keywords: corneal perforation; keratitis; penetrating keratoplasty

CR111

Hoarseness as the first symptom of glomus jugulare tumor

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Introduction: Glomus jugulare tumors (GJT) are rare paragangliomas at the base of the skull, within jugular foramen. Almost all of them are benign and slow-growing. Initial manifestation of the tumor may involve pulsative tinnitus and conductive hearing loss, but their progression can cause variety of symptoms.

Case report: This case describes a 54-year-old female patient admitted in local hospital for hoarseness. Clinical examination and ultrasound showed enlargement of the thyroid gland, while her hormone levels were normal, so they diagnosed her with non-toxic goiter. They concluded the hoarseness appeared as a result of thyroid gland pressing on the recurrent nerve and scheduled operation. During her hospitalization, new symptoms appeared. Patient's tongue was immotile, leaning towards the right side, along with weakness in her right shoulder, indicating damage of hypoglossal and accessory nerve. The initial diagnosis was ruled out and she was referred to clinical hospital center. Magnetic resonance (MR) imaging and computerized tomography showed mass with intracranial propagation, suspecting GJT. The mass was compressing nerves passing through jugular foramen, as well as hypoglossal nerve due to the expansion, causing paresis. The diagnosis was confirmed with MR angiography and further surgical treatment was planned.

Conclusion: Because of their specific location, GJT can cause large variety of symptoms. This case is an excellent example of an unusual clinical presentation of GJT, with first symptom being hoarseness. Any sign of lower cranial nerve damage should be carefully examined and less common differential diagnoses should be taken into consideration.

Keywords: glomus jugulare tumor; hoarseness; paraganglioma

CR112

A case of elevated serum cardiac troponin concentration after a fall, without evidence of Acute Coronary Syndrome (ACS)

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Introduction: Falls afflict over 33% of those aged 65 and above, and 50% of those over 85 annually, often leading to hospitalization and an 8% increased mortality risk within a year. Serum cardiac troponin (cTnI) has been considered the gold standard for detecting myocardial infarction since 2012. It is absent in healthy individuals, but rises 4-6 hours after myocardial injury, remaining detectable for up to 10 days.

Case report: A 67-year-old female presented to the emergency room after a fall from a ladder. All vital parameters were within normal values. She had pain, swelling, and limited range of motion in the right shoulder. An X-ray has revealed a right anterior shoulder dislocation. The reduction was performed. Laboratory results showed elevated cTnI concentration (78,1 ng/L). She was observed for three days without any clinical or electrocardiogram evidence of ACS. A computed tomography pulmonary angiogram (CTPA) excluded pulmonary embolism; a heart ultrasound performed by a cardiologist excluded any heart pathology that could be detectable on ultrasound. For three days cTnI was rising and then started falling, after a final concentration was within normal values the patient was released home. She came back a week later for heart magnetic resonance imaging that excluded any kind of heart pathology, and she was clinically well.

Conclusion: We conclude that cTnI concentration can be elevated due to trauma and stress but without any obstructive coronary artery disease. Furthermore, these patients are in no need of percutaneous coronary intervention or any kind of medication.

Keywords: Accidental Falls; Shoulder Dislocation; Troponin

CR113

Facial reconstruction and auricular cartilage autotransplant: a case report

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Introduction: Post-traumatic reconstruction of the face and neck area is extremely important for patients who have suffered trauma that leaves consequences and reminders on a part of the body that is constantly visible to the public. In this field of medicine, the process of growing tissue from stem cells as well as the application of repurposed allografts to achieve the most natural results, both aesthetically and immunologically, show great success.

Case report: Our patient is a 34-year-old police officer who presented to the emergency unit with evisceration of the ear cartilage as well as scarring of the cheek with preserved musculature and structure of the viscerocranium. Radial forearm free flap (RFFF) was chosen as the method of reconstruction. In addition to the mentioned graft, fat tissue was transferred from the patient's thigh to achieve an adequate symmetrical facial structure. The graft for ear cartilage reconstruction was taken from rib cartilage and was shaped according to three-dimensional (3D) reconstruction images. After shaping, the cartilage graft was placed subcutaneously in the right forearm to achieve blood supply and regeneration and was treated with a hydrogel made from a matrix enriched with stem cells obtained from the patient's bone marrow. After the completion of the reconstruction process, the graft was transplanted and covered in the previously described manner. The patient fully recovered with an extremely satisfactory aesthetic result.

Conclusion: In the example of this patient, we see how important it is to choose adequate methods and apply them by thinking beyond the usual limits. A personalized approach, the application of autografts, and 3D modeling is present, which at the same time constitutes the future not only of this branch of medicine but also of other fields.

Keywords: autograft; skin transplantation; stem cells

CR114

Shattered Boundaries: Navigating the Biomechanics resulting in Interprosthetic Femoral Fractures – A Unique Case Report

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Introduction: Interprosthetic fractures occur between two implants of the same bone and present a major therapeutic challenge. Bone resorption and altered force distribution are a significant long-term complication of endoprosthetic procedures and remain difficult to reinstate to physiological values. In this case, a combination of internal fixation and bioactive glass was used to reconstitute the fractured femur.

Case report: We present a case of a woman admitted to the Emergency Department after a fall that resulted in a spiral fracture of the left femur located on the bone's distal third. The patient had a total knee prosthesis done bilaterally 15 years ago and a total left hip replacement last year. A preoperative traction X-ray confirmed a multifragmentary interprosthetic fracture, whilst a thorough clinical examination ruled out other trauma-related conditions. The fracture was complicated with secondary anaemia and cardiomyopathy. Blood pressure, glucose, axillary temperature and other laboratory findings were within limits. Surgery was performed under spinal anaesthesia and standard thrombo- and chemoprophylaxis. The fracture was aligned and fixed with locking compression plates (LCP) and limited contact dynamic compression plates (LC-DCP). Larger defects were filled with injectable 45S5 bioactive glass putty. Postoperatively, two doses of red cell concentrate were administered and an early physical therapy regimen began.

Conclusion: We underline the importance of the biomechanical weight-bearing properties in bone fracture integrity after heterologous joint implants. Bioactive glass biomechanics were not tested in conjunction with the temperatures of methyl methacrylate polymerization and remain terra incognita. We warrant future studies in this area.

Keywords: Femoral Fractures, Distal; Fixators, Internal; Periprosthetic Fractures

CR115

Miller Fisher syndrome after West Nile virus (WNV) infection with incidental diagnosis of craniopharyngioma

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Introduction: Miller Fisher syndrome (MFS) is a rare variant of Guillain-Barré syndrome which is characterized by a triad of ataxia, ophthalmoplegia, and areflexia. It occurs as a response to a preceding infection (e.g., *Campylobacter jejuni*, Cytomegalovirus etc.). The aim of this study was to present patient with MFS due to uncommon causes such as WNV infection.

Case report: Fifty-three-year-old female patient was admitted to our department due to instability and clumsiness. Neurological examination at admission showed square wave jerk nystagmus, weakened deep tendon reflexes in both legs, intentional tremor of the arms, limb and gait ataxia with positive Romberg sign. Four days prior to hospitalization she was febrile. On an initial computed tomography (CT) scan incidental finding of a suprasellar craniopharyngioma was obtained. Magnetic resonance imaging confirmed the finding, and therefore it was contraindicated to perform lumbar puncture for cerebrospinal fluid (CSF) analysis. Electromyoneurography showed mild demyelination of motor nerve fibers in the legs. Serum and urine were sent for serology on neurotrophic viruses, *Borrelia burgdorferi*, Human Immunodeficiency Virus, *Treponema Pallidum*, WNV, Usutu virus and tick-borne encephalitis virus analysis. Positive result for recent WNV infection was reported. She was treated with intravenous immunoglobulins in addition to physical therapy. After 2 weeks, complete remission of neurological deficits was noticed. She was referred to endocrinologist and neurosurgeon for further treatment of craniopharyngioma.

Conclusion: MFS as a result of WNV infection is a very rare diagnosis. The growing incidence of WNV in Mediterranean countries indicates it may become more often. Although WNV infection was not confirmed in CSF, MFS diagnosis can be established by having triad of symptoms and positive serological tests.

Keywords: Ataxia; Miller Fisher Syndrome; West Nile virus

CR116

Bilateral delayed two-stage prosthetic breast reconstruction

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Introduction: Breast reconstruction surgery recreates the shape of the breast, aiding women who underwent mastectomy in regaining their self-confidence. The number of breast reconstructions is constantly increasing throughout the years, performed with different methods and their combinations. In this case report, we display the usage of delayed two-stage prosthetic breast reconstruction, a method that has a low failure rate, comparable with the immediate option.

Case report: We present a case of a 49-year-old woman that came in our clinic for breast reconstruction after bilateral radical mastectomy, followed by radio- and hormonal therapy, as treatment for bilateral invasive breast carcinoma five years prior her visit. Having in mind her previous surgical history, we recommended the two-stage breast reconstruction approach on both sides. The first step of this procedure was installing anatomically shaped, 450cc, submuscular tissue expanders on both sides through the same mastectomy incisions. The expanders were filled with 220cc of saline on each side. Subsequently, they underwent repetitive expansions in ambulatory settings during a one-month period. The second step was performed three months after the initial procedure, explanting the tissue expanders and implanting 475cc permanent silicone prosthesis, again through the initial, mastectomy incisions. The outcome was deemed positive by the patient and the operators, likewise.

Conclusion: Although the two-stage prosthetic breast reconstruction requires two separate surgical procedures, its relative simplicity, high patients' compliance and longer duration of the desired result are reasons for including this procedure in routine practice.

Keywords: Breast Reconstruction; Radical Mastectomy; Tissue Expanders

CR117

Delayed onset of hemothorax after rib fracture

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Introduction: Hemothorax presents one of the potential and life-threatening complications following a rib fracture. Hemothorax can be classified into two forms depending on the time of appearance: immediately after chest trauma and less common delayed form. Simple rib fractures are less likely to cause delayed hemothorax compared to complex one. We present a rare case of delayed hemothorax in a patient with isolated rib fracture.

Case report: A 22 years old patient presented to the emergency room with a left-sided chest pain radiating to his back that started after he sneezed. His medical history included an isolated sixth rib fracture with displacement 2 weeks ago when he was discharged from the emergency room with normal chest radiography findings and without any signs of hemothorax. During his readmission his vital parameters were normal, physical examination revealed pale skin and decreased breath sounds. Ultrasound and chest radiography showed left sided pleural effusion. Initial findings raised possibility of hemothorax, which was confirmed by chest computed tomography. He was admitted to the intensive care unit, blood transfusion was started and patient was stabilized for surgery. He underwent a video-assisted thoracoscopic procedure in which hemostasis and hemothorax evacuation were performed. Our patient was released from the hospital in a good clinical condition after 5 days.

Conclusion: It is well known that follow-up is necessary in patients with multiple rib fractures. Our case highlights the importance of recognizing life-threatening complications that can arise from a single rib fracture.

Keywords: Hemothorax; Pleural effusion; Rib fractures

CR118

Basal cell carcinoma-is rare localization the same as bad prognosis?

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Introduction: Basal cell carcinoma is the most common type of skin cancer, arising from basal skin cells and often a result of prolonged sun exposure. While it typically does not metastasize, it can cause local tissue damage. Early diagnosis and appropriate treatment are crucial for successful management of basal cell carcinoma.

Case report: A 70-year-old man noticed a pimple on his scrotum a month before visiting a urologist. It grew rapidly, causing itching and burning. After 10 days, a scab formed, fell off, occasionally bled, only to form again. In addition, he suffers from arterial hypertension. The first examination revealed changes on the left scrotum measuring 2x2cm, exulcerated, with a scab and a smaller wound area measuring 4x5cm. Regional lymph nodes are non-palpable. An ellipsoidal excision was performed under local anesthesia. The postoperative course was regular and the sutures were removed after 10 days. The section was sent to a pathologist for analysis, and a histological examination revealed a tumor composed of small, uniform round-oval cells. Tumor islands consisted of atypical squamous cells with necrosis and calcification. The stroma is abundant, myxoid in places. It was found to be basal cell carcinoma of the metatypical skin type.

Conclusion: Basal cell carcinoma often occurs in middle-aged and elderly people, in typical locations such as the head and neck region. However, BCC of the scrotum is very rare, with an incidence of 0.03%. Although this incidence is low, it is crucial to think about this localization when examining the skin in terms of a preventive self-examination, and also by a dermatologist.

Keywords: basal cell carcinoma; prevention and control; scrotum.

CR119

Surgical management of post-fracture osteomyelitis – a case report

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Introduction: Post-fracture infections pose a significant concern in surgery, impairing bone healing and function. Timely detection is crucial, necessitating interdisciplinary care. Successful infection eradication requires a combined approach involving both surgical intervention and antibiotic treatment.

Case report: A Caucasian man in his forties was brought to the emergency department with an open multi-piece fracture of the middle part of the right tibia. The patient suffers from diabetes mellitus, which is regulated by insulin therapy, and epilepsy. Upon admission, analgesic, gastroprotective, anticoagulant therapy, along with patient's regular therapy, as well as anti-tetanus prophylaxis was given. The patient was operated in an emergency procedure and an external fixator was placed. As part of additional diagnostics, a Computed Tomography scan of the right lower leg was performed. Five days after the first surgery, definitive osteosynthesis was performed with an intramedullary tibial nail. During his stay at the Orthopedics and Traumatology Clinic, he developed a wound infection. *Klebsiella pneumoniae* and *Enterobacter* spp. were isolated. Thorough debridement of bone and soft tissue was performed, Vacuum Assisted Closure was placed and antibiotic therapy according to the antibiogram was given. Unfortunately, the infection persisted and the patient developed osteomyelitis. Bonalive granules of ReproBone Novo were applied. The plastic surgeon performed a gastrocnemius flap and Thiersch to close the wound. During the stay at the department, the wound is regularly dressed and properly healed. Also, physical therapy is recommended.

Conclusion: Recognizing the potential complication, early awareness of osteomyelitis after fracture, thorough debridement, and a multidisciplinary approach are necessary for successful treatment.

Keywords: Infections; Osteomyelitis; Surgical Flap

CR120

Inherited Epidermolysis Bullosa-Associated Squamous Cell Carcinoma on the leg: when to amputate?

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Introduction: Inherited epidermolysis bullosa (EB) is a group of genetic disorders associated with skin fragility, which leads to the formation of blisters, erosions, and scars on the skin and mucous membranes in response to minimal mechanical trauma. EB is associated with an increased risk of aggressive cutaneous squamous cell carcinoma (cSCC), arising more frequently on the extremities.

Case report: A 21-year-old patient suffering from inherited epidermolysis bullosa presented with lesion on her right leg. It started in the form of a small crust that gradually began to grow over time. Physical examination revealed lesion located on the right lower leg below the knee, up to 1 cm above the skin level, oval in shape, 7 cm in largest diameter, hard consistency, brown, and covered with scaly crusts. Radiological diagnostics did not show bone infiltration. Previously, she operated similar lesions in the same place twice, which, based on the pathohistological findings, was squamous cell carcinoma, supracondylar amputation of the lower right leg was indicated and performed. No metastatic cells were found in the biopsy of the right inguinal lymph node.

Conclusion: In patients suffering from inherited epidermolysis bullosa who had the occurrence of two or more relapses of cSCC and additional lack of local possibilities of surgery reconstruction, amputation, as was in our case, could be an unwilling but necessary solution.

Keywords: Amputation; Squamous cell carcinoma; Relapse

CR121

Rehabilitation of an intervertebral disc extrusion by dynamic neuromuscular stabilisation exercises: A Case Report

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Introduction: Disc extrusion is a condition in which the nucleus pulposus of the intervertebral disc protrudes through the outer annulus fibrosus and extends beyond its normal limits. This protrusion can compress nearby spinal nerves or the spinal cord, resulting in symptoms such as pain, weakness or numbness in the affected area. Treatment usually involves a surgical approach, but there are also new conservative approaches.

Case report: We present the case of a 29-year-old patient who has been suffering from lumbosacral pain and occasional radiating discomfort in the left leg for ten years. He is being treated by a physiatrist, and his magnetic resonance imaging (MRI) findings show a broad-based disc extrusion at L5/S1 with bilateral nerve impingement. The neurosurgeon did not recommend the usual surgical procedure. On the advice of the physiatrist, individual exercises based on the principle of dynamic neuromuscular stabilisation (DNS) are introduced three times a week as physiotherapy. After a year of performing these exercises, new findings show an improvement in the patient's condition with the cessation of pain and the resumption of physical activities.

Conclusion: Treatment of disc extrusion with DNS exercises involves a comprehensive approach to restoring optimal movement patterns, stability and function of the spine. While DNS exercises do not directly target the bulging disc itself, they do aim to address underlying movement dysfunctions and promote spinal health, which can contribute to pain reduction and reduced risk of future injury.

Keywords: Intervertebral Disc Displacement; pain; rehabilitation

CR122

A case report of Nagata auricular reconstruction in a patient with bilateral microtia

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Introduction: Bilateral microtia is a rare congenital malformation wherein the auricles remain underdeveloped, often combined with ear canal atresia and conductive hearing loss. The Nagata technique utilizes autologous costal cartilage to shape a cosmetically and structurally pleasing external ear. A device called BAHA (bone-anchored hearing aid) can be surgically implanted into the mastoid cortical bone to improve conductive hearing loss. This case report describes the application of the Nagata technique and BAHA implantation on a patient with bilateral microtia.

Case report: Herein we report on a pediatric female patient who underwent two-stage bilateral auricular reconstruction. During the first stage, by harvesting and meticulously sculpting the sixth to ninth costal cartilage, the framework of the new ear was formed and implanted. A skin flap, with sufficient vascularization, is tailored over the cartilage. After 6 months, the second stage took place, consisting of ear elevation to achieve the desired projection from the mastoid. Ensuing the successful auricular reconstruction on both ears the patient underwent a left-sided BAHA implantation. No postoperative complications occurred, and she completed speech and hearing rehabilitation with excellent functional results, leading to a significant improvement in quiet and noise speech intelligibility.

Conclusion: By combining the best modern techniques aimed at aesthetic and functional outcomes, both the appearance and hearing were improved. Through presenting the nuances of applying the Nagata technique in this specific demographic, we aim to enrich the understanding of the procedure's intricacies, as well as to stimulate further discussion on optimizing outcomes in similar cases.

Keywords: Congenital Abnormalities; Congenital Microtia; Otorhinolaryngologic Surgical Procedures; Plastic Surgery Procedures

CR123

Arrhythmogenic right ventricular cardiomyopathy

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Introduction: Arrhythmogenic right ventricular cardiomyopathy (ARVC) is an autosomal-dominant hereditary disorder characterized by the loss of cardiomyocytes and their replacement with fibrous or fatty tissue. ARVC is manifested through heart failure, ventricular arrhythmias, and sudden cardiac arrest.

Case report: We follow a case of a 23-year-old male patient with congenital deafness who was admitted to the hospital due to chest pain, palpitations, and weakness. He also had diffused hyperpigmented spots. One month before the admission, the patient was seen in another hospital due to an episode of ventricular tachycardia (VT) and was discharged on bisoprolol after successful electrocardioversion. After the admission to our hospital, because of previously mentioned symptoms, it was discovered that he had another VT episode (on bisoprolol) and was given amiodarone. Magnetic resonance imaging showed that the left ventricle (LV) had preserved contractility and unaltered output tract (ejection-fraction 66%), but the right ventricle (RV) was dilated and it presented with akinesia and dyskinesia in medio-apical parts of all of the walls. There was also an obstruction of the right outflow tract with thickening of infundibulum walls and dilation of the pulmonary trunk. Ejection-fraction of the RV was 32%. Multiple late gadolinium enhancement zones were seen in both RV and LV (example of ARVC with LV involvement). The patient's final diagnosis was Noonan syndrome which can include lentiginosities, electrocardiographic abnormalities, ocular hypertelorism, pulmonic stenosis, abnormal genitalia, retardation of growth, and sensorineural deafness (LEOPARD). An implantable cardioverter-defibrillator was placed on him to prevent any future malignant rhythms.

Conclusion: This case highlights the importance of ARVC, isolated or in the context of complex genetic syndromes like LEOPARD, as a cause of VT and sudden cardiac arrest in young patients.

Keywords: arrhythmogenic right ventricular dysplasia; Noonan syndrome; stroke volume

CR124

Presentation and diagnosis of an atypical variant of chronic inflammatory demyelinating polyneuropathy

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Introduction: Lewis-Sumner syndrome (LSS) is a rare acquired chronic inflammatory demyelinating polyneuropathy (CIDP) characterised by asymmetrical distal weakness of the upper or lower extremities and motor dysfunction with adult onset.

Case report: A 58-year-old male was admitted to the Department of Neurology of Clinical Centre of Osijek after electromyoneurography (EMNG) along with clinical presentation hinted at CIDP due to increased muscle weakness. He used to walk with a forearm crutch due to a foot injury during war, however, 8 months before admission, a progression of muscle weakness in the right arm to the level of not being able to hold a spoon was noticed. Cervical spine magnetic resonance imaging scan showed vertebrae deformities with minimal nerve pressure, without indication for surgical intervention. A prior EMNG showed weaker compensated C5-Th1 radiculopathy. 2 months beforehand, the same weakness in the left arm with muscle flickering was noted, without sensory deficiency. At admission, right arm plegia and severe left arm paresis with right arm muscle hypotrophy were present. Cerebrospinal fluid (CSF) analysis showed discrete proteinorachia, while further CSF analysis, tumour markers, and anti-GAD65 were negative. Lab results showed no significant results other than folic acid deficiency, like abdomen ultrasound and thoracic x-ray. Anti-GD1a antibodies came borderline positive. Intracellular and extracellular antibodies are in progress. Immunosuppressive therapy was introduced. He was released in an improved state with retaining moderate right-sided arm monoparesis, and physical rehabilitation with continuous immunosuppressive therapy was recommended.

Conclusion: As LSS is a chronic autoimmune disease, it is important to recognise and diagnose the disease so that immunosuppressive therapy and physical rehabilitation can try to improve the quality of life in affected patients.

Keywords: electromyography; paresis; polyneuropathies

CR125

One Flap, Two Areas: Chimeric Double Skin Paddle ALT Flap in Foot Reconstruction

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Introduction: High-voltage electrical burns result in significant deep thermal injuries and require complex management involving debridement and advanced reconstructive techniques. We present a case of complex full-thickness burns to two separate areas of the foot, reconstructed with a chimeric anterolateral thigh (ALT) flap with two skin paddles, and a full-thickness injury to the hand, reconstructed with a local Quaba flap.

Case report: A 38-year-old male patient presented with a high-voltage injury sustained while working on a railway line, resulting in entry and exit wounds on the right foot and hand. Initial management involved debridement and vacuum-assisted closure (VAC) dressing application. Subsequent surgical interventions included Integra and skin graft to the palm, a Quaba flap to the index finger for joint capsule coverage, and a chimeric ALT flap to the foot. The ALT flap was split into two skin paddles, made possible due to the presence of two skin perforators, enabling simultaneous reconstruction of multiple foot defects. Post-operatively, a gradual rehabilitation protocol involving foot positioning progression (dangling) was implemented.

Conclusion: The double skin paddle ALT flap not only significantly expands the applications of the classic ALT flap but surpasses its conventional limitations, offering a higher level of versatility in reconstructive surgery. By dividing the skin flap into two paddles, each with its own set of perforators, this procedure addresses challenges in covering larger and multiple defects while minimizing donor-site morbidity and optimizing aesthetic outcomes for both donor and recipient sites.

Keywords: Electric Burns; Foot Injuries; Free Tissue Flaps; Plastic Surgery Procedures

CR126

Non-traumatic subcapsular splenic rupture without changes in the blood count

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Introduction: A ruptured spleen is a medical emergency that is most often caused by injury. Non-traumatic splenic rupture is very uncommon, though it can be related to underlying pathologic conditions or may be idiopathic. Castleman disease (CD) is a rare lymphoproliferative disorder that causes enlarged lymph nodes, accompanied by a broad range of inflammatory symptoms and laboratory abnormalities.

Case report: A 41-year-old male presented to the emergency department Osijek complained of severe abdominal pain under the left rib cage. Leukocytes were slightly elevated ($13.8 \times 10^9/L$), but the rest of the blood count was normal. Then a radiogram of the thoracic organs and a native scan of the abdomen were done, which were also normal. Furthermore, two syncopes occurred, before and after the radiogram, after which an urgent computed tomography angiography of the aorta was performed. The aorta had normal width without dissection, but ascites was found along with the possibility of splenic rupture. The rupture occurred inside the capsule, which resulted in splenomegaly and no clear signs of splenic rupture in the blood count and radiology images. Syncopes occurred as part of hemorrhagic shock, and then he was referred for an urgent splenectomy. The diagnosis of CD was confirmed by the pathohistological diagnosis of the extirpated spleen. Further examinations revealed that a week ago he had symptoms of a respiratory infection with a body temperature up to 40°C.

Conclusion: Non-traumatic splenic rupture occurs very rarely. In addition, subcapsular rupture is even rarer and more difficult to diagnose. Although this is a spontaneous rupture, it is assumed to have occurred because of CD and infection.

Keywords: Shock, Hemorrhagic; Splenectomy; Splenic Rupture

CR127

Abdominal pedicle flap in a thumb reconstruction

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Introduction: Pedicle flaps are used in skin and soft tissue reconstruction, comprising all three skin layers. One of its distinctive features is carrying its blood supply, rendering these flaps crucial for reconstructing avascular structures, but also severe lesions with significant vascularity loss.

Case report: We present the case of a 52-year-old man hospitalized in August 2021 due to a laceration sustained while using a woodworking machine. It was localized on the palmar side of the left thumb extending from the thenar to the tip of the distal phalanx with a large skin defect. An X-ray of the left hand and preoperative treatment were performed. On the same day, under general anesthesia, debridement and the first act of the abdominal pedicle flap (APF) were performed; an APF (with length: base ratio of 3:1) was utilized to cover the defect, followed by immobilization. A sparing regimen, analgesics, and a seven-day combination of antibiotic therapy were prescribed. The first postoperative control showed a well-healed flap without complications. In September 2021, the second act of the APF was performed under general anesthesia; the flap was divided and detached from the abdomen, with the placement of sutures and debridement. The second postoperative control indicated proper recovery, with a dry and tidy wound, followed by stitches removal. In the end, the thumb functions properly after remodeling, even in terms of fine movements, including a pincer grip.

Conclusion: In conclusion, the APF proves effective in thumb reconstruction. The two-stage procedure; covers the defect initially with an APF, and afterwards dividing and separating it from the abdomen. In case of favorable indications, this approach, accompanied by well-conducted physical therapy, ensures proper postoperative hand function.

Keywords: Hand Deformities; Lacerations; Reconstructive Surgical Procedures; Surgical flaps

CR128

A revolution in burn injury treatment: a Spincare system

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Introduction: Burn is an injury to the tissue caused by heat, chemicals, electricity, or the sun. Treatment of the burn wound consists of pain control, cleaning and covering with dressing materials. When planning the management, feasibility, results, and cost should be considered. The aim of this case report is to introduce a new wound therapy approach, a Spincare system.

Case report: We present a 14-year-old girl burned with hot water while cooking. She arrived at the clinic the day after the accident. Physical examination revealed first and second degree burns on the lower abdomen, pubic region, the front of both upper legs and left foot. Patient had a walking difficulty due to pain. Firstly, the hydrofiber dressing with silver was applied. On the second day of hospitalisation, Spincare system was used to apply a customised skin-like matrix, followed by swaddling a wound with foam dressing. The application of "artificial skin" was repeated on sixth day. After seven days, she was discharged, and good hydration was recommended. Two weeks after the accident, the wound was healing properly and Spincare was applied only on the areas of secretion. The burn wound epithelialized completely after 16 days and there was no need for further treatment.

Conclusion: Burn management remains a challenge owing to slow wound healing, pain, infection, and scarring. Because of low cost-benefit ratio, bandages are not the best solution. However, Spincare prints a nanofibrous healing matrix which provides easy monitoring, excellent scarring and reduces risk of infection.

Keywords: artificial skin; bandages; burns

CR129

Scalp reconstruction with deep inferior epigastric perforator flap

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Introduction: Deep inferior epigastric perforator (DIEP) flap is a free flap harvested from the abdomen. In this procedure surgeons use skin and fatty tissue from the lower abdomen leaving the abdominal muscle intact. This flap is most commonly used for breast reconstruction. The aim of this article is to demonstrate that DIEP can also be utilized for head and neck reconstruction.

Case report: The 68-year-old female patient was referred to the clinic because of neglected squamous cell carcinoma of the left parietal part of the scalp. Computed tomography scan showed erosion of the cranial bone, with infiltration of the dura and the brain. Wide skin of the scalp resection together with neurosurgical left frontotemporal parietal craniectomy, and resection of affected dura was done. Fascia lata was used for watertight closure of the dura. Ipsilateral selective neck dissection and superficial parotidectomy due to metastasis was performed as well. Simultaneously with tumor resection free DIEP flap was raised from the lower abdomen and later anastomosed to the side branch of internal jugular vein and facial artery. Postoperative complications included sepsis and distal partial flap necrosis, requiring local debridement. Upon discharge, patient was stable with vital free flap and primary wound healing.

Conclusion: Although indications for DIEP flap in head and neck surgery are rare this flap has proven to be adequate method for managing large surface defects with minimal complications and relatively quick recovery.

Keywords: free tissue flaps; scalp; squamous cell carcinoma

CR130

Reconstruction of the Calvarial defect after Craniofacial Cancer resection using 3D printed cranial models and personalized cutting guides with TDAP microvascular flap

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Introduction: Thoracodorsal Artery Perforator flap (TDAP) is a fasciocutaneous flap based on the musculo-cutaneous perforators of the thoracodorsal artery, and can be used as an pedicled or free microvascular flap. Utilization of 3D-printing technology in the field of cranioplasty involving the reconstruction of cranial defects emerged as an advanced possibility of anatomical reshaping.

Case report: We present a 75-year-old male patient who had a history of the failed recurrent multiple cancer resection of the right ear, spreading through calvarial skin, temporal bone and dura mater. He was admitted to the Department of Maxillofacial Surgery after failed irradiation therapy due to a recurrent cancer. Imaging techniques of Computed Tomography as well as Magnetic Resonance Imaging were performed and it was decided that combined neurosurgical and facial resection is possible. The approximate location of the perforator is marked preoperatively using skin orientation points and Doppler trial. Preoperative personalized 3D cranial models and bone cutting guides were made. 3D-printing allows an excellent cranioplasty cosmesis achieved at a reasonable price without sacrificing patient outcomes. When the conditions for the surgical resection and reconstruction were met, surgery was performed and postoperative results were achieved. Complex defect of the skin and cranial bone with exposed brain was reconstructed with personalized Polymethyl Methacrylate implant and free microvascular TDAP fasciocutaneous flap.

Conclusion: The ability to create highly customized implants to patient-specific anatomies addresses the functional aspects of cranial defects and considers the psychological impact on patients. This technique requires thorough planning of treatment, personalized approach and precision medicine, hence causing less damage to the donor site and reducing surgical complications, as well as achieving improved aesthetic outcomes.

Keywords: cranioplasty; Polymethyl Methacrylate; pre-cision medicine

CR131

Rubinstein-Taybi syndrome: clinical and genetic features

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Introduction: Rubinstein-Taybi syndrome (RSTS) is a rare genetic disorder marked by growth restriction, distinctive dysmorphic features and varying degrees of intellectual disability. In most children it occurs as the result of a de novo gene mutation. Typically, it is caused by mutations in the CREBBP or EP300 genes. The aim was to present the clinical characteristics and the importance of genetic evaluation in diagnosing and guiding patient care.

Case report: We present a case of 21-month-old female child, born as a hypotrophic full-term newborn, without other perinatal risk factors and with an unremarkable family history. Her phenotype included broad and curved thumbs and big toes, fan-shaped fingers, single transverse palmar crease of the left palm, downslanting palpebral fissures, saddle nose, high-arched palate, mild microretrognathia, long philtrum, thin lips and rocker-bottom feet. She also had feeding difficulties requiring nasogastric tube feeding and gradually transitioning to bottle feeding. Additional evaluations revealed atrial septal defect type II and persistent Botalli ductus. Also, signs of potential future cardiomyopathy were noted, requiring ongoing monitoring. Brain ultrasound revealed agenesis of the corpus callosum. These clinical elements suggested the possibility of RSTS due to which genetic evaluation was performed. Karyotyping ruled out chromosomal abnormalities and the molecular karyotype was normal. Chromosomal exome sequencing (CES) further confirmed a premature translational stop signal in the CREBBP gene (p.Gln355Ter), a variant known in patients with RSTS, indicating its pathogenic clinical significance.

Conclusion: This case highlights the importance of understanding the clinical features of RSTS which include dysmorphic traits, cardiac abnormalities, and potential feeding difficulties. Comprehensive genetic evaluation is crucial in confirming the diagnosis and guiding multidisciplinary care.

Keywords: Congenital Abnormalities; Craniofacial Abnormalities; Rubinstein-Taybi Syndrome

CR132

Surgical Management of Squamous Cell Carcinoma of the Tongue: Integrating Radical Procedures and Advanced Reconstruction Techniques

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Introduction: The majority of oral malignancies arise from epithelial tissue, and squamous cell carcinoma is the predominant tumor type. This case report delves into the surgical intricacies and reconstruction techniques applied in a patient with this pathology.

Case report: We present a case of a 55-year-old man who presented to the ENT clinic due to a tumor process extending from the tip of the tongue. Tumor was staged using TNM classification system at T4aN2bM0 with the subsequent course of action involving surgical intervention. Incisions made during radical and selective neck dissections were extended to the chin and lower lip. A subperiosteal approach was taken to access the mandible, followed by marginal resection and swing osteotomy. The tumor resection involved subtotal glossectomy, preserving the left side of the tongue base. Due to suspicion of tumor infiltration, partial pharyngotomy was performed, sacrificing the hyoid bone body. The pharyngeal defect was reconstructed using a right pectoralis major muscle flap and the defect in the tongue and the floor of the oral cavity was reconstructed using a radial forearm free flap. The flap's artery was anastomosed with a. facialis, and the vein with truncus thyroloinguofacialis. The donor site defect on the forearm was reconstructed with a Thiersch graft taken from the thigh.

Conclusion: The presented case underscores the complexity of managing squamous cell carcinoma of the tongue. The successful application of surgical interventions, including meticulous dissection of lymph nodes and intricate flap reconstructions highlight the significance of tailored strategies in achieving optimal outcomes.

Keywords: free tissue flap; neck dissection; reconstructive surgical procedure; squamous cell carcinoma; tongue neoplasms

CR133

Squamoid eccrine ductal carcinoma of nasal and paranasal region – surgical excision and reconstruction: a case report

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Introduction: Squamoid eccrine ductal carcinoma is a rare subtype of eccrine carcinoma with both squamoid and adnexal ductal differentiation. Since it is a very rare tumor, it is often misdiagnosed as squamous cell carcinoma upon biopsy. There is little research on the treatment of this type of carcinoma, but clinical experience suggests surgical excision with clear margins.

Case report: An 80-year-old female patient presented with a lesion of the nose and left paranasal region and numbness at the root of the nose and the upper left eyelid. On examination, a 1x1.5 cm subcutaneous skin induration was observed by the left side of the nose, 1 cm beneath the left medial canthus. An incisional biopsy was performed, resulting in an inconclusive patho-histological diagnosis: a poorly differentiated squamoid cell carcinoma or an adnexal carcinoma with squamoid differentiation. Subsequently, surgery was performed, a wide resection of the tumor, followed by reconstruction using a forehead flap and a cheek advancement flap. Histopathological examinations confirmed the tumor as a squamoid eccrine ductal carcinoma with perineural and perivascular invasion, and clear margins (<1 mm). The postoperative course was without complications and the patient was referred to radiotherapy. 1.5 years later, the disease relapsed.

Conclusion: Squamoid eccrine ductal carcinoma is a rare type of skin carcinoma. Due to its higher aggressiveness, it is important to differentiate it from squamous cell carcinoma. Large facial defects resulting from the excision of skin tumors can be reconstructed using a combination of local flaps.

Keywords: Ductal Carcinoma; Surgical Flaps; Sweat Gland Neoplasms

CR134

Secondary breast angiosarcoma in a patient with previous radiotherapy exposure: a case report

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Introduction: Breast angiosarcoma accounts for 0.04% of all breast malignancies and has a poor prognosis. Secondary breast angiosarcoma usually presents in older women with a history of previous breast cancers treated with radiotherapy. This case report aims to present a patient with this rare breast malignancy and to emphasize the importance of early detection and treatment of angiosarcoma.

Case report: A 75-year-old woman presents for an elective left breast mastectomy as indicated by the diagnosis of left breast angiosarcoma. Two and a half years before the mastectomy, an ultrasound diagnosis discovered a cystic mass in her left breast. Eleven months before the surgery, a clinical examination discovered a skin thickening in the lower left quadrant. A subsequent multi-slice computed tomography scan identified a tumor mass in her left breast. Pathohistological diagnosis of a tumor biopsy revealed a high-grade angiosarcoma. The patient undergoes a left breast mastectomy and reconstruction with a Thiersch graft originating from her anterior right thigh. The patient recovers from the surgery with no complications. Ten years before the mastectomy, she was diagnosed with a left breast carcinoma and metastases in left axillary lymph nodes for which she received neoadjuvant chemotherapy, underwent left breast quadrantectomy and dissection of the left axillary lymph nodes, and received adjuvant radiotherapy.

Conclusion: Due to the low incidence of breast angiosarcoma and its poor prognosis, identification of the risk factors, early diagnosis and treatment are essential for the best possible outcome.

Keywords: breast; hemangiosarcoma; mastectomy; radiotherapy

CR135

Reconstruction of inferior canalicular laceration – a case reportLeon Perić¹; Alina Boris²; Patricia Reisz-Majčić¹*1 - Clinical Hospital Centre Osijek, Clinic for Eye Diseases, Osijek, Croatia**2 - Faculty of Medicine Osijek, University of J.J. Strossmayer, Osijek, Croatia*

Introduction: Canalicular lacerations are relatively commonly seen in ophthalmologic practice and are often associated with open injuries of the eyelids or as a result of indirect trauma of the eyelids. The most significant location of injury of the lacrimal pathway is injury of the lower canaliculus, considering that most of the tears drain right through it.

Case report: Hereby we present a case of a 74-year-old patient who fell on the edge of his bed the night before arriving at the Clinic and hit his head in the region of the right eye. During the clinical examination, a contused lacerated wound of the lower eyelid with laceration of the lower canaliculus is described. Findings on the biomicroscope and fundus examination were normal and without significant new pathology. Reconstruction of the lower right eyelid and inferior canaliculus was performed under general anesthesia a few hours after admission to the Clinic. A self-stabilized silicone implant was placed through the upper and lower lacrimal canaliculi, which will remain for at least 3 months with the aim of maintaining patency and preventing stenosis of the lacrimal tract.

Conclusion: The latest studies suggest that management of inferior canaliculus laceration is superior to delayed reconstruction. If the reconstruction of the lower canaliculus is performed within 24-48 hours after trauma of the canaliculus, we can expect better tear drainage results in the patient, faster recovery as well as better aesthetic results.

Keywords: Eyelids; Lacrimal ducts; Ophthalmology; Reconstructive Surgery

CR136

Longitudinal extensive transverse myelitis as a result of acute West Nile virus infectionMarija Pešikan¹; Leon Davidović¹; Matija Peić¹; Karla Trampus¹; Svetlana Tomić^{1,2}*1 - Faculty of Medicine, University of Josip Juraj Strossmayer, Osijek, Croatia**2 - Department of Neurology, Clinical Hospital Centre Osijek, Osijek, Croatia*

Introduction: Longitudinal extensive transverse myelitis (LETM) is a rare neurological disorder characterized by significant inflammation along the spinal cord, spanning multiple vertebral levels. It often leads to motor, sensory deficits, and functional impairment.

Case report: 44-year-old patient was admitted to Department of Neurosurgery with acute onset flaccid paraparesis. Patient complained of constant back pain and partial inability to move his legs. During hospitalisation, magnetic resonance imaging (MRI) scan of the thoracic spine was performed which showed signs of extensive transverse myelitis reg. Th9-L1. Lumbar puncture (LP) was indicated and patient was transferred to Department of Neurology. On admission, patient became febrile (39,5°C) and experienced decreased psychomotor function. LP revealed clear colour, presence of leukocytes and an increased level of proteins, glucose, chloride and lactate acid. Microscopic cerebrospinal fluid (CSF) examination showed lymphocytic pleocytosis (88% lymphocytes). Patient was firstly treated with broad spectrum antibiotics (ceftriaxone, doxycycline), antivirals (acyclovir) and pulsatile corticosteroid therapy. Serology tests revealed West Nile virus (WNV) specific antibodies in serum and CSF. Infectologists were consulted and therapy was modified; antibiotics and antivirals were excluded from therapy, and corticosteroids were combined with a course of intravenous immunoglobulins. Patient reported improvement of psychomotor function, but flaccid paraparesis persisted. Electromyoneurography was thus performed and it showed lesions of anterior horn cells in thoracic region of spinal cord. This, combined with positive serology tests for WNV confirmed diagnosis of West Nile myelitis.

Conclusion: In patients with LETM it is important to think about possible WNV infection.

Keywords: myelitis; paraparesis; West Nile virus

CR137

Reconstruction of the nasal alar defect with a radial forearm free flap (RFFF) and costal cartilage using 3D technology

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Introduction: Radial forearm free flap (RFFF) is procedure that is most commonly used for microvascular reconstruction of the oral or pharyngeal lining and cutaneous defects on head and neck. The aim of this article is to show how 3D technology can be used for planning construction of artificial template which is used for modeling of the soft tissue flap.

Case report: A 32-year-old female patient presented to the clinic for an examination of a growing skin lesion on the right nasal ala. Multiple biopsies showed chronic inflammation but due to aggressive growth complete excision of the nasal lesion was performed and sent for histopathological analysis. The analysis revealed squamous cell carcinoma. Before reconstructive surgery, a template for flap folding was created using 3D technology. The reconstruction of the right nasal ala defect was approached using a RFFF and costal cartilage. Initially, a free flap was harvested from the left forearm, and costal cartilage was obtained through an inframammary approach. The flap was folded to reconstruct the nasal mucosa and external contour of the nose with the assistance of a 3D model. Costal cartilage was placed subcutaneously within the flap. The postoperative course was uneventful and the patient, in good overall condition, was discharged for home care.

Conclusion: The reconstruction of complex nasal defect with a RFFF and costal cartilage with the aid of 3D technology printed templates proved to be an adequate and precise method resulting in pleasing esthetic and functional result.

Keywords: costal cartilage; free tissue flaps; squamous cell carcinoma; three-dimensional imaging

CR138

Myxoinflammatory fibroblastic sarcoma of the hand

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Introduction: Myxoinflammatory fibroblastic sarcoma (MIFS), an extremely rare tumor, is a low-grade subcutaneous soft tissue sarcoma. Because of its benign appearance on clinical examination and generally under recognised features, it is often misdiagnosed and poorly treated. We present a case of aggressive presentation of this rare tumor.

Case report: A 65-year-old woman noticed a mass on the dorsum of the right hand in the projection of the third metacarpal bone a year ago, which increased over time. Ultrasound guided cytological puncture was performed indicating a mesenchymal tumor. Magnetic resonance imaging showed limited soft tissue formation above the third metacarpal (MC) bone. After extripation of the tumor, pathohistological findings were in favor of aggressive myxoinflammatory fibroblastic sarcoma gradus II. That required a wide resection of the tumor because of its close connection to the third and the fourth MC bone. Amputation of both III and IV ray was performed. A local skin flap was made to cover the defect. After successful healing, the patient underwent physical therapy and was also referred to an oncologist. Computed tomography scan of the thorax and abdomen ruled out the spread of the disease. The patient has good hand function with a satisfactory aesthetic result.

Conclusion: Although being extremely rare, early detection and wide surgical resection is key to successful treatment of MIFS. It is crucial to consider MIFS as a differential diagnosis in patients with a slowly growing, painless mass at acral and dorsal soft tissue localizations such as wrist, hand, foot and ankle.

Keywords: Fibrosarcoma; Hand; Myxosarcoma; Soft Tissue Neoplasms ; Surgical Procedures, Operative

CR139

Extramedullary plasmacytoma of the orbit as a relapse of multiple myeloma

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Introduction: Multiple myeloma is a malignant disease in which monoclonal plasma cells proliferate in bone marrow. Relapse of multiple myeloma may present as extramedullary plasmacytoma, however orbital involvement is extremely rare. The aim of this abstract is to report one such case.

Case report: An 82-year-old female patient presented with exophthalmos of the right eye and diplopia. One year prior the patient was diagnosed with multiple myeloma (the IgG serum concentration was 27.2 g/L and the bone marrow plasma cell concentration was 22%). She was treated with cyclophosphamide, bortezomib and dexamethasone (CyBorD) as well as bisphosphonates. After completing eight cycles of CyBorD protocol, partial remission of the disease was verified (the bone marrow plasma cell concentration was reduced to 6%). Bortezomib was continued as a maintenance therapy. A few days after the last dose of bortezomib the patient presented with redness and proptosis of the right eye. A computed tomography (CT) of the orbit showed intensely contrasted tumour, 3,5 cm in diameter. Bone destruction and invasion of the cranial cavity were detected as well. Cytological puncture and immunophenotyping confirmed plasmacytoma. Bone marrow aspiration showed a stable plasma cell percentage of 6%. Since the previous therapy was CyBorD protocol, the patient was started on daratumumab, lenalidomide and dexamethasone (DRd). After consulting an oncologist, radiotherapy of right orbit was added to the treatment. Four months later magnetic resonance imaging of the orbit showed significant regression of tumour.

Conclusion: We have decided to report this case in order to highlight the uncommon presentation of multiple myeloma relapse. It is important that physicians suspect and recognise extramedullary plasmacytoma in patients with history of multiple myeloma.

Keywords: Exophthalmos; Multiple myeloma; Plasmacytoma

CR140

Drug-induced liver injury (DILI) due to anabolic steroid use

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Introduction: Anabolic-androgenic steroids (AAS) are synthetic compounds that resemble the male hormone testosterone and have an anabolic and androgenic effect. Since the liver is the primary site of steroid clearance, DILI has been one of the major concerns regarding AASs abuse. DILI presents as a broad spectrum of clinical findings which can range from a mild elevation in liver enzymes to fulminant liver failure. The primary goal is to identify DILI early and to withdraw the offending agent as soon as possible to prevent further injury.

Case report: We present a case of a 31-year-old male with drug induced liver injury. In July of 2023, patient presents himself in emergency department with jaundice and pruritus lasting for week. His associated signs included pale stools and dark urine. Anamnesis revealed use of both injectable and oral AAS. Laboratory tests indicated both hepatotoxicity (elevated liver enzymes) and cholestasis (hyperbilirubinemia) requiring immediate hospitalization. Computerized tomography and ultrasound revealed hepatomegaly with otherwise unremarkable findings. Conservative management, which included prednisone and ursodiol, was unsuccessful in reducing bilirubin levels which led to epicrisis. Therefore, plasmapheresis was indicated and performed in several occasions leading to partial reduce of bilirubin levels. As a precaution, he was transferred to KBC Zagreb which continued same therapy that led to further decrease of bilirubin levels and stabilization of other parameters.

Conclusion: AAS can potentially cause a multitude of negative effects on the liver. Most side effects from steroid use eventually improve with cessation of use, but occasionally severe effects can remain. Early diagnosis of this condition is crucial given that conservative management with early cessation of AAS can lead to recovery, although it can be prolonged.

Keywords: androgenic anabolic steroids; hyperbilirubinemia; liver failure

CR141

A rare presentation of Leiomyosarcoma metastasis to the cervical spine: a case report

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Introduction: Leiomyosarcoma (LMS) is a rare and aggressive form of soft tissue sarcoma most commonly found in the uterus, gastrointestinal system and retroperitoneum. LMS has an irregular presentation, remaining silent for a long time and making its recurrence years after. Frequent sites of metastasis include the lungs, liver, kidneys etc. However, metastasis to the cervical spine are extremely rare, with only one reported clinical case.

Case report: A 63 – year – old female patient was admitted to the Department of Neurosurgery due to right – sided radiculopathy, lasting more than one month prior to admission. She previously underwent two surgical procedures: anterior cervical fusion and fixation at the C5-C7 segments in 2005 and resection of a retroperitoneal tumor in 2021, which was later confirmed as LMS. Magnetic resonance imaging (MRI) detected a right-sided mass at the C5 vertebrae. Resection of the tumor was performed via posterior cervical approach. Pathohistological examination later confirmed metastasis of LMS: tumor cells were immunohistochemically positive for smooth muscle actin (SMA), muscle-specific actin (MSA) and desmin; marker CD34 was negative. Follow – up MRI scans one month and six months after surgery showed no residual tumor. Postoperative electromyography revealed a chronic neurogenic lesion of nerve roots C6 and C7 bilaterally as a consequence of earlier degenerative changes and surgical treatment; it remained completely unchanged in comparison to preoperative assessment. Multidisciplinary team put forward a 4-week adjuvant oncological treatment (Docetaxel, Gemcitabine) alongside physical rehabilitation. There was complete regression of initial complaints.

Conclusion: Tumor resection is the treatment of choice for patients with metastatic LMS, including multi-disciplinary treatment. The prognosis remains fickle due to its resectability and existence of metastasis, despite aggressive treatment.

Keywords: leiomyosarcoma; neoplasm metastasis; spine; radiculopathy

CR142

An unusual clinical presentation of Merkel cell carcinoma: a case report

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Introduction: Merkel cell carcinoma (MCC) is a rare and aggressive primary cutaneous neuroendocrine carcinoma that mainly affects regions exposed to solar radiation. It is characterized by a high frequency of local recurrence, regional nodal metastasis, distant metastasis, and a low survival rate. Typically, the primary cancer is a fast-growing, painless, reddish nodule with an iceberg-like effect, broadening in the depth.

Case report: We report a case of a 73-year-old woman with a history of hypertension and atrial fibrillation. She had a painful walnut-sized nodule on her right gluteal region and was initially diagnosed by an emergency medicine doctor as a gluteal abscess. One month after the incision and pus and hematoma drainage, she came to the plastic surgery office where the fine needle aspiration cytology (FNAC) was performed. At the time she presented with a painful, fast-growing (71 x 58 x 59 mm), ulcerated mass on her right gluteal region. The immunohistochemistry findings suggested poorly differentiated malignant neoplasm. The excisional biopsy was performed and following pathohistological analysis revealed a diagnosis of MCC. Computed tomography (CT) of the chest, abdomen, and pelvis showed no distant metastases. A large surgical excision, defect reconstruction and sentinel lymph node biopsy were performed followed by radiotherapy. In the 10 months following the surgery, the patient was monitored and showed no signs of disease recurrence, but unfortunately died from unrelated cardiac failure.

Conclusion: While MCC usually arises in sun-exposed regions, clinically rather inconspicuous nodules can occur on the trunk and buttocks, making the diagnosis challenging. Taking this into consideration, physicians should consider MCC as a differential diagnosis when encountering a fast-growing and painless lesion because early diagnosis and treatment may improve patient survival rates.

Keywords: biopsy; buttocks; carcinoma; Merkel cell; radiotherapy

CR143

Latissimus dorsi flap for skin tumor with severe anemia and cachexia

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Introduction: Skin tumors, frequently encountered in clinical practice, can progress to severe complications if timely intervention is not undertaken. The latissimus dorsi flap is considered one of the preferred methods for treatment. The aim of this case report is to highlight the successful management of skin tumors, emphasizing the importance of choosing the right therapeutic approach.

Case report: We present the case of a 53-year-old patient with a massive skin tumor over the right clavicle, which had been growing for seven years, but aggressively expanded in the last ten months. The patient sought medical attention not due to the tumor's size but because of profound weakness and severe cachexia. The tumor had been bleeding for years, resulting in a shockingly low hemoglobin level of 14 g/L, almost incompatible with life, which is a real medical pheno-menon. An MSCT (multi-slice computed tomography) of the thorax and abdomen showed no metastases, unusual given the tumor's size and longevity. The surgery entailed excising a tumor with shallow subcutaneous infiltration. Then, a latissimus dorsi flap reconstruction was performed, transferring a skin-muscle flap from the right latissimus to the excision site. Negative lymph nodes were also extracted from the right axilla. The flap adhered well, the wounds healed effectively and the patient's condition improved.

Conclusion: With the right surgical method, even large tumors can be successfully removed. The latissimus dorsi flap method proves highly effective in managing large skin tumors, offering a pathway to significant recovery when applied with surgical precision and expertise.

Keywords: cachexia; hemoglobin; tumor

CR144

Normotensive glaucoma with an onset in a young male patient - case report

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Introduction: Glaucoma, a progressive optic neuropathy, leads to nerve fiber degeneration and visual field (VF) defects. Normotensive glaucoma is a subtype of primary open-angle glaucoma with standard intraocular pressure (IOP) values (10-21 mmHg).

Case report: A 29-year-old noticed parts of visual field loss in the left eye. Patient wore glasses from the age of twelve and had no family history of glaucoma. Myopia, astigmatism, and visual acuity with correction 1.0/1.0 were observed. Biomicroscopy was proper, bilaterally optic nerve excavation was 0.4/0.4, with a 'notching' impression on the left eye. IOP was 18.5/12.5 mmHg. Pachymetry was 585/598 µm. IOP values were adjusted (-3.0/-4.0 mmHg). Gonioscopy revealed open iridocorneal angles (grade 4, pigment I-II). Macular optical coherence tomography (OCT) showed ganglion cell layer defects in the left, while OCT of retinal nerve fiber layer indicated borderline thinning temporally on the right and significant thinning inferiorly with borderline thinning temporally on the left. A milder arcuate decrease in retinal sensitivity in the upper quadrant is recorded on the right VF, and an arcuate decrease in the upper quadrant and a deeper defect in the nasal margin is found on the left. Treatment included local antiglaucoma therapy (0.5% timolol, 2x/day) and spectacles. The patient was discharged with a recommendation for VF and OCT control in four months.

Conclusion: This case highlights the importance of early glaucoma diagnosis and intervention. Prompt recognition and appropriate measures help mitigate disease progression, preserving patient's quality of life.

Keywords: Glaucoma; Intraocular Pressure; Myopia; Tomography

CR145

Mixed adenoneuroendocrine carcinoma of the stomach with associated unusual histologic findings

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Introduction: Mixed adenoneuroendocrine carcinoma (MANEC) is a rare tumor of the gastrointestinal tract involving both epithelial and neuroendocrine components. Due to the low frequency of this histologic type, only a few cases have been described.

Case report: We present a case of 74-year-old female patient who presented with microcytic anemia. The patient underwent a gastroscopy in October 2023, and ulcerated lesion in antrum of the stomach was detected and biopsy sample was taken. Histology revealed gastric adenocarcinoma. A near total laparoscopic gastrectomy was performed in January 2024. Gross examination of the surgical specimen revealed a 30 mm × 18 mm ulcerated tumor that invaded the gastric wall. Histo-pathological examination of the surgical specimen confirmed tumor infiltration of mucosa, submucosa, muscularis and subserosa. The tumor architecture was consisting of clusters of glandular cells, marked by Cytokeratin AE1 / AE3, and clusters of cells with endo-crine morphology, marked by synaptophysin and chromogranin, consistent with diagnosis of MANEC. In adjacent mucosa, additional unusual finding were observed. Another tumor was found, composed of nests of cells with endocrine morphology, with low proliferation index (Ki-67 < 2%), consistent with diagnosis of neuro-endocrine tumor grade 1. Also, area with granulomas, with central caseous necrosis was found.

Conclusion: MANEC tumors are highly aggressive tumors, and due to their rarity, are not well described in the medical literature; therefore, additional case reports and systematic reviews are needed.

Keywords: Gastrointestinal neoplasms; neuroendocrine tumors; stomach

CR146

Congenital facial nevus: excision and reconstruction in a 40-year-old patient

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Introduction: A congenital pigmented nevus is a birthmark that can vary in size, ranging from small to medium or even giant. The irregular surface, brown to black pigmentation, and presence of hairs make it difficult to distinguish from melanoma, which can be found in 4.9% of medium-sized lesions. Serial elliptical excision and primary closure in the direction of minimal tension lines of the face are the most common methods of defect reconstruction. Local flaps, especially the rotational flap of the face, effectively reconstruct larger defects by strategically placing incisions within minimal tension lines for optimal functional and aesthetic results.

Case report: A 40-year-old woman sought removal of a medium-sized congenital nevus on the right side of her face for aesthetic reasons at the maxillofacial surgery department. The nevus measured 60 × 30 mm, it was brown pigmented, partially covered with hair. The patient wanted immediate removal, so she declined the offered serial excision. The surgeon opted for excision and immediate reconstruction of the defect with a local flap, closing the facial defect with skin in front of the ear, while the skin behind the ear closed the defect left by the taken flap. Aesthetically, this may not be the most perfect solution, but it is one of the therapeutic and reconstructive options.

Conclusion: The specificity of this case presentation stems from the patient's midlife decision to undergo total excision and immediate defect reconstruction, despite other therapeutic options being available. Through the presented follow-up photos, there is a remarkably good adaptation of the preauricular skin flap and a good response in terms of a gradually less visible scar over time.

Keywords: melanoma; nevus; reconstructive surgery

CR147

Treatment of the schwannoma of the big toe resilient to regional anesthesia- a case report

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Introduction: Schwannomas are benign neoplasms arising from the myelin-producing Schwann cells of the nerve sheaths. They are usually solitary, well-circumscribed formations localized in the head and neck region. Rarely, they may occur on other sites or in the form of multiple lesions associated with genetic disorders such as neurofibromatosis. This report aims to present a treatment of a patient with schwannoma of the big toe unaffected by regional anesthesia.

Case report: A 46-year-old woman was initially examined due to thickening and palpable tenderness on the lateral aspect of the distal phalanx of the right foot's big toe. Ultrasound and magnetic resonance imaging revealed a subcutaneous soft tissue tumor resembling the rare glomus tumors of the autonomic nervous system specific to that localization. The patient underwent surgery, during which regional anesthesia was initially applied to the popliteal region, therefore anesthetizing the foot. Prior to the skin incision the foot was tested for anesthetic effect by pinching the skin with a tweezer. The entire foot was anesthetized except for the tumorous area, necessitating the conversion to general anesthesia. A well-circumscribed tumorous formation was identified in the subcutaneous tissue, easily separated from the surrounding tissue, and completely excised. Histopathological analysis revealed the diagnosis of a schwannoma. The postoperative period was uneventful and the patient recovered completely.

Conclusion: The foot is an uncommon localization for Schwannomas. The fact that the area of the tumor does not respond to regional anesthesia could intraoperatively raise suspicion of a Schwannoma, even when it is in a nonspecific location.

Keywords: Anesthesia; Nervous System Neoplasms; Toe

CR148

Successful treatment of spinal muscular atrophy type III with risdiplam in an elderly patient

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Introduction: Spinal muscular atrophy (SMA) is a hereditary disease affecting lower motor neurons, caused by homozygous deletion of the SMN1 gene which encodes SMN protein involved in motor neuron survival. Each individual possesses a varied copy number of backup (SMN2) genes. The disease clinically presents with muscle atrophy and weakness. Based on the age of onset and achieved motor milestones, SMA is subdivided into four types. Standardized motor scales such as RHS (Revised Hammersmith Scale) and RULM (Revised Upper Limb Module) are used in clinical practice to quantify motor function.

Case report: We present a 68-year-old female patient suffering from SMA type III confirmed by genetic testing, whose symptoms first developed at the age of three. Throughout the years she continuously lost motor function, ultimately presenting with predominant shoulder girdle muscle weakness, and she was only able to walk with assistance. Before starting the treatment, her motor scales were RHS 20/69, RULM 31/43. In 2022 risdiplam, an ribonucleic acid (RNA) splicing modulator which increases the quantities of SMN protein by targeting SMN2 was registered in Croatia for SMA treatment, and the patient has been taking 5 mg daily since January 2022. No adverse effects have been reported so far. Motor function evaluation performed every six months has objectified a significant motor function improvement. In 2023 the results stand at RHS 26/69 and RULM 38/43, alongside the ability to walk independently for 10m.

Conclusion: The natural course of SMA includes disease progression. Treatment with risdiplam has, in this case, not only stopped, but significantly improved the symptoms and life quality in an older patient with a life-long disease and no previous specific pharmacological therapy.

Keywords: neurology; neuromuscular diseases; risdiplam; spinal muscular atrophy

CR149

Frontal pneumocephalus after head trauma in a traffic accident

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Introduction: Pneumocephalus (pneumatocoele or intracranial aereocele) is defined as the presence of air in the epidural, subdural, or subarachnoid space within the brain parenchyma or ventricular cavities. It is most commonly caused by trauma, but can also be of congenital, infectious, neoplastic, iatrogenic or spontaneous origin. The aim of this case report is to show appropriate procedure in case of suspected pneumocephalus.

Case report: We present a case of a 32-year-old man who received multiple injuries of the head, abdomen, pelvis and femur during a vehicle collision. CT showed viscerocranial and cranial floor fractures, and frontal pneumocephalus. After release, the patient reported double vision, headache and intermittent leakage of clear fluid from the nose. Later, MRI showed 2 cranial pneumocysts on the left frontobasal and supraorbital side. 2 months after the incident, the patient was hospitalized again and received antibiotic treatment for suspected meningitis. Skull base reconstruction was performed combined with resection of the left arteria temporalis superficialis aneurysm. Postoperatively, the patient had stable vital functions and was released.

Conclusion: Pneumocephalus is a rare complication of head injury, reported in 0.5-1% of cases. It typically presents as fluid leakage from the nose, eye palsy, headache after head trauma, as is the case in this patient. It is a treatable condition that can be complicated by infection, seizures and brain herniation, so any suspicion of the disease should be promptly treated.

Keywords: Aneurysm; Cerebrospinal Fluid Rhinorrhea; Craniocerebral Trauma; Headache; Skull Base

CR150

Undifferentiated tumor with epithelioid morphology in young woman with Myelodysplastic syndrome

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Introduction: The myelodysplastic syndrome (MDS) is a group of clonal hematopoietic stem cell disorders characterized with peripheral cytopenia, dysplastic hematopoietic progenitor cells, hypercellular or hypocellular bone marrow leading to ineffective and dysplastic hematopoiesis. Undifferentiated tumors with epithelioid morphology form heterogeneous as well as rare groups of tumors with overlapping morphology and therefore represent major diagnostic problems.

Case report: We present a 42-years-old female patient diagnosed with MDS, subgroup Refractory Anaemia with Excess Blasts (MDS RAEB I.) with International Prognostic Scoring System (IPSS) 0.5 and World Health Organization Classification-based Prognostic Scoring System (WPSS) 3. Treatment included occasional blood transfusion, leading to secondary hemochromatosis, managed with iron-chelating agent deferasirox. Ten years after the diagnosis patient reported severe pain in the thoracolumbar region followed by paraparesis and urine retention. Magnetic resonance imaging (MRI) showed circumferential epidural tumor infiltration of spinal cavity with bilateral progression to neural foramina and paravertebral musculature, osteolytic bone lesions in vertebral bodies (T3/4-L5), L1 body compression fracture. Multislice Computed Tomography (MSCT) of thorax, abdomen and pelvis showed enlarged lymph nodes. Biopsy of crista iliaca posterior, and Computed Tomography (CT) guided biopsy of psoas muscle showed undifferentiated atypical tumor cells with epithelioid morphology with negative immunohistochemistry markers of rhabdomyoblasts or smooth muscle differentiation.

Conclusion: MDS is primarily a disease of the elderly with a median age of 71. Despite various known gene mutations in elderly, there is poor evidence of MDS-related mutations in young adults. The question is whether solid cancer diagnosis is directly linked to MDS gene mutations. Further research in this field is warranted so better treatment strategies could develop.

Keywords: Mutation; Myelodysplastic Myeloproliferative Diseases; Neoplasms

CR151

Acute upper limb ischemia caused by arterial thoracic outlet syndrome: A case report

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Introduction: Thoracic outlet syndrome (TOS) comprises a group of disorders caused by compression of the brachial plexus, the subclavian artery or subclavian vein in the thoracic outlet region. Arterial TOS is the least common type, accounting for 1 % of cases. Risk factors include cervical rib, female gender, age 20-50 and repetitive overhead arm motion.

Case report: A 39-year-old woman was admitted to the Vascular surgery ward due to recurrent right arm thromboembolism which required further investigation. Right axillary artery embolectomy using a Fogarty catheter was done a month before. Recently she increased her physical activity which included intensive overhead shoulder movements. She complained of right arm pallor, tingling and numbness. Physical examination revealed difference in right arm temperature and mild loss of sensation. Upper extremity arterial pulses in right side were poor in comparison with the left side. Adson's test was positive. Soon afterwards patient underwent another emergent right axillary embolectomy followed by brachial artery embolectomy. Computed tomography (CT) angiography was indicative for right post stenotic subclavian artery aneurysm (16mm in diameter) due to cervical rib compression. Magnetic resonance imaging (MRI) confirmed TOS. Additionally, she developed left forearm cellulitis so decompressive surgical intervention had to be postponed after completing vancomycin therapy. Significant improvement with symptoms resolution ensued postoperatively.

Conclusion: Arterial TOS is a rare cause of upper limb ischemia. In the presence of severe ischemia, embolectomy and surgical thoracic outlet decompression are usually required. Occasionally, arterial reconstruction may be needed. Proper diagnosis and timely manner treatment are essential in order to avoid development of life-threatening complications.

Keywords: embolectomy; subclavian artery; thoracic outlet syndrome

CR152

Unusual case of a patient with epistaxis as a first symptom of pituitary tumor extending into the nasal cavity

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Introduction: Pituitary adenomas, tumors of the anterior pituitary, are classified by size or cell of origin and usually present as a sellar mass with suprasellar or parasellar extension. Initial symptoms range from mass effect-related issues to hormone hypersecretion. Uncommonly, pituitary adenomas may extend intranasally, mimicking nasal polyps or nasopharyngeal cancer.

Case report: A 50-year-old patient with epistaxis and high blood pressure (170/110 mmHg) presented to the emergency room. Subsequently she stated unilateral nose obstruction and received nasal corticosteroids. A few months later, recurrent unilateral epistaxis and nasal obstruction prompted endoscopic procedure, revealing nasal polyp in the right nasal cavity. Biopsy results showed pituitary adenoma with mixed somatotropic-lactotropic cells. Computed tomography scan indicated a 4x6cm tumor in sella turcica invading cavernous sinus, entirely occupying sphenoid sinus, protruding into right nasal cavity, completely filling out its posterior part. Endocrinologic examination showed elevated levels of prolactin and Insulin-like growth factor 1. Endoscopic transnasal transsphenoidal surgery enabled tumor resection, but caused diabetes insipidus and hypopituitarism. Postoperative hormone supplementation was administered. A one-year follow-up Magnetic Resonance Imaging scan detected residual adenoma, but the asymptomatic patient is being monitored through regular check-ups.

Conclusion: A pituitary tumor causing rhinologic symptoms is highly unusual. While up to 2% of pituitary tumors may have an infrasellar extension, only few erode the sphenoid sinus floor to enter nasopharynx and nasal cavity, mimicking nasal polyps. Previously published cases highlight the challenge in initial diagnosis, drawing attention to the significance of radiological imaging. Misdiagnosis consequences can be remarkable, emphasizing the importance of expanding the differential diagnosis.

Keywords: Epistaxis; Nasal Obstruction; Pituitary Neoplasms

CR153

Cleidocranial dysplasia: "Stranger things" on CT and X-Ray imaging

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Introduction: Cleidocranial dysplasia (CCD), a rare congenital condition, presents as multiple skeletal anomalies such as partial or complete absence of clavicles, delayed fontanelle closure with open sutures, and the presence of multiple Wormian bones. Oral signs include delayed exfoliation, failed eruption of permanent teeth alongside extra ones, protruding mandible, and mid-face retrusion. This unique pathology is also present in a cast member of "Stranger things" Gaten Matarazzo, and since he appeared on the show, a tremendous increase in awareness of the condition has been noted.

Case report: We report a CCD (Scheuthauer-Marie-Sainton's syndrome) case in a 12-year-old boy with concerns of unerupted permanent teeth, confirmed through radiological tests. Upon examination, he appeared short in stature with a normal weight for his age. Further assessment revealed specific physical features such as a brachycephalic skull, frontal bossing, wide-set eyes (hypertelorism), and sloping shoulders. His facial symmetry appeared normal, but there were deficiencies in the midface, a concave profile, and well-proportioned lips. CT and X-ray showed widened sutures, open anterior fontanel, Wormian bones, persistence of the metopic suture, bumpy appearance of the frontal and parietal bone with a cephalic index calculated at 0.87, supernumerary and crowded appearance of the teeth, underdeveloped clavicular bones and a chest shaped like a funnel, confirming the diagnosis.

Conclusion: Main challenge in managing CCD is early diagnosis. Therefore, every pediatrician, maxillofacial or plastic surgeon and radiologist should be aware of the condition.

Keywords: Cleidocranial dysplasia; CT; X-Ray; Stranger things

CR154

Singapore flap procedure for vaginal reconstruction following radical vulvectomy due to recurrent vulvar squamous cell carcinoma

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Introduction: Radical vulvectomy is a surgical procedure to remove the whole vulva. Its main indication is invasive vulvar squamous cell carcinoma. After a successful vulvectomy, the patient undergoes a vaginal reconstruction procedure for which flap reconstructions can be used - live tissue is taken from one part of the body and moved to another. One of these methods is the Singapore flap reconstruction.

Case report: A 47-year-old woman was diagnosed with vulvar carcinoma and treated with radiotherapy 2 years ago, unsuccessfully. The patient developed a recurrent vulvar squamous cell carcinoma which spread laterally, reaching the groins on both sides. Before the procedure, the patient received antibiotic and thrombotic prophylaxis. After a radical vulvectomy was performed, the chosen method for vaginal reconstruction was the Singapore flap. The flap is raised from the tissue lateral to the labia majora, based posteriorly and transposed medially, redirecting the internal pudendal neurovascular supply to the damaged area. The reconstruction was successful despite the extent of the procedure and postoperative recovery was orderly.

Conclusion: Singapore flap is a reconstruction method which ensures neurovascular supply to the damaged vulvar area. In most cases it is one-sided, but it can also be done on both thighs. The significance of this case is that Singapore flap is rarely used when a tumor affects an area this large, but as we see it's manageable and has advantages such as minimal donor site morbidity, a reliable blood supply and single stage procedure.

Keywords: plastic surgery procedures; squamous cell carcinoma; vulvectomy

CR155

Bilateral knee disarticulation of lower limbs affected by gangrene caused by meningococcal sepsis

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Introduction: Gangrene is a complication that can arise from fulminant meningococcal sepsis, often necessitating amputation. The aim of this case report is to present one of possible methods for knee amputation, where it's optional to preserve patella, condyles, or both.

Case report: We present a case of a 15-year-old girl diagnosed with meningococcal sepsis (*Neisseria meningitidis* serogroup C). The patient also developed disseminated intravascular coagulation and multi organ failure. Due to embolization and thrombosis of limb arteries, gangrene of both lower legs occurred. Following the patient's recovery from sepsis, amputation of lower legs was indicated. The patient was induced under general anesthesia, followed by right and then left knee disarticulation. Method used was Baumgartner's, with removal of both patellas while preserving condyles. Skin flaps were formed, adapted and sutured together using resorbable material to avoid granulomas. Drains were also set. Patient remained stable postoperatively, receiving blood transfusion and electrolytes, continued analgesia and psychological support. Laboratory results were in accordance with patient state (high C-reactive protein and leukocytes, low erythrocytes and hemoglobin). Five days after operation skin swabs from wounds came positive for *Acinetobacter baumannii*, sensitive only to colistin. At the time of discharge, stumps were adequately healing, patient was afebrile and in good overall condition.

Conclusion: Knee disarticulation is, if possible, preferred over above-knee amputation, advantages being the possibility of full endbearing and smaller surface of wound (minimizes the danger of hemorrhage and infections). Preservation of condyles allows higher stump quality and best prosthetic fitting.

Keywords: Disarticulation; Gangrene; Knee; *Neisseria meningitidis*; Sepsis

CR156

Pseudoarthrosis after Elastic Stable Intramedullary Nailing: Reconsidering the implementation of Intramedullary nailing in pediatric fractures?

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Introduction: Forearm fractures are the most common fractures in children. Elastic stable intramedullary nailing (ESIN) is a minimally invasive method used for treatment of long bone fractures in children.

Case report: A sixteen-year-old boy presented in Emergency Pediatric Surgery department after fall from a wall with left forearm injury. X-ray showed diaphyseal fracture of the ulna and radius. On the same day, he underwent surgery - ESIN procedure was performed. Follow-up X-rays showed satisfactory alignment, but even after 6 months there was still no satisfactory healing of the bone. Two years after the procedure he represented with pain and swelling in his left arm and restricted movement. Pus was draining from the wire entry point into the ulna. An incision, pus evacuation, and wound irrigation were performed. X-ray showed pseudoarthrosis of the left ulna, and a positive Methicillin-resistant *Staphylococcus aureus* finding in the wound swab resulted with hospitalization and antibiotic therapy. Six days following his admission, both forearm nails were extracted. The wound was closed, reducing hypertrophic granulations, and interrupted sutures were placed above the ulna. Now being 18 years old he was transferred to adult orthopedic surgery for further treatment.

Conclusion: ESIN is the method of choice for treatment of long bone fractures in children. However, in children with closed growth plates the use of this method should be carefully considered.

Keywords: Bone Nails; Fracture Fixation; Postoperative Complications

CR157

Surgical treatment and reconstruction of advanced squamous cell carcinoma of the oral cavity – case report

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Introduction: Squamous cell carcinomas account for 90% of all oral carcinomas. They commonly affect the male population aged between 50 and 70 years, often with a history of long-term smoking and alcohol use. We will discuss a patient with a rapidly growing oral squamous cell carcinoma (OSCC), who underwent radical surgical treatment.

Case report: A 65-year-old patient presented with a gingival tumor infiltrating the mandibula and overlaying the dermis of the chin. The patient had a 1.25-pack-year history. Multi-slice computed tomography (MSCT) revealed a tumor mass at the sublingual region, measuring 57x56x49mm, crossing the midline, and infiltrating the mandible, and the dermis of the skin. A Commando operation was performed, including modified radical neck dissection type I on the left, selective neck dissection (I-IV) on the right, segmental mandibulectomy, and resection of all overlying skin of the chin and part of the lower left lip. The defect was reconstructed using a free osteofasciocutaneous fibula flap and an axial pectoralis major flap. Histopathologically, OSCC of TNM stage IV (pT4N0) was determined. Postoperative radiotherapy (PORT) was conducted, resulting in partial osteoradionecrosis of the reconstructed mandible (fibula bone) on the right. A sequestrectomy was performed, and the wound healed properly. The follow-up period has been without locoregional recurrence and with regular breathing and oral feeding.

Conclusion: Advanced OSCC can be successfully treated with radical surgery, followed by adequate reconstruction to achieve disease control and satisfactory function.

Keywords: Neck Dissection; Osteoradionecrosis; Squamous Cell Carcinoma of Head and Neck; Surgical Flaps

CR158

Acute pulmonary edema caused by advanced chronic endocarditis of the unicuspid aortic valve

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Introduction: Unicuspid aortic valve is a very rare congenital heart anomaly which can clinically manifest with heart valve disease such as aortic regurgitation or aortic stenosis. Endocarditis, which is an infection of the heart valves, commonly affects patients with pre-existing endocardial damage.

Case report: A 33-year-old male with no history of cardiovascular disease, presents with dyspnea, chest pain, and hemoptysis. The patient reports a one-month history of cough and weight loss due to decreased appetite. On examination, the patient appeared in poor general condition, exhibited orthopnea, and was diaphoretic with cold sweats. Lung auscultation revealed diminished breath sounds with crackles at the lower scapular border. Abdominal examination identified an enlarged, palpable liver and head and neck examination indicated distended neck veins. Due to suspicion of acute heart failure, the patient underwent an echocardiogram, revealing a dilated left ventricular chamber with severely reduced systolic function and an ejection fraction of 30%. Additionally, severe aortic regurgitation with infective vegetations on the aortic valve was detected. Following clinical stabilization, the patient was urgently referred for cardiothoracic surgery. Intraoperatively, a unicuspid aortic valve was identified, and aortic valve replacement with a biological prosthesis was performed. Valve culture confirmed the presence of *Staphylococcus hominis*, and the patient received adequate antibiotic treatment. During a subsequent echocardiogram, endocarditic masses on the valves were ruled out, confirming the integrity of the healthy biological aortic valve. Additionally, partial recovery of the right ventricular function was observed. The patient, in good general condition, was discharged with the continuation of the prescribed therapy.

Conclusion: This case highlights the rare occurrence of a unicuspid aortic valve, leading to severe complications such as infective endocarditis and massive aortic regurgitation.

Keywords: Aortic Valve; Endocarditis; Heart Valve Diseases

CR159

Persistent anemia leads to the diagnosis of Heyde's syndrome: a case report

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Introduction: Heyde's syndrome is a rare condition characterized by a unique relationship between severe aortic stenosis, angiodysplasia, and acquired von Willebrand syndrome.

Case report: A 75-year-old woman was admitted to the cardiology department due to cardiac decompensation caused by atrial fibrillation combined with microcytic anemia and bilateral lung infiltration. She was treated symptomatically and converted to sinus rhythm. Echocardiographic findings indicated a severely reduced systolic function of the left ventricle. Due to sideropenic anemia, the patient underwent an esophago-gastro-duodenoscopy which indicated chronic gastritis. Previously, a colonoscopy was performed, and the finding was normal. Three months later, she was hospitalized for cardiology reevaluation and coronary angiography. Further workup revealed severe aortic stenosis and an improvement in systolic function. In the meantime, she was repeatedly treated in the emergency department for anemia and transfusion support. During one of the outpatient examinations due to anemia, acute bleeding and angiodysplasias of the duodenal bulb were observed by video capsule and were subsequently treated with argon plasma coagulation via esophago-gastro-duo-denoscopy. Taking into account all the previous data and the hematologic workup, our patient was diagnosed with Heyde's syndrome. In our patient, anticoagulation therapy is not recommended considering the history of gastrointestinal bleeding, therefore, the installation of a left atrial appendage occluder is planned.

Conclusion: When evaluating a patient with anemia of unknown etiology and severe aortic stenosis, the differential diagnosis should always include rare syndromes, such as Heyde's syndrome. Early recognition of such a clinical course may help decrease the morbidity and mortality of the disease.

Keywords: anemia; angiodysplasia; aortic valve stenosis

CR160

Navigating Skin Cancer Challenges: A Case of Basal Cell Carcinoma with Successful Surgical Excision and Reconstruction

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Introduction: Basal cell carcinoma (BCC) is the most common type of skin cancer. It is usually located in the areas exposed to ultraviolet (UV) radiation. The main course of treatment is a total surgical excision, followed by flap reconstruction in case of substantial defects. A local flap consists of skin and subcutaneous tissue that is harvested from the donor site of the same region and transferred to the recipient site while maintaining its intrinsic blood supply.

Case report: We report a case of a 90-year-old female patient presenting with a tumor-like lesion measuring 5x4 cm, affecting the right cheek and spreading to the right nasal wing. Punch biopsy confirmed BCC. The patient was surgically treated with radical excision of the cancer and reconstruction under general anesthesia. The defect was reconstructed with a local rotational cervicofacial flap. During the reconstruction, a second skin malignancy from the left zygomatic area was transferred to the defect. It was not resected in order to preserve flap vitality. One month following the initial surgery, total excision of remaining skin malignancies was performed as well as reconstruction of the lower right eyelid due to ectropion and epiphora. In the follow-up period, local control and good aesthetic outcomes have been observed.

Conclusion: BCC has severe invasive potential if not discovered and treated adequately and timely. Radical surgery with clear surgical margins and proper reconstruction is the mainstay of treatment. The favorable aesthetic outcome of this particular reconstruction can be attributed to the loosening of the skin considering the patient's age.

Keywords: Basal Cell Carcinoma; Plastic Surgery Procedures; Surgical Flap

CR161

Complexities in Treating Osteoporotic Fractures: A Case Report of Multiple Periprosthetic Fractures

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Introduction: Osteoporosis is a skeletal disorder that predisposes patients to an increased risk of fractures as a result of compromised bone density. Conditions like paresis can further impact the loss of bone mass. Managing fractures in osteoporotic patients poses a therapeutic challenge, often leading to endoprosthesis implantation. Rare potential complications of this treatment are periprosthetic fractures.

Case report: A 65-year-old woman, with known history of osteoporosis and a preexisting paresis of the right leg, sought emergency care due to edema in the same leg. Conventional X-ray (CXR) revealed a multifragmented fracture of the lateral condyle. Persistent pain and a progressing knee deformation over the next three months lead to implantation of a knee tumor endoprosthesis. Two months post-surgery, she reported edema and pain in the right leg. CXR uncovered a multifragmentary fracture at the femoral endoprosthesis, prompting resection and re-arthroplasty. A year later, she presented with right leg pain and CXR showed a periprosthetic femoral neck fracture. An osteotomy was performed on the leftover femoral bone, followed by implantation of total hip prosthesis, interconnected with the previously implanted knee prosthesis. Pathohistological analysis of samples taken intraoperatively showed severe osteoporosis, leading to inadequate healing.

Conclusion: Osteoporosis presents a great therapeutic challenge, particularly when its impact is enhanced by comorbidities, such as, in this case, paresis. It not only makes the initial treatment of fractures more demanding when compared to regular bone, but it also makes solutions such as endoprosthesis one of the factors that could further exacerbate bone instability and susceptibility to future fractures.

Keywords: Arthroplasty; Fractures, Bone; Osteoporosis

CR162

Acute renal injury after ingestion of ethylene glycol – a case report

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Introduction: Ethylene glycol is a odorless, colorless alcohol found in various chemicals such as antifreeze. Exposure to the same is a consequence of accidental or intentional ingestion and is presented with varying degrees of toxicity, the care of which often requires intensive treatment, otherwise it is the cause of high morbidity and mortality.

Case report: a 52-year-old patient was hospitalized in the Intensive care unit of the University Hospital Centre Osijek after ingestion of antifreeze in suicidal intentions. In the initial laboratory results, metabolic acidosis with elevated lactates, severe hyperkalemia and anuric acute kidney injury were monitored. 30% ethanol therapy was introduced for 4 days and daily hemodialysis (HD) were started. Due to deterioration of respiratory status and state of consciousness, the patient was mechanically ventilated. In the further course of treatment, the patient was scheduled for biweekly HD due to exacerbation of renal failure and need for intermittent HD. At the last nephrological visit, one month after the start of HD, a significant recovery of exocrine renal function was monitored with maintained diuresis, which temporarily postponed HD. Meanwhile, the patient's repeated suicidal intention ended in a lethal outcome.

Conclusion: in this case, the diagnosis was made early on the basis of heteroanamnesic data. The ethylene glycol poisoning should be considered when the patient presents with metabolic acidosis with an anionic gap, renal and consciousness impairment. Furthermore, aggressive treatment in a short period of time will help prevent renal failure and death.

Keywords: Acute Kidney Injury; Ethylene Glycol; Hemodialysis

CR163

Cardiac myxoma as a rare cause of cardioembolism

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Introduction: Cardioembolism occurs due to the ejection of unwanted material, most often a thrombus, from the heart chambers into the systemic circulation, having various clinical manifestations. One of the rare causes of cardioembolism is myxoma, the most common primary benign tumor of the heart. In this article, the aim is to present a patient with a transient ischemic attack (TIA) caused by myxoma.

Case report: A 39-year-old woman with no history of cardiovascular disease has been admitted to the neurology clinic because of a TIA. The conducted examination did not find the cause of TIA. An ultrasound examination revealed regular flows in the carotid arteries, laboratory findings were within the reference values, and hereditary thrombophilias were excluded. The patient underwent an ultrasound of the heart, which found a large tumor mass in the left atrium, which is connected to the interatrial septum at its narrow end. Fluctuating streaks were found on the edges of the formation. A trans-oesophageal echocardiogram (TOE) was performed to confirm the existence of the tumor, whose characteristics correspond to a myxoma. After preoperative preparation, a cardiac surgical operation was performed with tumor extraction. The operation went without complications, and the patient no longer had neurological complaints.

Conclusion: Despite its infrequency, myxoma should always be considered in the differential diagnosis of embolic events, especially in patients without traditional risk factors. Also, this article highlights that cardiac myxomas can have significant clinical implications and should be managed with a high degree of suspicion and urgency.

Keywords: Echocardiography; Transesophageal; Ischemic Attack; Transient; Myxoma

CR164

Giant placental chorioangioma as a cause of polyhydramnios: a case report

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Introduction: Placental chorioangioma is the most common benign tumor of the placenta. Giant placental chorioangiomas, defined as measuring more than 4-5 cm in diameter, are associated with a high rate and variety of perinatal complications.

Case report: A 37-year-old healthy woman was referred to the clinic, at 28+4 weeks' gestation, due to an amniotic fluid index of 29 cm. At the time of admission, her vital parameters were in the normal range, she did not feel contractions or any other subjective complaints. The ultrasound examination revealed a placental mass that was suspected as chorioangioma. Serum levels of beta-human chorionic gonadotropin (1990.0), alpha-fetoprotein (119.8) and cancer antigen 125 (92.3) were elevated. Potential fetal complications were regularly assessed with serial ultrasound scans, Cardiotocography and Doppler ultrasound. There were no signs of fetal anemia, which was the main possible pathological outcome of this pregnancy (<1.5 MoM). Since she developed shortness of breath, alongside with contractions and other signs of preterm delivery, amniotomy-induced labor was performed. She delivered a healthy child at 32+4 weeks' gestation (Apgar score 10/10). On a completely delivered placenta, well-circumscribed mass of 7.5x7cm was found near the insertion of the umbilical cord. Pathohistological diagnosis confirmed the chorioangioma of the placenta. Serum levels of the tumor markers started to decrease two weeks postpartum and were in the normal range five months postpartum.

Conclusion: This case report shows how to recognize this rare, but possible cause of polyhydramnios. Moreover, it emphasizes the importance of adequate follow-up of these patients, which can lead to the delivery of a completely healthy child.

Keywords: hemangioma; obstetrics; placenta; polyhydramnios

CR165

Successful treatment of giant melanocytic nevus using glycosaminoglycan dermal regeneration template and Thiersch mesh-graft technique

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Introduction: Melanocytic nevi denote benign cutaneous proliferations of melanocytes. They're widespread in occurrence and while mostly benign, vigilance is crucial due to a 40% melanoma association. Changes in color, shape or size may prompt further treatment. The standard approach for suspicious melanocytic nevi entails surgical excision, as for giant nevi, excision with skin grafting ensures optimal management.

Case report: We present a 9-year-old girl with a giant melanocytic nevus affecting right lower leg and foot. The initial surgery involved complete excision of the nevus. Two sheets of glycosaminoglycan dermal regeneration template were applied, resulting in clean and complication-free wound. Follow-up operation, three weeks later, focused on removing the integrated silicone cover, into which the dermal layer had successfully integrated. Affected surface underwent Thiersch's partial-thickness skin grafting utilizing the mesh-graft method, sourced from the patient's left thigh. Adequate healing and successful graft integration were achieved through consistent dressing of the surgical site and only a few smaller non-epithelialized zones persisted. In follow-up, findings were adequate. The patient faced challenges with increased physical exertion, leading to epithelial peeling on the soles of her feet. She was advised to avoid strenuous activities and prioritize wound care.

Conclusion: The removal of giant melanocytic nevi is a challenging process. However, selecting the appropriate method can lead to satisfactory results. The mesh-graft method, utilizing the patient's own skin, has proven successful in ensuring rehabilitation and high life quality post-procedure, supported by adequate care and regular check-ups.

Keywords: Pigmented Nevus; Skin Grafting; Surgery

CR166

A patient with Poland syndrome treated with lipofilling

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Introduction: Poland syndrome is a rare congenital malformation, estimated to occur in 1 in 40,000 newborn children, characterized by an absence or under-development of the pectoralis major muscle, along with the severely affected individuals having abnormalities of the chest and hand (syndactyly). Common treatment options include reconstruction with silicone implants or local muscle flaps. Being less invasive, lipofilling (autologous fat grafting) is also a possible course of treatment, but less frequently used due to the longevity of the procedure.

Case report: We report a case of a 50-years-old male patient presented with the breast asymmetry first revealed in puberty. Throughout the years the patient suffered with this aesthetic problem, trying to compensate for absent pectoralis major in the gym. Reconstruction treatment was firstly managed with the silicone implants. Several months later, patient reported dissatisfaction due to the visibility of the implant lining, followed by implant extraction. Six months later, after the wound-healing period, an autologous fat transfer procedure with the abdominal fat tissue harvesting was done. 150 ml of fat graft was injected into the soft tissue without invading intercostal spaces. This procedure was repeated twice a year for six years, due to resorption of the fat cells. In total, 390 ml of fat graft was injected, and the patient was satisfied with the outcome.

Conclusion: This case shows the importance of various reconstruction methods as a pathway to the best aesthetic outcome and installment of a positive body picture. Although a less popular method, lipofilling was the optimal one for this patient.

Keywords: Congenital Abnormalities; Plastic Surgery Procedures; Poland Syndrome

CR167

Groin pain due to iliopsoas muscle hematoma as the first manifestation of CML: a case report

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Introduction: Chronic myeloid leukemia (CML) typically affects middle-aged and older individuals with a median onset at 65 years of age. Adolescents and young adults constitute 22,1% of CML cases, with an estimated annual incidence of 1 million in this age group. Here we present the case of 22-year-old male patient with leftside iliopsoas muscle hematoma causing groin pain, as initial manifestation of CML.

Case report: A 22-year-old patient presented with recurring visits to the emergency surgical department due to persistent pain in the left groin, despite extensive analgesic therapy and without prior trauma. Laboratory findings revealed significant leukocytosis ($356,4 \times 10^9/L$), macrocytic anemia, thrombocytosis ($655 \times 10^9/L$), and altered coagulogram (INR = 1,47). Patient was hospitalized and diagnosis of BCR-ABL positive CML was established through sternal puncture, molecular diagnostics and cytogenetic analysis. To clarify the etiology of left groin pain, a computed tomography was performed and revealed an enlarged left iliopsoas muscle with heterogeneous structure. Additional targeted ultrasound confirmed the presence of a hematoma without pathological vascularization. Treatment included initial cyto-reduction, followed by tyrosine kinase inhibitor. Due to haemorrhagic diathesis manifested as episodes of epistaxis, the patient was treated with prothrombin complex concentrate and synthetic vitamin K. Left groin pain gradually regressed without active treatment.

Conclusion: As this case emphasizes, groin pain may pose diagnostic challenge and non-surgical causes should be considered during a diagnostic workup of groin pain in emergency department. Simultaneously, it underpins diverse symptomatology of hematological entities in clinical practice.

Keywords: Leukemia; Myeloid; Blood Coagulation Disorder; Psoas Muscles

CR168

Adjuvant treatment of BRAF positive malignant melanoma in a patient with comorbidities

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Introduction: The treatment of malignant melanoma (MM) is dependent on many factors such as stage of the disease and the patient's general health. Patients with stage III MM are indicated adjuvant therapy due to a higher risk for relapse of the disease and those with comorbidities require close monitoring and prompt management of adverse effects.

Case report: A 38-year-old woman with flaccid paraplegia, stage 4 chronic kidney disease and hydronephrosis had an excision of a cutaneous tumor in the left lumbar region in 2022 (MM, Breslow III, Clark III, BRAF positive). The multidisciplinary team recommended a reexcision of the tumor, a sentinel lymph node biopsy (SLNB) and a positron emission tomography-computed tomography (PET/CT) staging. SLNB was positive, however a PET/CT scan showed no signs of residual tumor or disease dissemination. The recommended adjuvant treatment approach are BRAF-MEK inhibitors. In this case, dabrafenib 2x150 mg/day and trametinib 1x2 mg/day. The patient's pre-treatment laboratory results revealed an elevated creatinine value (CRE) of $272 \mu\text{mol/L}$ and a dynamic renal scintigraphy showed significantly decreased function of the left kidney and an afunctional right kidney. A JJ-stent was inserted and creatinine value decreased (CRE $239 \mu\text{mol/L}$). Two months later, the patient's clinical state worsened. She experienced hypertension, tachycardia, vertigo, fever and her creatinine value once again increased ($259 \mu\text{mol/L}$). The JJ-stent was removed (CRE $303 \mu\text{mol/L}$) and oncological therapy was modified; dabrafenib 2x100 mg/day and trametinib 1x2 mg/day. With the modified dosage, the patient was able to continue with the treatment, while creatinine value decreased.

Conclusion: Comorbidities can affect all levels of melanoma treatment approach, including prognosis and survival. This case shows the importance of dose modification in the adjuvant treatment of patients with comorbidities.

Keywords: Comorbidity; Melanoma; Proto-Oncogene Proteins B-raf; Kidney Failure, Chronic

CR169

Surgical approach to the treatment of chronic facial wounds

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Introduction: Chronic wounds represent a break in tissue continuity that does not go through all stages of wound healing promptly and usually lags in the inflammatory phase. In addition to causing long-term pain, chronic wounds significantly impair the quality of life. An innovative surgical approach can help patients return to daily activities more quickly.

Case report: A 48-year-old woman, without any prior health issues, visited the maxillofacial clinic at KBC Osijek due to a persistent chronic wound on her zygomatic bone. Several years ago, she was treated by other subspecialists in the form of antibiotic therapy and with few tissue biopsy findings that proved the existence of a chronic wound. At KBC Osijek, the solution to this problem was approached by total excision of the ulcerous area with the Limberg flap, a local rhomboidal transposition flap usually used when direct closure of skin defects is not possible. Biopsy results after the surgery confirmed the presence of a chronic wound. Re-excision of the scar was performed ten days after the procedure to improve the cosmetic appearance and lipofilling was performed six months after, to return not only the natural shape of the zygomatic bone but also to achieve a certain volume. The patient was given broad-spectrum antibiotics during the entire treatment process.

Conclusion: This case illustrates the importance of timely diagnosis and a professional approach to treatment in the form of surgical removal of chronic changes in an extremely sensitive area such as the face.

Keywords: biopsy; ulcer; wounds and injuries

CR170

Pediatric hand reconstruction following blast injury

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Introduction: Blast injuries, caused by object explosions, often affect the hand due to accidental blasts during handling. Mild cases involve only soft tissue, allowing early motion and positive outcomes. Severe injuries, with hand amputations, lead to significant disability. The primary aim of treating any case is to maximize functional preservation, and this objective is also emphasized in this case report.

Case report: We present a 2-year-old boy admitted to the emergency room due to a left hand wound from a household appliance explosion. The injury, located at the hand's center on both palmar and dorsal sides, involves a bone and soft tissue defect. The third finger is hanging on the flexor tendon, completely devitalized. X-ray imaging revealed a defect in the third metacarpal bone's almost entire length and comminuted fractures of metacarpal bone (MC) II and MC IV. The patient underwent surgery, starting with MC II osteosynthesis using a Kirschner wire and Ethibond tension band wiring. The middle finger was amputated and MC III base was then removed. Subsequently, an MC IV osteosynthesis with two Kirschner wires was performed. Skin defects were addressed with local flaps and partial-thickness skin grafts from the left forearm. The procedure concluded with immobilization and antibiotic therapy. In follow-up, the patient demonstrated effective fist use, with well-developed fine motor skills post-physical therapy.

Conclusion: This case underscores the complex nature of blast injuries. It emphasizes the critical importance of prompt intervention and comprehensive treatment in minimizing severe blast injury consequences, leading to positive functional recovery outcomes.

Keywords: blast injuries; comminuted fractures; recovery of function; surgical amputation

CR171

Conservative Treatment of Necrotizing Fasciitis

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Introduction: Necrotizing fasciitis (NF) is a rapidly progressive bacterial soft-tissue infection. Treatment of NF includes radical surgical debridement often resulting in large wounds which are usually closed with split-thickness skin grafts and local flaps.

Case report: We present a 53-year-old male patient with NF and phlegmona of the dorsum of the foot which occurred as a complication of cat scratch. The site of infection was incised followed by necrectomy. This left a large foot defect with tendons exposure. Patient was also receiving methylprednisolone for rheumatoid arthritis (RA) and was in clinical remission. Due to high risk of RA relapse, discontinuation of chronic corticosteroid therapy was not approved, so reconstructive surgery using skin grafts or flaps was not recommended. Additionally, patient had history of deep vein thrombosis and was on anticoagulant medication which is also considered a relative contraindication for skin grafting. Conservative approach was the treatment of choice. Patient received four debridements followed by negative pressure wound therapy along with antibiotics. After the last session, the wound healed significantly and inflammation was resolved. Posttreatment range of motion, muscle and nerve function of the foot remained unchanged along with normal local findings.

Conclusion: Long-term corticosteroid therapy is associated with decreased healing and increased risk of postoperative complications. When deciding on surgical or conservative treatment, all benefits and downsides of each must be taken into consideration. Less invasive, conservative approach should always be considered, especially when there are contraindications for reconstructive surgery.

Keywords: Cat-Scratch Disease; Conservative Treatment; Debridement; Necrotizing Fasciitis

CR172

IgG4-related ophthalmic disease in a patient with exophthalmos and swollen eyelids

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Introduction: Immunoglobulin G4-related disease (IgG4-RD) is a systemic immunological condition characterized by fibroinflammatory lesions containing an abundance of IgG4+ plasma cells. These lesions can manifest in single or multiple organs throughout the body. The primary objective of this case report is to underline the significance of early recognition of disease manifestations in the eye or orbit and emphasize the importance of initiating therapy promptly.

Case report: We present a case involving a 66-year-old woman with bilateral eyelid swelling and predominantly right-sided exophthalmos lasting several months before hospitalization. Orbital CT scan confirmed exophthalmos and enlarged extraocular muscles. Elevated IgG4 levels (12,000 g/L) prompted an orbital fat tissue biopsy, revealing a lymphoplasmacytic infiltrate with germinative centers. Immunohistochemistry detected over 100 IgG4-positive plasma cells, constituting more than 50% of all IgG-positive cells. Immunophenotyping confirmed IgG4-RD. Symptoms resolved with intravenous corticosteroids, followed by oral methylprednisolone.

Conclusion: IgG4-related ophthalmic disease, a highly treatable facet of IgG4-RD, showcases characteristics such as tumor-like masses and elevated IgG4 blood levels. The crucial diagnostic steps involve biopsy and pathohistological confirmation. The administration of IV and oral corticosteroids consistently achieves a rapid remission of symptoms, emphasizing the effectiveness of timely intervention in managing IgG4-related diseases. In addition, rituximab stands as a viable alternative for cases requiring or intolerant to corticosteroids.

Keywords: Exophthalmos; Immunoglobulin G; Plasma cells

CR173

The evaluation and treatment of a patient with severe hyponatremia in the Emergency Department- a case report

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Introduction: Severe hyponatremia is defined as a serum sodium concentration < 120 mEq/L. The aim of this case report is to demonstrate the importance of having a broad differential diagnosis and detailed diagnostic workup while evaluating a patient with hyponatremia, in tandem with an adequate therapeutic intervention.

Case report: A 69-year-old male presented to the emergency department with altered mental status. Previous medical documentation revealed a history of heart failure, along with a coronary artery bypass graft surgery and an electrostimulator implantation. Laboratory workup demonstrated severe hyponatremia - serum sodium 109 mmol/L. There were signs of fluid overload on physical examination. Urine osmolality was greater than 100 mOsm/kg, which indicated impaired water excretion. Urinary sodium concentration, greater than 40 mmol/L, indicated possible syndrome of inappropriate antidiuretic hormone secretion (SIADH), reset osmostat syndrome or renal salt wasting. Additional diagnostic workup, including echocardiography, demonstrated acute heart failure, which along with the impaired sodium excretion was considered as acute cardiorenal syndrome. The patient was treated with a hypertonic (3%) sodium chloride solution with a goal of raising the serum sodium by 6-8 mmol/L over 24 hours and was admitted to the intensive care unit.

Conclusion: Patients with severe hyponatremia and altered mental status need to be treated promptly. Dilutional hyponatremia may occur in heart failure patients with cardiorenal syndrome, due to impaired free water clearance and reduced glomerular filtration rate. Hypertonic sodium chloride is administered at an appropriate rate in order to decrease the risk of neurological dysfunction.

Keywords: Altered Mental Status; Cardiorenal Syndrome; Emergency Medicine; Heart Failure; Hyponatremia

CR174

Experience in treating patients with anophthalmia

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Introduction: Anophthalmia, which can occur unilaterally or bilaterally, refers to the total absence of all optic structures, encompassing the globe, optic nerves, optic foramen, and optic chiasm. It may manifest either as an isolated developmental abnormality or as part of a syndrome, typically arising from a combination of genetic and environmental factors.

Case report: This comprises a three-year retrospective case series, encompassing four individuals with a total of five eyes—four right and one left eye. The age range spans from 13 months to 18 years, with one female and three male patients. The youngest patient with congenital anophthalmia underwent a procedure, in which orbital expander starting with 2 mL in volume was embedded. Expanders were changed frequently to a larger size to prepare the orbit for the therapeutic goal of a suitable prosthesis. The remaining three patients were older children who had tumors and subsequently underwent enucleation of the eye, coupled with orbit reconstruction and the placement of a silicone prosthesis. All patients experienced an uneventful early postoperative course. After a year, one of the patients developed epicanthus and Mustarde's double Z-plasty was performed. The late postoperative course went well for other patients.

Conclusion: Prompt surgical intervention is crucial for promoting normal orbit development, improving postoperative healing, and reducing complications, especially in children who continue to develop. Neglecting treatment can lead to notable cosmetic deformities, causing substantial challenges in social interactions. Proper treatment enhances cosmetic outcomes and, consequently, the psychosocial well-being of the patient.

Keywords: Anophthalmos; Orbit; Silicones; Social interaction

CR175

Internal carotid artery dissection: a case report

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Introduction: Carotid artery dissection usually presents with neck pain and headache, Horner syndrome and/or cranial and cervical neuropathies. It can occur due to minor traumas or some genetic disorders, most commonly fibromuscular dysplasia.

Case report: We present the case of an 18-year-old female who came to the Emergency Department presenting with right sided Horner syndrome. A week before, she was jumping into the sea, head first. She also experienced headache and right sided neck pain. During neurological examination, ptosis of the right palpebrae and myosis of the right pupil were found, while the rest was normal. Computed tomography angiography (CTA) of the supraaortal arteries showed occlusion of the right internal carotid artery (ACI) in extracranial segments, which could be part of vasculitis or dissection. Color Doppler (CDFI) of the neck arteries was more indicative for dissection. Magnetic resonance imaging (MRI) of the brain with angiography confirmed right ACI dissection with intraarterial thrombosis. Considering that all cardiac and immunological tests were normal, the dissection was probably due to minor trauma. She was treated with the combination of anticoagulant and antithrombotic, and later with dual antithrombotic therapy. One month later, control CDFI of the neck arteries showed the beginning of revascularization of the obliterated ACI. The deficit partially recovered, only minor myosis left, and she did not have any complications.

Conclusion: It is extremely important to recognize cervical artery dissection to start treatment on time, so that complications like ischemic stroke, or transient ischemic attack, can be prevented.

Keywords: internal carotid artery dissection; Horner syndrome; ischemic stroke

CR176

The airway management of choanal atresia in a newborn with Apert syndrome

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Introduction: Apert syndrome is an autosomal dominant inherited syndrome caused by mutations in the gene encoding fibroblast growth factor receptor 2 (FGFR2). It is a rare disease that is estimated to occur in 1 in 65,000–200,000 births. It is characterized by craniosynostosis, abnormal skull and facial development and syndactyly. This report aims to demonstrate the importance of sometimes required urgent therapeutic intervention in this syndrome.

Case report: We present the case of a female neonate with Apert syndrome confirmed by prenatal ultrasound and genetic diagnostics at 31 weeks of gestation, which detected a heterozygous pathogenic variant in the FGFR2 gene. Shortly after elective cesarean delivery at 38 weeks of gestation, the patient became cyanotic and bradycardic without recovery on nasal continuous positive airway pressure (nCPAP), leading to endotracheal intubation and mechanical ventilation. Difficulties in passing through a nasal tube and fiber endoscopy confirmed the diagnosis of bilateral choanal atresia. In addition to brachycephaly, syndactyly of the fingers and toes (type II), cleft palate and choanal atresia, the examination revealed maxillary hypoplasia and hypoplasia of the corpus callosum and cerebellum. Because of prolonged mechanical ventilation, tracheostomy was performed. Surgery for choanal atresia and cleft palate will be delayed until six months to one year of age.

Conclusion: As choanal atresia is an urgent neonatal condition, it is essential to initially secure the airway before treating other malformations. Future management is a team-based approach that requires multiple subspecialists such as neurosurgeons, plastic surgeons, craniofacial surgeons, otorhinolaryngologists and ophthalmologists.

Keywords: Apert syndrome; choanal atresia; syndactyly

CR177

Non – Melanoma Skin Cancer in Hematological Patient: Predispositions and Chemotherapeutic Impact on Wound Healing

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Introduction: Non-melanoma skin cancer is frequently observed in hematologic patients, often associated with hydroxyurea treatment. However, in certain cases, these cancers may be pre-existing and require treatment. Following excision, hematologic patients usually continue to receive chemotherapy administered before surgery. Chemotherapy targets rapidly proliferating neoplastic cells and this case report will emphasize the need to evaluate its effect on dividing cells in fresh surgical wounds.

Case report: An 84-year-old male initially treated with hydroxyurea for chronic myeloproliferative neoplasm displayed worsening symptoms, leading to admission to the hematology department of University Hospital Dubrava. A subsequent bone biopsy confirmed progression to acute myeloid leukemia (AML), prompting therapeutic intervention with azacitidine and busulfan. Despite the conventional link between hydroxyurea and non-melanoma skin cancers in hematological patients, this patient exhibited a predisposition to such tumors before drug initiation. Due to this susceptibility and a prior planocellular carcinoma treatment, a plastic surgeon was consulted. Following assessments of pathohistological and computed tomography findings, patient underwent successful left auricular and temporal region excision and reconstruction with a split-thickness skin graft. Graft adhered successfully and busulfan was continued. However, a five-month follow-up revealed non-healing wounds on the head and forearm diverging from the expected healing process.

Conclusion: The observed delayed wound healing may be linked to inhibitory effect of alkylating chemo-therapeutics, such as busulfan, on initial vascularization during the proliferative phase of wound healing, which warrants further investigation. It is also important to note that not all cases of non-melanoma cancer in hydroxyurea-treated patients can be attributed solely to the medication; some may involve pre-existing susceptibilities.

Keywords: Antineoplastic Agents; Myeloproliferative Disorders; Skin Neoplasms; Wound Healing

CR178

Status epilepticus in a pediatric patient caused by unusual shunt malposition

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Introduction: Ventriculoperitoneal (VP) shunt is a device used to treat hydrocephalus. It works by bypassing excessive cerebrospinal fluid (CSF) from the ventricles to the peritoneal cavity. The aim of this case report is to present the unexpected factors which contributed to VP dysfunction.

Case report: We present a 4-year-old male child admitted to hospital due to generalized status epilepticus. The patient has never had seizures prior to this episode. He was diagnosed with severe hydrocephalus at birth and had VP shunt surgery. He was afebrile and had no prodromal symptoms other than vomiting. Seizures were unresponsive to supratherapeutic doses of benzo-diazepines, propofol and phenobarbital but were ultimately stopped with thiopental and muscle relaxants after endotracheal intubation. The performed brain computed tomography scan revealed malposition of the shunt's proximal end. A chest roentgenogram was done to determine the position of the endotracheal tube. The examination showed blurred left phrenicocostal space with the distal tip of VP shunt seen in the same place. The child remained sedated until the following day when the whole VP shunt was replaced without immediate postoperative complications. Control radiographic follow-up presented appropriate placement of both shunt tips. The child was discharged without neurologic consequences, with levetiracetam for seizure prophylaxis.

Conclusion: Shunt dysfunction is usually caused by obstruction or disconnection, which can occur in both proximal and distal catheter. Therefore, radiographic imaging of the entire VP drainage system is important in setting the right diagnosis.

Keywords: Hydrocephalus; Pediatrics; Ventriculo-peritoneal Shunt

CR179

Case report: Abnormal uterine bleeding in a 22-year-old patient with Loeys-Dietz syndrome

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Introduction: Abnormal uterine bleeding (AUB) is "flow outside of normal volume, duration, regularity, or frequency.". This type of uterine bleeding can be caused by non-structural factors or anatomic abnormalities in the uterus. Loeys-Dietz syndrome is a connective tissue disorder that can affect various parts of the body. This case report emphasizes the significance of early intervention to prevent severe bleeding complications in Loeys-Dietz syndrome.

Case report: A 22-year-old woman with Loeys-Dietz syndrome and other comorbidities was admitted to the Clinic for Women's Diseases and Obstetrics with menorrhagia for observation and treatment. On admission, heavy vaginal bleeding was observed during a speculum exam. It was recommended to switch from Martefarin to Enoxaparin due to heavy vaginal bleeding. The patient experienced less bleeding while taking enoxaparin 2x0,6 ml s.c./day. Despite taking Provera 60mg, the patient continued to experience heavy bleeding throughout the weekend. It was recommended to perform aspiration of the uterine cavity using the Karman method to reduce bleeding. Patient initially had mild anemia (erythrocytes 3.31x10¹²/L, Hb 102 g/L, MCV 91.9 fL) which progressed to macrocytic anemia during hospital stay (erythrocytes 2.24x10¹²/L, Hb 73g/L, MCV 102,7 fL). The patient was prescribed two units of blood transfusion and Ferinject 1000mg to treat anemia.

Conclusion: This report examines the management of menorrhagia in a young woman with Loeys-Dietz syndrome. Despite enoxaparin and Provera treatment, her bleeding persisted. She underwent uterine cavity aspiration. However, her condition did not improve. This led to the necessity of a blood transfusion along with Ferinject therapy, due to worsening anemia.

Keywords: Loeys-Dietz syndrome; macrocytic anemia; menorrhagia

CR180

The challenge of recognizing Parkinson's disease in veterans with post-traumatic stress disorder

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Introduction: Parkinson's disease (PD) is a neurodegenerative disorder that affects movement. It occurs when there is a decreased level of dopamine, a neurotransmitter involved in movement control. It is assumed that interaction of genetic and environmental factors has an impact on disease development. Symptoms typically begin gradually and worsen over time. Most common include tremor, bradykinesia, muscle stiffness and postural instability. The aim is to establish the diagnosis and start treatment as early as possible given the diverse clinical presentation.

Case report: We present a case of 57-year-old man with post-traumatic stress disorder (PTSD) in history of illness, who was referred to several neurologists due to wide specter of symptoms that changed and progressed over time. It started with severe pain and tingling that spread throughout the arm. Eventually, the patient developed tremor and complete loss of fine motor skills which also affected the right leg over time. Patient had rigid muscles, gait dysfunction, swallowing problems, mood swings and sleep disorder as well. After more than two years of various tests, the last neurological findings suspected PD considering clinical manifestation. Dopamine transporter scan (DaTscan) showed loss of dopaminergic neurons and confirmed diagnosis. A combination of levodopa and carbidopa was introduced into therapy.

Conclusion: While there is no cure for Parkinson's disease, early diagnosis and treatment can help manage symptoms and improve quality of life. It is necessary to consider the influence of stress and drugs on disease development, as in the case of this patient.

Keywords: dopamine; Parkinson Disease; Stress Disorders, Post-Traumatic

CR181

Case report: Late onset of Conn's disease

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Introduction: Primary hyperaldosteronism, or Conn's disease, results from excessive autonomous aldosterone production by the adrenal cortex. It is a common cause of secondary hypertension, usually between ages 30 and 50. Because of atypical symptoms, primarily due to resistant arterial hypertension and hypokalemia, it is frequently underdiagnosed. This case report aims to show the importance of considering primary hyperaldosteronism as a possible cause of secondary hypertension in the elderly.

Case report: The 75-year-old patient presented with resistant hypertension, with peaks reaching up to 220/110 mmHg, without other symptoms. She was diagnosed with hypertension 15 years ago, well controlled until three months ago. Her laboratory analyses revealed normal values of aldosterone and potassium but a low renin level of <0.8 ng/L, leading to an elevated aldosterone to renin ratio. Confirmatory testing with saline infusion was performed, without adequate aldosterone suppression thus leading to the diagnosis of primary hyperaldosteronism. The computed tomography scan revealed no abnormal alterations to the adrenal gland so she was presumed to have hyperplasia. She was discussed at the multidisciplinary adrenal team and was not deemed a surgical candidate therefore adrenal vein catheterisation was not pursued. Spironolactone was introduced in therapy with gradual weaning of other agents. At last follow-up, optimal control of blood pressure was achieved with just 100mg spironolactone daily (120/80 mmHg).

Conclusion: Late onset of primary aldosteronism is uncommon, so this case report represents an important lesson. It emphasizes the significance of suspicion and screening for primary hyperaldosteronism, even in older patients with a history of primary hypertension.

Keywords: Aldosterone; Hyperaldosteronism; Hypertension

CR182

Revealing Acquired Hemophilia: Postoperative Manifestation in a Patient with Autoimmune Disease

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Introduction: Acquired hemophilia A (AHA) is a rare autoimmune disorder characterized by significant bleeding tendencies due to the presence of circulating autoantibodies that inhibit coagulation factor VIII (FVIII). This case report emphasizes the significance of early diagnosis of acquired hemophilia to prevent life-threatening complications.

Case report: We present a case of a 63-year-old man, with collagenosis and rheumatoid arthritis, who was diagnosed with AHA during an early postoperative period. An emergency laparotomy was performed in regional hospital due to acute abdomen, revealing gangrene of the jejunum mesentery and hematoma. Postoperatively, bleeding occurred between laparotomy stitches, with consistently prolonged aPTT (activated partial thromboplastin time). Extensive laboratory testing revealed an inhibitor to FVIII, along with decreased levels of FVIII and FXII. Afterwards, he was urgently sent to our institution for appropriate medical treatment and a more detailed examination. AHA was promptly treated with immunosuppression therapy (methylprednisolone and cyclophosphamide) to eradicate inhibitors to FVIII. The patient was also administered with factor eight inhibitor bypass activity agent (FEIBA) to stop the bleeding. After twenty days of hospitalisation, patient was recovered and discharged with normal levels of FVIII and negative FVIII inhibitors. The patient has been in successful remission of AHA for ten years of follow up.

Conclusion: AHA is a rare life-threatening bleeding disease linked to autoimmune diseases or cancer. Considering AHA as a potential diagnosis in individuals with acquired severe bleeding is crucial for swift diagnosis and treatment. This condition is often overlooked, emphasizing the importance of awareness for timely intervention.

Keywords: Acquired Hemophilia; Autoimmune Hemorrhagic Disorder; Coagulation Factor VIII; Inhibitors

CR183

Resection of locally advanced residual basal cell carcinoma of nose and reconstruction after partial nasal amputation

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Introduction: Basal cell carcinoma (BCC) is slow-growing and locally aggressive tumor which accounts for about 70% of skin malignancies. It usually appears on the head and neck due to insolation. This case report presents treatment of locally advanced residual BCC of nose and functional and aesthetic outcome after reconstruction.

Case report: A 80-year-old male underwent radical resection of residual BCC on the right side of the nose after several previous incomplete surgical treatments in other institutions. Previous resections included the removal of the right nasal pyramid, alar and triangular cartilages. Considering positive surgical margins, our radical treatment included circumferential reexcision and a right medial maxillectomy. After histopathological confirmation of clear surgical margins, reconstruction was performed in two stages with delayed frontal flap. In first stage, left frontal flap was harvested and left in situ to obtain adequate vitality. In second stage, frontal flap was completely raised and caudally folded. Chondral auricular graft was buried in frontal flap in order to obtain better functional and aesthetic results. After completion of the second stage, final treatment included cutting of frontal flap pedicle. Local control of the disease and good functional and aesthetic outcome were observed in follow up.

Conclusion: Clear surgical margins are mandatory in the treatment of BCC. Radical resection is necessary in cases of previously treated residual BCC. Reconstruction after partial nasal amputation with frontal axial flap and auricular chondral graft presents good functional and aesthetic results.

Keywords: margins of excision; residual neoplasm; skin neoplasm

CR184

Mandibular swing approach and reconstruction with forearm microvascular free flap in patient with squamous cell carcinoma of palatine tonsil

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Introduction: Microvascular free tissue transfer is the technique of choice for the reconstruction of oropharyngeal defects. One of the options is forearm free flap. The present case report shows the use of forearm free flap in the reconstruction of defect after the resection of the squamous cancer of palatine tonsil.

Case report: A 67-year-old female was admitted to the clinic for the surgical treatment of the squamous cancer of the left palatine tonsil. Prior to surgery, the computed tomography scans of the neck and chest were done, and the tumor with necrosis and calcification was found in the left palatine tonsil. The lesion reached medial line, narrowed the airway and dislocated the uvula to the right side. Malignant left-side neck lymphadenopathy was found with the largest single lymph node in the level three. Under general anesthesia tracheostoma was formed. Modified radical neck dissection type two was performed, followed by lip split and mandibular swing approach. After the resection of the tumor, radial free flap from the left forearm was harvested and used for the reconstruction of the defect. Anastomoses of flap artery with facial artery and flap vein with facial vein were made. The patency test was normal. The forearm defect was covered with Thiersch skin graft from the right upper leg. One year after the surgery, the patient has no recurrence of the disease.

Conclusion: Reconstruction of oropharyngeal defects presents a technical challenge. Combining mandibular swing approach with radial free flap reconstruction provides good oncological outcomes and postoperative life quality.

Keywords: free tissue flaps; mandibular osteotomy; oropharyngeal neoplasms

CR185

Multiple tumors in a patient with chronic lymphocytic leukemia (CLL)

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Introduction: Multiple primary neoplasms are defined as more than one synchronous cancer in the same individual. In chronic lymphocytic leukemia (CLL), therapy-related cytotoxicity and the resulting immunodeficiency are thought to contribute to the development of secondary primary malignancies and making patients more susceptible to infections. While rare, this case emphasizes the importance of understanding the potential sequence of events associated with multiple tumors.

Case report: A 70-year-old female, prior diagnosed with several tumors, was admitted to the hematology department due to worsening of her general condition, febrility and pneumonia. Initially diagnosed with B-cell chronic lymphocytic leukemia (B-CLL), she was treated with several lines of immunochemotherapy. Afterward, a solitary fibrous tumor of the lung was discovered, initially only monitored, but later treated with radiotherapy due to progression. In the meantime, the woman was diagnosed with ovarian mucinous cystadenoma and underwent surgery. A few weeks before admission, doctors found a formation in the sacroiliac region that was pathohistologically proven to be a metastasis. Multislice computed tomography (MSCT) of the urinary tract showed a mass in a kidney, later proven to be urothelial carcinoma. A scan showed widespread metastases throughout the body. Two weeks after admission the patient sadly passed away because of infection.

Conclusion: CLL is the most frequently diagnosed leukemia among adults in the Western world. Improved longevity of patients with CLL may lead to higher risk of developing new tumors due to a variety of unique factors, including cancer predisposition syndromes, late effects of therapies and environmental exposures.

Keywords: Leukemia, Lymphocytic, Chronic, B-cell; Neoplasms, Multiple Primary; Solitary Fibrous Tumors

CR186

Unrecognized anatomical anomaly - Urethral duplication in a 15-year-old boy: a case report

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Introduction: Duplicated urethra is an extremely rare congenital anomaly, mostly in males, with unclear embryology and a few hundred reported cases. This case report emphasizes the importance of precise early examinations and diagnostics to detect such anomalies before early adulthood.

Case report: We present a case of a 15-year-old boy who, since early childhood, has had a small opening on the dorsal aspect of the penis, occasionally secreting a clear yellowish substance believed to be an epidermal cyst. Circumcision at the age of 5 led to fibromatous glans changes that caused dorsal recurvature, leading to the decision for surgical correction of the mentioned alteration. Under general anesthesia and penile block, excision of the fibromatous change of the glans crown and scar correction were performed. Intraoperatively, probing the opening on the dorsal aspect of the penis revealed a long canal extending to below the pubic symphysis. Fistulography confirmed the communication with the urinary bladder during surgery. Excision of the fistula (dorsal urethra) was carried out through two incisions (coronal, base of the penis) to the pubic symphysis, where the fistula was ligated with a purse-string ligature. A sample for pathohistological diagnosis (PHD) showed that it was a fistulous canal superficially covered with non-keratinized squamous epithelium and surrounded by connective-muscular stroma. Functional and surgical results were satisfying with good continence.

Conclusion: Anatomical anomalies of this kind are a rare occurrence that can manifest in various forms. A thorough examination and early diagnostic workup lead to better treatment outcomes and ultimately improve the quality of life.

Keywords: Embryology; Fistula; Urethra

CR187

Cytomegalovirus Colitis: Impact of Immunosuppression after Kidney Transplantation

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Introduction: Diarrhea is a common occurrence in patients following kidney transplantation. The causes often lie in immunosuppression, leading to opportunistic infections. Accurate diagnostic evaluation is pivotal for identifying the underlying causes and guiding targeted interventions.

Case report: A 68-year-old female patient presented with deteriorating kidney graft function and diarrhea. In 2013, she underwent deceased donor kidney transplantation. Her maintenance immunosuppressive protocol included tacrolimus, mycophenolate, and dexamethasone. The post-transplant course involved borderline acute cellular graft rejection and recurring urinary tract infections. At admission she had further graft function deterioration, increased inflammatory markers, and reported gastroenterocolitis symptoms. The diagnostic workup was expanded to investigate the source of infection/occult neoplasm. Colonoscopy identified colonic changes at various sites, and multiple biopsies were performed. The histopathological diagnosis revealed disrupted intestinal architecture, mixed inflammatory infiltrate, and numerous cytomegalovirus (CMV) inclusions in endothelial cells and fibroblasts. The CMV DNA (deoxyribonucleic acid) PCR (polymerase chain reaction) result of 134,535 viral copies and other findings confirmed CMV disease. Ganciclovir therapy has been initiated and adjusted based on kidney function with regular administration of CMV-specific immunoglobulin (Cytotect) twice a week. Subsequently, febrile episodes and diarrheal stools relapsed. Increased dose of ganciclovir resulted with regression of symptoms and negative CMV DNA.

Conclusion: Diarrhea is a common concern in post-transplant patients. Emphasizing the significance of colonoscopy in its diagnosis is crucial for determining the optimal therapy dosage and intensity, especially within the context of immunosuppression and suspected CMV-related diarrhea.

Keywords: Colonoscopies; Cytomegalovirus Colitis; Ganciclovir; Renal Transplantation

CR188

Case report: Epstein-Barr virus reactivation as a potential trigger of autoimmune hepatitis

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Introduction: Epstein-Barr virus (EBV), also known as human herpesvirus 4, is the most common cause of infectious mononucleosis but could also be an inductor of several malignancies. Autoimmune hepatitis (AIH) is a chronic, inflammatory disease of the liver characterized by hypergammaglobulinemia which could progress to liver cirrhosis. This case report aims to show patient with atypical etiopathology of autoimmune hepatitis.

Case report: A 24-year-old female patient presented with fever of 38,5°C followed by fatigue. She was admitted to Merkur University Hospital where serological testing revealed EBV reactivation for the third time in two years. Initial therapy included virostatic agent valganciclovir which led to remission of viral replication. Although asymptomatic, later laboratory workup revealed elevated alanine and aspartate transaminases (703 U/l, 791 U/l), gamma-glutamyl transferase (128 U/l) and alkaline phosphatase (121 U/l). In circumstances of maintained elevated levels of liver enzymes and inconclusive morphological findings on magnetic resonance cholangiopancreatography, a liver biopsy was indicated. Histopathological analysis showed piecemeal necrosis of periportal hepatocytes without visible fibrosis. The Ishak modified hepatic activity index was 9/18 which, in combination with hypergammaglobulinemia and negativity of specific AIH antibodies, suspected autoimmune hepatitis triggered by EBV reactivation. Therapeutic regime included corticosteroid therapy which resulted in a decrease in liver transferases and improvement in pathohistological findings. Afterwards, the patient has been in good clinical condition and regularly followed up every 2 months.

Conclusion: Autoimmune hepatitis induced by EBV reactivation is a rare clinical manifestation with a likely chance of being misinterpreted. This case emphasizes the significance of perceiving atypical inductors of autoimmune hepatitis to set up correct therapeutic protocol.

Keywords: Hepatitis, Autoimmune; Herpesvirus 4, Human; Hypergammaglobulinemia

CR189

Presentation and Diagnosis of Hereditary Polyneuropathy with Pressure Palsies in a Prior Asymptomatic Patient

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Introduction: Hereditary neuropathy with pressure palsies (HNPP) is an inherited condition that affects the peripheral nerves. It causes numbness, tingling and muscle weakness in the limbs.

Case report: A 15-year-old was admitted to the Department of Pediatrics in Osijek after an electromyoneurography (EMNG) revealed severe, axonal sensorimotor polyneuropathy with demyelinating features. He presented with loss of feeling, weakness, tingling and reduced mobility of left medial forearm, pointing to ulnar nerve lesion. Two months prior, he had spent several hours in uncomfortable positions returning from an excursion and felt symptoms upon arriving home. Lab results showed no significant results other than vitamin B9 and B12 deficiency. Lumbar puncture was performed, and cerebrospinal fluid analysis showed no signs of autoimmune or inflammatory disease. Visual evoked potentials showed no signs of neurological pathologies. He was released in an improved state and physical therapy was recommended. After release, head magnetic resonance imaging was performed, no pathomorphological substrate or signs of lesions were seen. After several months, genetic testing results revealed a deletion of PMP-22 gene of the 17th chromosome that point to a diagnosis of HNPP. Further folic acid and cobalamin level controls are required, as well as abstaining from physical exhaustion. Control EMNG every couple of years was also recommended.

Conclusion: HNPP is a rare neurological condition and is rather difficult to diagnose, as genetic testing is the only definitive diagnosis method. It is incurable and sooner diagnosis may help with improving the patient's quality of life.

Keywords: Genetic Testing; Polyneuropathies; Spinal Puncture

CR190

Horseshoe kidney infarction and intestinal gangrene in a patient with atrial fibrillation: a case report

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Introduction: Renal infarction (RI) is a rare ischemic event caused by an occlusion of the renal artery, which leads to necrosis and renal failure. It mostly occurs due to thromboemboli with cardiac origin. Patients may have a history of atrial fibrillation (AF), the commonest cardiac arrhythmia that increases the risk of thromboembolism. If untreated, AF can lead to infarctions of other organs.

Case report: A 62-year-old patient presented to the emergency department (ED) with epigastric pain and vomiting which started a day before admission. Patient's medical history revealed AF and cardiomyopathy. Laboratory findings showed leukocytosis, elevated C-reactive protein, troponin, urea and creatinine levels. Computed tomography angiography of the abdominal aorta with contrast was performed, revealing occlusion of segmental left renal artery of the horseshoe kidney with ischemic area measuring 65x29x36mm. The patient declined hospitalization and was prescribed enoxaparin and amoxicillin with clavulanic acid for 4 days and was advised to return for another appointment, which he skipped. After 10 days patient returned to the ED with severe diffuse abdominal pain, fatigue and tachycardia. Patient was administered analgetics, spasmolytics and amiodarone and was moved to the intensive care unit. Laboratory findings showed elevated lactate dehydrogenase and D-dimer levels indicative of infarction. Emergency aortography showed acute embolization of the superior mesenteric artery. Surgery was indicated and explorative laparotomy was performed. Gangrene of the entire small intestine except for the proximal jejunum with right colon and colon transversum was discovered. Patient was closed with stitches. Palliative care with morphine and tramadol was prescribed. The patient died shortly after.

Conclusion: We emphasize the importance of early diagnosis and treatment of AF, as many risk factors are controllable today, thus reducing mortality rates.

Keywords: Atrial Fibrillation; Horseshoe Kidney; Intestinal Failure

CR191

Urgent vitrectomy for a diabetic patient with severe endogenous endophthalmitis- case report

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Introduction: Endogenous endophthalmitis is a severe intraocular infection of all layers resulting from the hematogenous spread of pathogens, typically occurring in predisposed individuals (including immunosuppressed individuals and diabetics) following trauma or surgery, potentially leading to vision-threatening complications if not promptly diagnosed and treated. The prevalence ranges from approximately 2% to 8% of all cases of endophthalmitis.

Case report: We present a case of 70-year-old woman with diabetes and rheumatoid arthritis presented urgently to the Department of Ophthalmology in Osijek. The patient reported photophobia and severely impaired visual acuity, unable to perceive hand motion. Clinical examination revealed elevated intraocular pressure, ciliary injection, and hypopyon in the anterior chamber. Notably, the patient had no prior ophthalmologic history, and her diabetes had not been promptly treated. Conjunctival swab yielded sterile results, eye liquor, microbiological and vitreous samples were sterile and an ultrasound was performed due to decreased transparency of the anterior segment, allowing visualization of deeper structures. It confirmed panuveitis with an intact retina. However, further diagnostics didn't reveal a primary infection focus. Laboratory investigations were within normal limits. Prompt intervention included the administration of adjuvant antibiotics followed by urgent vitrectomy to salvage the eye and prevent further vision loss. Close monitoring and post-operative care were implemented to ensure optimal recovery and visual outcomes for the patient.

Conclusion: Endogenous endophthalmitis, though rare, demands swift diagnosis and treatment due to its severity. This case underscores the importance of vigilance and rapid intervention in managing this potentially sight-threatening condition.

Keywords: Diabetes mellitus; Endophthalmitis; Vitrectomy

CR192

Forearm Perforative Flap in a Patient with Rheumatoid Arthritis

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Introduction: Pedicled flaps involve transferring tissue from one body part to another by rotating around a preserved vascular pedicle. This reconstructive surgery technique ensures a sustained blood supply, promoting optimal healing and functionality. The Becker flap, perfused by the ascending branch of the dorsal ulnar artery, facilitates hand reconstruction without compromising a major vascular axis.

Case report: A 64-year-old male with a history of treated rheumatoid arthritis and other comorbidities is admitted to the hospital due to chronic wounds on the right forearm. Two persistent dorsal wrist defects are noted: one 3x3 cm, exposing the ulnar head proximally, and another 4x4 cm, exposing distal extensor tendons; both without acute infection signs. Distal wrist necrosis is observed. The patient exhibits partial pronation, supination, and finger extension, with arthritis-induced changes in both hands. Nerve conduction studies are unremarkable, and the Allen test indicates no collateral circulation of the ulnar artery. CT angiography reveals patent ulnar and interosseous arteries. The planned surgical procedure involves neurectomy, debridement, and the use of a distally-based ulnar septal perforator transpositional flap to cover both defects. The flap is sutured in place with excess tissue left at the flap's rotation point, and a Thiersch skin graft addresses the secondary defect. Postoperative care includes ciprofloxacin and vancomycin therapy. The patient is afebrile at discharge, with no signs of infection of the flap or wound.

Conclusion: The Becker flap is a valuable option for hand soft tissue defect coverage. This single-stage technique for fasciocutaneous reconstruction ensures early rehabilitation with decreased morbidity.

Keywords: Arthritis, Rheumatoid; Debridement; Surgery, Reconstructive; Surgical Flaps

CR193

A Rectovaginal Fistula and Perianal fistula caused by Perianal abscess: presentation of surgical treatment

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Introduction: A rectovaginal fistula is an abnormal connection between the rectum and vagina. Fistulas can be diagnosed by pelvic examination or imaging. We present a case of surgical correction of rectovaginal fistula not visualized by CT or MRI.

Case report: A 41-year-old female presented with foul-smelling vaginal discharge and fecal leakage through the vagina. Her medical history included a perianal abscess incision. On examination, no fistula opening was evident, however, dark discharge was seen on speculum. An MRI visualized fistula ending blindly. Because symptoms persisted, contrast-enhanced MSCT of colon was performed. No extravasation of contrast agent from rectal lumen was seen. Since imaging techniques could not visualize the fistula, a methylene blue test was performed. Methylene blue was instilled into the rectum and a gauze was inserted into the vagina. Blue staining of the gauze confirmed the existence of a fistula between the rectum and vagina. During the operation, rectovaginal and transsphincteric anocutaneous fistula were identified. The rectovaginal fistula was cut, and the defect was closed utilizing a flap of tissue taken from the labia majora (Martius flap). Upper end of the perianal fistula was excised, while a draining seton was placed at the lower end to avoid external anal sphincter fistulotomy. Follow-up after 6 months revealed appropriate anogenital anatomy with minor loss of sensation.

Conclusion: As presented, rectovaginal fistulas are not always easily recognized. If untreated, fistulas can lead to complications, thus it is important to continue investigation until the diagnosis is made. This case represents minimally invasive way of correcting such defects.

Keywords: rectovaginal fistula; surgical flaps; vaginal discharge

CR194

„Diamonds are forever “– Use of bioactive glass (S53P4) in revision tympano-mastoidectomy

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Introduction: Chronic otitis media, with or without cholesteatoma, affect a great number of adults and children around the world. Initial therapy consists of aural toilet and antibiotic drops, while the majority of cases will require repeated surgical treatment, entailing various extent of tympanomastoidectomy procedures. This form of treatment may require revision surgery due to recurrent or recidivant disease. Revision surgery may be improved by using bioactive glass S53P4 (BAG S53P4), a material resistant to reinfection, cholesteatoma adherence and radiolucent, while being biologically inert.

Case report: We present two cases where BAG S53P4 was used. The first case involves a man with four previous surgical procedures due to chronic otitis media complications, resulting with a large trephination cavity created due to a wide mastoidectomy. In the second case, a pediatric patient presented with extensive cholesteatoma and posterior external ear canal destruction. During follow-up, both patients showed excellent functional results and recovered well.

Conclusion: S53P4 has just recently started being used in otological procedures with aim of eliminating mastoid cavities that are difficult to clean and show repeated infection. S53P4 along with obliteration of the mastoid cavity has antimicrobial properties owing to increase in local pH and osmotic pressure creating a hostile environment that impedes growth of bacteria such as MRSA, and *Pseudomonas aeruginosa*. S53P4 does not interfere with computerized tomography or magnetic resonance imaging use and is easily distinguished from the surrounding tissue in case there is a relapse of cholesteatoma. Bioactive glass S53P4 has shown remarkable results in various areas across medicine due to its unique properties, and its use in otologic procedures shows remarkable potential.

Keywords: Cholesteatoma; Glass; Otitis media

CR195

Odontogenic atypical skull base osteomyelitis in diabetic male presenting as unilateral headache and blindness – a case of diagnostic adversity

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Introduction: Atypical skull base osteomyelitis is an infection of the central skull base caused by bacteria and fungi originating from the nose and paranasal sinuses. The following case will illustrate the adversities of establishing a diagnosis.

Case report: A 53-year-old patient presented with seven month long pulsating headache affecting his left periorbital and orbital area. The headache started after dental implantation. Initially, the patient was unsuccessfully treated for trigeminal neuralgia. The dental implants were subsequently removed, however the symptoms remained. Furthermore, he lost vision in his left eye. A computed tomography (CT) scan showed an infiltrative lesion in the left cavernous sinus, orbital apex and lateral sphenoid sinus wall. Therefore, a transsphenoidal biopsy was performed ruling out neoplasm. The material contained inflammatory cells without granulomas. Blood work showed increased HbA1c (7,4), C-reactive protein (50) and leukocytes (11,1). Thus, a working diagnosis of Tolosa-Hunt syndrome was treated with intravenous methylprednisolone(1x1g) for five days without improvement. Consequently, empiric Meropenem (3x2g) and Vancomycin (3x1g) were started. More material taken for polymerase chain reaction (PCR) analysis detected *Citrobacter koseri*, considered to be contamination. A third biopsy was performed for tuberculosis and fungal analysis, during which a droplet of pus was observed. Additionally, empiric amphotericin (1x0.825g) was started. PCR and sinus aspirate analysis were positive for *Aspergillus* spp., and the patient was transferred to the infectious disease hospital.

Conclusion: To conclude, the cause is a fungal infection. The differential diagnosis for this patient was extensive and a total of eleven specialists were consulted. Diagnosing this condition can be demanding. The patient is currently undergoing treatment, and the outcome is uncertain.

Keywords: Dental Implants; Invasive Fungal Infections; Osteomyelitis; Skull Base; Tolosa-Hunt Syndrome

CR196

Dermatopolymyositis or a psoriatic arthritis: case report

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Introduction: Dermatopolymyositis (DPM) is a rare autoimmune condition including inflammatory myopathies with cutaneous involvement. Organs such as the lungs, heart, and esophagus may also be affected. The estimated incidence of DPM is less than 8 cases per million, with high mortality rate if not treated. Common characteristics include proximal muscle weakness, muscle inflammation, and skin rash.

Case report: We present a case of previously healthy 59-year-old female patient administered to the Department of Rheumatology, Clinical Immunology and Allergology due to suspicion of psoriatic arthritis. Three months prior hospitalization, the patient presented with red lesions on dorsum of the hand, neck and thighs accompanied with pain in small joints. Upon hospitalization, symmetrical proximal muscle weakness of upper and lower extremities was present. Initial laboratory and serology findings revealed high levels of creatinine-kinase and aldolase with positive anti-CMV and anti-EBV IgG. Electro-myoneurography (EMNG) of upper and lower extremities was indicated which described myopathic changes more pronounced in proximal muscles. Blood work for myositis specific antibodies was performed and tested positive for Mi-2-alfa and Mi-2-beta which, accompanied with clinical presentation and EMNG findings lead to the correct diagnosis of DPM. The patient received systemic methylprednisolone during hospitalization, continued with oral methylprednisolone and additional immuno-suppressive therapy of azathioprine after release. In laboratory, reduction of muscle enzymes was observed, however, elevated transaminases, as a result of azathioprine, was shown. Thus, the correction of pharma-cotherapy along with additional physical therapy was recommended after which the patient showed regression of all the symptoms

Conclusion: This case shows that early diagnosis and the timely application of immunosuppressive therapy can improve the quality of life and prognosis among the patients with DPM.

Keywords: Dermatomyositis; immunosuppressive agents; steroids

CR197

Oropharyngeal dysphagia in statin-induced myositis – a case report

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Introduction: Myopathy is one of the common side effects of statins. In some patients, they can cause autoimmune myositis (AM), a rare condition, with prevalence of 1:100 000. AM is a rheumatologic disorder characterized with inflammation and weakness of muscles.

Case report: A 63-year-old patient with arterial hypertension, diabetes mellitus type 2, Parkinson's disease, who overcame acute myocardial infarction and aneurysm of abdominal aorta surgery, was hospitalized in the Clinic of Infectology in May 2023 because of febrility and proximal muscle weakness. He had a combination of atorvastatin and ezetimibe in chronic therapy. The statin-induced myositis was suspected. He received methylprednisolone 1 mg/kg for 3 days. Electromyoneurography confirmed a myopathic pattern. He was transferred to the Department of Rheumatology. Despite pharmacotherapy, the patient had worsening of symptoms with oropharyngeal dysphagia as a result. The therapy was continued with methylprednisolone 500 mg in bolus for 3 days with additional immunomodulatory therapy (intravenous immunoglobulins and mycophenolate-mofetil). It resulted with improvement of symptoms. The malignant disease was ruled out. After hospitalization, muscle strength was recovered. The immunological laboratory findings showed positive anti-nuclear factor, while other immunological components were negative (MSA, ENA-screen, anti-dsDNA, c/p-ANCA, AMA-M2, LMK1, LC1, anti-CCP). The biopsy of muscle tissue confirmed statin-myopathy in the recovery phase.

Conclusion: Oropharyngeal dysphagia is a serious complication of inflammatory myositis that requires nasogastric intubation. It represents a therapeutic challenge because it demands high doses of gluco-corticoids and immunomodulatory therapy.

Keywords: Atorvastatin; Ezetimibe; Myositis

CR198

Genetic background of neonatal seizures: KCNQ2 channelopathy

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Introduction: Neonatal seizures are characterized by the abnormal alteration of electrographic activity, with diverse causes such as metabolic, structural, and genetic anomalies. KCNQ2 channelopathy stems from KCNQ2 gene abnormalities, manifesting in a spectrum of phenotypes, from familial neonatal epilepsy to severe neonatal-onset developmental epileptic encephalopathy.

Case report: A hypertrophic, full-term male newborn was admitted to a level two Neonatal Intensive Care Unit (NICU) due to distressing seizure-like episodes featuring limb jerks, bulbar deviation, and apneic periods, starting on the second day of life. Following phenobarbitone administration, the newborn was transferred to a level four NICU. Seizure cessation was noted during the next two days. Metabolic panel test results were normal, and central nervous system (CNS) infection was excluded. Cranial ultrasound, magnetic resonance imaging (MRI), and amplitude-integrated electroencephalography were unremarkable. Paternal family history was positive for early-onset epilepsy. On the fifth day, the newborn continued to experience seizures despite treatment with pyridoxine and re-administration of phenobarbitone. Continuous video-electroencephalography monitoring revealed distinctive electroclinical seizures with sharp transients, bilateral spike-and-wave complexes, and rhythmic stereotyped discharges correlating with the described clinical manifestations. Subsequent treatment with levetiracetam and midazolam resulted in seizure cessation. Genetic testing identified a heterozygous frameshift mutation (p.Arg871GlyfsTer61) in the KCNQ2 gene. Following KCNQ2 channelopathy diagnosis, carbamazepine was started, providing a long-term seizure-free period. The patient was discharged at four weeks of life with normal neurological status. Neuropediatric monitoring was advised.

Conclusion: This case stresses the complexity of neonatal seizures, emphasizing the need for a comprehensive approach to diagnosis and management. Early etiological identification facilitates targeted therapeutic interventions and improves neuro-developmental outcomes.

Keywords: Channelopathies; Electroencephalography; Neonatology; Seizures

CR199

Grade 3 supracondylar fracture of the humerus with entrapment of the brachial artery – Case report

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Introduction: Supracondylar fractures are common in children. There are several classifications, but the most common is the one according to Gartland, according to which we have 3 types.

Case report: A 9-year-old boy came to the pediatric surgery clinic after falling from a wall with pain in the right arm. The physical examination shows edema and deformity of the right elbow with limited movements and the patient complains of tingling and pain. X-ray is taken and it shows a supracondylar fracture with displacement (Gartland 3). The boy is operated on the same day. Repositioning of the fracture is performed operatively, and the fracture fragments are fixed with 2 Kirschner wires. After the operation, pallor of the hand was observed, there was absence of pulse of the radial artery and oxygen saturation could not be measured. An urgent computed tomography (CT) peripheral angiography was performed which showed brachial artery up to the height of the distal 1/3 of the humerus, where there is no further view of the brachial artery. The radial and ulnar arteries are shown along their entire length. On the same day, decompression of the brachial artery is performed.

Conclusion: Complications after a fracture can be early and late, and they can be a result of trauma or iatrogenic. One of the early complications is entrapment of the brachial artery, and in the case of such complications, it is important to diagnose and to surgically release the artery as soon as possible.

Keywords: Arm Injuries; Brachial Artery; Computed Tomography Angiography

CR200

TDAP flap in reconstruction of a severe post-burn contracture of the axillary region - a case report

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Introduction: Post-burn contractures in the axillary region can severely limit upper limb range of motion, significantly impacting patients' daily lives. Surgical intervention aims to restore complete shoulder motion with minimal anatomic distortion and improved aesthetics. In extensive axillary contractures, a combination of techniques is often necessary, considering scar patterns and surrounding tissue conditions. The thoracodorsal artery-based flap (TDAP) proves valuable for severe axillary contractures where local flaps are impractical.

Case report: We present a case of a 38-year-old male with limited left arm abduction (70 degrees) due to a burn injury managed with split-thickness skin grafting, resulting in severe shoulder contracture and scarring. Classified as type Ib, the contracture was treated with complete scar tissue excision and coverage using a TDAP island flap. The use of a local flap was written off because it would involve transposition of hair bearing area to the back and arm, which is unacceptable. Preoperative Doppler ultrasound marked the septocutaneous perforator, and post-excision, intraoperative identification ensured proper release. An 8cm pedicle facilitated flap rotation (90 degrees) for defect coverage. A split-thickness skin graft reduced tension on the pedicle. Early postoperative period was uneventful. Physical therapy began after three days, achieving full abduction and elevation (120 degrees) within one month.

Conclusion: The use of island flaps in the treatment of post-burn axillary contractures eliminates the need for prolonged splinting and enables early postoperative rehabilitation. In this case, we showed that the TDAP provides a thin and pliable tissue coverage with a safe vascular supply. It can be, as well, used in combination with other techniques to achieve an optimal result.

Keywords: Contracture; Flap; Reconstruction; Shoulder

CR201

Use of Double Keystone Flap for Basal Cell Carcinoma in a Patient with Low Ejection Fraction

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Introduction: The keystone flap (KF) is a fasciocutaneous flap supplied by perforating arteries. It is a simple and reliable technique for closing defects after skin cancer removal, particularly on the lower extremities. Moreover, it is suitable for elderly patients with comorbidities due to its safety, minimal morbidity, and reduced need for microsurgical techniques and prolonged procedures. The double keystone flap (DKF) is a type of KF composed of two opposing flaps designed around a central surgical defect.

Case report: An 83-year-old male patient was admitted to the Department of Dermatology and Venereology in September 2023 due to an oval ulceration in the projection of the Achilles tendon of the left lower leg measuring 4x2 cm, which had appeared two years before admission. The histopathological analysis of the tumor biopsy revealed basal cell carcinoma (BCC). In December 2023, the patient was admitted to the Department of Plastic and Reconstructive Surgery for the surgical treatment of BCC. Given the patient's low ejection fraction (EF=30%), local anesthesia was preferred over general anesthesia. BCC was removed by elliptical excision, and bilateral flaps were constructed, sparing the vascular perforators. Flaps on both sides, matching the defect's width, were marked. Each corner of the flaps formed a 90° angle, resulting in a final shape of arched trapezoids, resembling a keystone. V-Y advancement of both flaps was performed for closure. Postoperatively, the patient's recovery was uneventful, leading to discharge the following day with immobilization, analgesics, antithrombotic therapy, and a seven-day regimen of antibiotics. The patient is scheduled for follow-up examinations.

Conclusion: In patients with low EF, the DKF is a favorable alternative for reconstructing lower limb defects, offering advantages over other flap and graft options.

Keywords: Basal cell carcinoma; Perforator Flap; Surgical Flaps

CR202

Chondrosarcoma of the Sternum: Surgical Challenges, Chest Wall Reconstruction and Postoperative Management

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Introduction: Although rare, primary chondrosarcoma is the most frequent malignant tumor of the sternum. It commonly manifests as a painful, expanding mass arising from the costochondrosternal junction. Since it is resistant to radiotherapy and chemotherapy, surgical resection with reconstruction is the preferred treatment.

Case report: A 50-year-old male presented with swelling over the left fourth sternocostal joint, gradually increasing in size. Imaging and clinical assessment suggested a benign infiltrative neoplasm and surgical resection was indicated. The patient underwent partial sternectomy including resection of the xiphoid process and costal cartilages II to VII and partial resection of the manubrium. Postoperative pathohistological analysis specified the change as a low grade chondrosarcoma in pT1 stage. Chest wall reconstruction involved three pectus bars fixated around the ribs and placing of a synthetic polypropylene mesh. The patient required postoperative rehospitalization due to partial skin layer wound dehiscence, serous drainage and fever. Empirical antibiotic therapy was initiated and the patient underwent a median superior laparotomy with partial omentoplasty of the sternal region, preserving the mesh and pectus bars. A culture analysis revealed Methicillin-Resistant Staphylo-coccus epidermidis (MRSE) and postoperative antibiotic therapy was adapted to the antibiogram. Subsequently, all parameters of inflammation decreased and wound healing per primam intentionem followed. A one-year follow-up computed tomography showed no disease recurrence.

Conclusion: This case highlights the intricate surgical management that contributed to the successful treatment of sternal chondrosarcoma. Sternal wound infection, a severe postoperative complication with a high mortality rate requires prompt identification, precise revision with culture-directed antibiotics and effort to preserve the prosthetic material.

Keywords: Chondrosarcoma; Postoperative Complications; Plastic Surgery Procedures; Sternum

CR203

A long road for each centimeter: a case of severe and treatment-refractory ulcerative colitis

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Introduction: Inflammatory bowel disease is a chronic illness, treatment of which, involves a personalized approach, including lifestyle changes, multiple lines of medication, and surgical intervention.

Case report: We present a 63-year-old patient who was hospitalized due to an exacerbation of previously diagnosed ulcerative colitis with consequent anemia, hypoproteinemia, and electrolyte imbalance. He was previously treated with vancomycin for superimposed *Clostridioides difficile* enterocolitis. Considering the clinical and endoscopic severity of the disease (Mayo score 12, Mayo endoscopic score 3) and an inadequate response to combined corticosteroid and aminosalicylate therapy, infliximab (5 mg/kg, later escalated to 10 mg/kg, respectively) with azathioprine were introduced. The co-urse of treatment was further complicated by recurrent *Clostridioides difficile* enterocolitis, which required fecal microbiota transplantation. A control colonoscopy showed a multitude of pseudopolyps as well as rectal stenosis 3 cm in length with fibrous areas. A biopsy showed no signs of malignancy. The stenosis was then successfully treated by a series of endoscopic balloon dilations. Upon the repeated finding of a low concentration of infliximab with a high antibody titer, the therapy was stopped, and ustekinumab was introduced in an induction dose of 390 mg i.v., and then in a maintenance dose of 90 mg every eight weeks, resulting in clinical and endoscopic improvement. Currently, there are no signs of disease progression.

Conclusion: This case highlights the formidable challenges of severe UC (ulcerative colitis) with a rare presentation of stenosis, emphasizing the importance of personalized and vigilant management.

Keywords: Biological Therapy; *Clostridioides difficile*; Fecal Microbiota Transplantation; Inflammatory Bowel Diseases

CR204

Contact Dermatitis Meets Palmoplantar Psoriasis

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Introduction: Dermatoses such as contact dermatitis, dermatomycoses and psoriasis frequently affect the skin of palms and soles due to its daily exposure to external factors. This hampers day-to-day functioning and impairs life quality. Moreover, treating these changes is often challenging due to their specific localization. This case report showcases a patient simultaneously presenting with two common palmoplantar dermatoses: contact dermatitis (CD) and palmoplantar psoriasis (PPP).

Case report: In 2018 a 26-year-old female lab technician suffering from asthma and allergic rhinitis came to the dermatology clinic presenting with hyperkeratotic erythematous lesions on her hands with ragades forming. The epicutaneous test returned positive for nickel-sulfate, thimerosal and cobalt-chloride. Her family anamnesis is positive to atopy, but negative to psoriasis. Based on these findings, a CD diagnosis was established. In 2023 the patient returned to the clinic, now with well demarcated erythematous squamous lesions on her hands, edematous fingers, and significant nail dystrophy. The pathological examination confirmed PPP. Due to a mild contracture of the 4th and 5th finger of her right hand and bilaterally weakened grip, she was referred to a rheumatologist with suspected psoriatic arthritis, however further examination ruled it out. Treatment options for both skin illnesses include topical corticosteroids, phototherapy and methotrexate, which is selected here for its effectiveness, considering the patient's prior unsatisfactory results with the application of topical therapy and phototherapy.

Conclusion: The reported case highlights shared clinical features between PPP and CD, which, alongside their mutual influence on each other's course and clinical presentation, makes it difficult to differentiate between the two. This emphasizes the need for vigilance in diagnosis and treatment decisions.

Keywords: Contact Dermatitis; Nail Dystrophy; Psoriasis; Psoriatic Arthritis

CR205

Skin presentation of blastic plasmacytoid dendritic cell neoplasm – rare haematological cancer

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Introduction: Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is a rare hematologic malignancy arising from plasmacytoid dendritic cell precursor. It primarily affects older males and most commonly presents as skin lesions. This case report aims to show a rare type of cancer and its presentation.

Case report: Patient was diagnosed with myeloproliferative neoplasm (MPN) in 2011, at the age of 68. At first, presented dominantly as essential thrombo-cytosis but in 2016 transformed to polycythemia vera. In both cases he was treated with hydroxyurea. Over time he developed atrial fibrillation and mild stroke from which he recovered completely. In 2023 (at the age of 80) he presented with a livid formation on the front abdominal wall above the skin level, 3 cm in diameter. Biopsy confirmed it was BPDCN. Bone marrow biopsy showed atypical myeloblasts, less than 5%, in accordance with MPN. Since there were no signs of systemic disease, BPDCN was treated with cortico-steroids and 10 fractions of radiotherapy. During radio-therapy, partial respiratory insufficiency developed, and computed tomography scan showed bilateral lung infiltrates. Due to the high suspicion of dissemination of BPDCN, a bronchoscopy was performed, but malignant cells were not isolated. Severe respiratory infections complicated the patient's condition. Ultimately, the outcome was fatal.

Conclusion: BPDCN, besides cutaneous presentation, disseminates to the bone marrow, lymph nodes, central nervous system, and lungs, which is a probable explanation for the bilateral pulmonary infiltration. The prognosis is generally poor due to the high risk of disease recurrence and systemic dissemination.

Keywords: Biopsy; Haematologic neoplasms; Hydro-xyurea

CR206

Uncommon presentation of systemic lupus erythematosus in 46-year-old patient with newfound mitral regurgitation

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Introduction: Libman-Sacks endocarditis (LSE) is a nonbacterial thrombotic endocarditis involving sterile vegetations on the cardiac valves. Patients are typically asymptomatic, showing manifestations of the underlying disease; most commonly malignancy, systemic lupus erythematosus (SLE), or antiphospholipid syndrome (APS). Rare symptoms of LSE are embolism and heart valve dysfunction.

Case report: A 46-year-old female patient, recently recovered from pulmonary embolism, was admitted to the neurology ward following symptoms of a transient ischemic attack and severe dyspnoea. An echo-cardiogram showed severe mitral regurgitation and a homogeneous 13x14 mm mass. Inflammatory markers were normal and hemoculture was negative. Following continued deterioration of the patient's state, coupled with high risk of embolism, an emergency mitral valve replacement was performed using a mechanical valve. Three days later, 700 mL of serous effusion was evacuated from the pericardium. Antinuclear antibody test was positive, with high antiphospholipid antibody titer and complement depletion. The patient was diagnosed with active SLE and APS. Treatment with glucocorticoids and an antimalarial was introduced. Two months later, following cardiac tamponade caused by serous pericardial effusion due to pericarditis in active SLE, the patient was hospitalised, azathioprine and intravenous immunoglobulin therapy were added. Since then, the patient has suffered 3 incidents of pericardial effusion during the next 2 years.

Conclusion: LSE is more common in patients with SLE and APS, and can cause cerebrovascular and systemic embolism, though this is an exceedingly rare initial presentation. This report demonstrates how an interdisciplinary approach, with a broad diagnostic sense, can greatly benefit the patient.

Keywords: Antiphospholipid syndrome; Mitral Valve Insufficiency; Pericardial Effusion; Systemic Lupus Erythematosus

CR207

Different reactions of psychological functioning after the Belgrade incident

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Introduction: Certainly, peer violence, auto-aggressive and hetero-aggressive behaviour among youth have been significantly expressed in the last ten years, along with an emphasis on aggressive behaviour at an earlier age, as indicated by the case in Belgrade where a child committed multiple murders. Media reports sparked children's reactions expressing similar intentions and plans, which led to an urgent referral to the psychiatry department.

Case report: This case report aims to point out two opposite reactions to the event in Belgrade in such a way that the first patient expressed similar ideas, frequently presenting various risky experiences and plans to harm herself or others. In such a case, it is hard to detect the line between attracting attention and crossing the line leading to the plan realization. On the other hand, another patient was referred for the same reason but showed the diametrically opposite reaction in the way that he withdraws into himself, refuses communication, keeps his emotions inside himself, lethargic posture, spends most of his time in bed and sleeping with unusual listening to classical music, which he occasionally uses as a provocation for other patients. At first sight, he doesn't indicate that he could make any impulsive plan or reaction, unlike the first patient.

Conclusion: The event in Belgrade prompted the opening of new possible cases in which every patient reacted differently so it imposed on experts whether calmness, withdrawal and silence are one step before the explosion of accumulated aggression. Therefore, it is necessary to adapt the approach to each child and carefully avoid encouraging them to suppress aggression and accumulation of negative experiences that can ultimately lead to such tragic outcomes.

Keywords: adolescent; aggression; homicide

CR208

Tissue Defect Treatment: Dermal Substitute and Thiersch Graft in Necrotizing Fasciitis – A Case Report

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Introduction: Necrotizing fasciitis is a rare, aggressive bacterial infection affecting soft tissues, marked by rapid progression and tissue necrosis. Primarily caused by beta-hemolytic streptococci, it demands immediate intervention. This paper explores chronic wound reconstruction resulting from necrotizing fasciitis.

Case report: This case report highlights a 40-year-old male patient with no prior comorbidities seeking emergency care due to a leg wound. Following the initial examination, the patient was hospitalized with clinical signs of foot cellulitis, accompanied by elevated inflammatory markers and body temperature. Empirical broad-spectrum antibiotic therapy was initiated, but the infection progressed to necrotizing fasciitis. Treatment involved radical surgical debridement and Negative Pressure Wound Therapy (NPWT). Group A beta-hemolytic streptococci were isolated from the sample taken for microbiological analysis, after which targeted antibiotic therapy was started. It is particularly interesting that an epidemic of streptococci occurred in the patient's children's kindergarten. The patient stated that two days before being admitted to the hospital, he had a minor foot injury, which is a possible entry point for the airborne transmission of the bacteria. After infection control, tissue defect reconstruction utilized Matriderm (a dermal substitute) and a partial-thickness skin graft following the Thiersch technique.

Conclusion: This case underscores the critical nature of necrotizing fasciitis, highlighting the imperative for prompt interventions and a multifaceted therapeutic strategy to curb infection and impede progression. Furthermore, the tissue defect reconstruction using dermal substitute and Thiersch's partial-thickness skin graft proved highly successful. This emphasizes the efficacy of such reconstructive measures in addressing the sequelae of necrotizing fasciitis.

Keywords: Fasciitis, Necrotizing; Surgery, Plastic; Skin Transplantation; Soft Tissue Infections; Streptococcus pyogenes

CR209

Acquired hemophilia A: a case report

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Introduction: Acquired hemophilia A (AHA) is a rare, acquired coagulation disorder caused by the development of autoantibodies against factor VIII. It is an urgent condition, posing a risk of life-threatening bleeding. The aim of this case report is to describe the characteristics and treatment approach of AHA.

Case report: We present a 73-year-old patient who was hospitalized in January 2021 due to SARS-CoV-2 bilateral pneumonia. Upon admission, there were no signs of hemorrhagic diathesis, but laboratory findings revealed prolonged activated partial thromboplastin clotting time. The patient was treated with ceftriaxone, dexamethasone, proton pump inhibitors, and nadroparin in prophylactic doses. He was discharged after 11 days. On March 6th, the patient was presented to the Emergency room (ER) with swelling in both lower legs and diffuse suffusions on the right shoulder and left leg. Deep venous thrombosis was ruled out, and enoxaparin was initiated as therapy. Two days later, the patient returned to the ER due to the appearance of ecchymosis throughout the body. Enoxaparin was discontinued. The patient, with worsening ecchymosis and suffusions, was referred to the Hematology clinic on April 29, 2021. Diagnostic workup established AHA. Treatment included activated prothrombin complex bolus injections over three days, methylprednisolone 1-1.5 mg/kg, and oral cyclophosphamide. Further diagnostic workup did not identify malignant disease.

Conclusion: Acquired coagulation disorders are rare and frequently recognized late, both through clinical assessment and laboratory testing. The role of laboratory diagnostics and a comprehensive approach to both diagnosis and treatment is crucial. Successful treatment requires a prompt and accurate diagnosis, effective bleeding control, and identification of the cause of the acquired coagulation disorder.

Keywords: Ecchymosis; Factor VIII; Hemophilia A

CR210

The lower trapezius island myocutaneous flap: Reconstruction of posterior neck after basal cell carcinoma resection

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Introduction: Three separate flaps are based on the trapezius muscle - upper, middle and lower island myocutaneous flaps. The upper flap is based on the occipital artery, while middle and lower flaps are based on branches of the transverse cervical artery. The lower flap has reliable vascularization, is simple to lift, and can be used in reconstructive procedures of large defects, especially in the occipital region.

Case report: This case report is about a 65-year-old male with a history of pain and bleeding of the skin in posterior neck for the last 6 months. He had an exophytic tumor of 30 mm in diameter and local skin defects up to 10 mm with a total diameter of 70 mm. Patient had a medical history of the basal cell carcinoma resection 7 years earlier and has not shown up for regular follow up exams. The defect was reconstructed with vertical lower trapezius island myocutaneous flap on the descending branch of the transverse cervical artery because it matches in size, color, texture and thickness. The rotation of the lobe by about 100 degrees into the defect was very acceptable and did not compromise the success of the surgery. The definitive histopathological diagnosis was carcinoma basocellulare. Postoperative finding one month after surgery was satisfying.

Conclusion: When the size of the incision is carefully analyzed, complications from the donor region or the need to use available covering skin transplants can be avoided. One additional challenge for the patient is that the patient must be in the prone position. The aesthetic result is very acceptable, so the color, thickness and texture of the flap almost match the surrounding tissue.

Keywords: basal cell carcinoma; myocutaneous flap; plastic surgery procedures

CR211

Where is V. cava inferior?

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Introduction: The absence of the inferior vena cava (IVC) is a rare abnormality reported in less than 1% of the population. The collateral veins are enlarged with agenesis IVC, enabling blood transport to the superior vena cava. IVC agenesis (IVCA) may predispose to venous hypertension and complications, including thromboembolism.

Case report: We present a case of a 20-year-old female patient with syncope who came to the emergency ambulance. She had profuse perspiration and she lost 12 kg of body weight during one month. Under the suspicion of pulmonary thromboembolism, a computed tomography (CT) angiography of the pulmonary arteries showed a retrosternal para-aortic hypovascular soft tissue formation with a diameter of 30x40x85 mm. Laboratory findings also confirmed higher thyroid hormone values. Immunohyperthyroidism was diagnosed. A post-contrast CT scan of the thorax was performed which showed that para-aortic hypovascular soft-tissue formation is the thymus, but an incidental finding was also discovered. There was no representation of the inferior v. cava in the area from the renal veins to the heart, and the dominant azygos and hemiazygos v. were visible. Hemiazygos vein merges into the azygos vein in the thorax area. All of the above corresponds primarily to the anatomical variant of congenital absence of V. cava inferior.

Conclusion: IVCA is a significant but highly under-recognized cause of unprovoked deep venous thrombosis of the lower extremities in the young population without additional risk factors. Hence, a complete diagnostic evaluation is necessary, which includes imaging for vascular anomalies besides the thrombophilic screen. Treatment is mainly conservative and may require lifelong anticoagulation therapy.

Keywords: Computed Tomography Angiography; Thromboembolism; Vena Cava Inferior

CR212

Navigating diagnostic challenges in the treatment of tumor formations – lipoma - liposarcoma

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Introduction: Lipoma is a common benign soft tissue tumor of fat cell origin, while liposarcoma represents a malignant variant with potential life-threatening consequences. In this case report, we will discuss a patient who underwent detailed investigations for a giant mass.

Case report: A 55-year-old patient consulted a plastic surgeon due to a growth on his left upper arm that appeared 3 years ago, accompanied by pain and tingling in the hand. The gigantic mass measured 14x8.6x6.3 cm, extending from the middle of the upper arm to the cubital fossa. Magnetic resonance imaging revealed a heterogeneous and spotty intensity in the fat tissue signal, raising suspicion of liposarcoma. The patient underwent an operation under endotracheal anesthesia, before which he performed cytological analysis, complete preoperative evaluation, and an anesthesiologist's examination. Cytological analysis indicated atypical mesenchymal cells, and the anesthesiological examination classified the patient as ASA II with normal vital parameters and clinical findings. The operation, featuring a semi-arched incision with meticulous hemostasis, successfully excised the tumor from upper arm muscles and the radial nerve. Despite a preoperative suspicion of liposarcoma, histopathology ultimately diagnosed a lipoma. The postoperative course proceeded smoothly with proper wound healing.

Conclusion: Radiological diagnostics and cytological analysis are key tools for determining the need for surgical treatment. Open biopsy and histopathology must be the gold standard. An inaccurate diagnosis can significantly impact patient's treatment outcomes, emphasizing the importance of using diagnostic tools in a complementary manner.

Keywords: lipoma; liposarcoma; neoplasms

CR213

Recurrence of high-grade sarcoma

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Introduction: Sarcoma is a rare malignant mesenchymal tumor which is divided into bone sarcomas, visceral sarcomas and soft tissue sarcomas. The aim of this case report is to show the importance of early recognition of recidivism of sarcomas to improve survival rate and quality of life of the patient.

Case report: The patient presented to plastic surgery clinic with pain in the left shoulder. Magnetic resonance scan showed a mesenchymal tumor in the suprascapular zone. The size of the tumor was 5 centimeters. The patient underwent surgical removal of the tumor and surrounding tissue with clean cutting edges. The material was sent for pathohistological analysis. Follow-up of the patient went well. After 6 years patient again reported in the plastic surgery clinic with swelling and painful left shoulder. MR scan showed recurrence of sarcoma which infiltrated lateral portion of the left scapula. Patient underwent surgical removal of the tumor and partial scapulectomy. The material was sent for PHD analysis which showed sarcoma grade III. Postoperatively patient recovered properly and was referred to an oncologist for further diagnostic and therapeutic procedures.

Conclusion: We report a rare case of high-grade sarcoma and recurrence of sarcoma 6 years after the initial checkup. Risk factors for the recurrence of sarcoma are smoking, chronic inflammation, genetic predisposition and toxins. Follow-up of these patients should be frequent and detailed in order to as soon as possible discover recidives of high-grade sarcoma.

Keywords: sarcoma; local neoplasm recurrence; malignant mesenchymal tumor; scapula

CR214

De Clérambault's syndrome or another erotomania

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Introduction: De Clérambault's syndrome, known as "psychosis passionelle" since 1921, was initially misunderstood. It encompasses phantom lover syndrome, delusional ideas, psychotic-erotic transference reaction, delusional love, erotomania, and personality disorder inventory. Despite sporadic descriptions, it remains underrepresented in literature, with an unknown prevalence. Predominantly affecting young women, it involves infatuation with someone of higher status. This case report aims to shed light on this often misrecognized form of erotomania, emphasizing the need for accurate treatment.

Case report: We report a case of a 41-year-old married woman, residing with her husband and mothering one child, currently unemployed. Her early psychomotor development was typical. She had prior psychiatric treatment for adjustment disorder and bipolar affective disorder triggered by her husband's sudden illness. She takes aripiprazole regularly. She presented with identity shifts, mood swings, inadequate affect, disorganization, erotomaniac and religious delusions, and bizarre behavior. Lack of insight necessitated forced hospitalization due to decompensation, heteroaggression, and potential suicidality, court-ordered hospital treatment followed. After stabilization, she continued treatment at home with a newfound commitment to therapy.

Conclusion: The point criteria for de Clérambault's syndrome include delusions of love, delusions of erotomaniac content, phantom lover syndrome, and altered identity. Misdiagnosis and underrecognition of this disorder hinder effective treatment. It is crucial to timely address the peculiarity in a patient's behavior and ensure appropriate medical care. Large-scale genetic research, involving family doctors due to their primary patient contact, can enhance disease comprehension and early intervention. Family medicine doctors play a pivotal role in maintaining chronic therapy, regular check-ups, and collaborating with psychiatrists during psychostatus decompensation.

Keywords: Delusions; Neurocognitive disorders; Psychiatry; Syndrome

CR215

Cat scratch disease presenting with cytomorphological characteristics of Hodgkin lymphoma: a case report

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Introduction: Cat scratch disease is an infectious disease mainly caused by *Bartonella henselae*. The usual clinical presentation involves self-limited regional lymphadenopathy. However, visceral organs, eyes, and the central nervous system can also be affected.

Case report: A 16-year-old boy presents with pain in his left arm. He neglected any other symptoms, including group B symptoms. He has parrots and a cat but doesn't interact with them often. Upon examination, his primary care physician discovered axillary lymphadenopathy and decided to prescribe him amoxicillin-clavulanate, which led to an incomplete reduction of the swelling. Since the boy was of typical age for lymphoproliferative malignancies, he was referred for further diagnostic evaluation. Enlarged and multiplied lymph nodes were observed in an axillary ultrasound. Subsequently, an ultrasound-guided lymph node puncture was performed, and the cytomorphological analysis raised suspicion of Hodgkin lymphoma. Ultrasound-guided biopsy was performed and in the received samples, no malignant lymphoproliferative activity was detected. Instead, the observed changes were consistent with reactive patterns, specifically follicular hyperplasia and chronic granulomatous inflammation. Based on the morphological features of the granuloma, cat scratch disease became the most likely diagnosis.

Conclusion: Lymphadenopathy is common and usually not regarded as an alarming medical condition. However, it can represent a serious underlying disease, especially if located supraclavicular, since it's in 50% of cases malignant. The challenge is to maintain the proper balance between avoiding invasive, aggressive diagnostic procedures, while still making timely and precise diagnoses in children with suspected malignancies.

Keywords: Cat-scratch disease; Hodgkin disease; Lymphadenopathy

CR216

Polyarthritis with underlying Castleman disease: a case report

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Introduction: Castleman disease is a rare, nonclonal lymphoproliferative disorder which can affect any lymph node in the body. It can be monocentric or multicentric. Patients with monocentric Castleman disease usually experience symptoms only when the growing mass starts to compress surrounding structures.

Case report: A 48-year-old female patient presented with pain in the small joints of the hand in October 2022. She also reported morning stiffness that lasted over 30 minutes. Clinical examination revealed bilateral pain upon palpation in the proximal interphalangeal joints of the index and middle finger, also affecting the metacarpophalangeal joints of the thumb and middle finger. Laboratory tests revealed negative anti-CCP, elevated C-reactive protein (CRP) and elevated erythrocyte sedimentation rate (ESR). Suspecting seronegative rheumatoid arthritis, the patient was treated with methylprednisolone. A clinical follow-up in February 2023 included an ultrasound of the hand, which showed effusion with synovial proliferation. ESR and CRP were still persistently high, and methotrexate therapy was initiated. To assess the persistent inflammatory markers, a full-body computed tomography (CT) scan was ordered, revealing a solid soft-tissue mass next to the fundus of the stomach. A CT-guided biopsy of the tumor revealed an enlarged lymph node with an increased number of lymphoid follicles, leading to a diagnosis of monocentric Castleman disease. The patient underwent surgery to remove the affected lymph node and recovered well, and CRP levels normalized.

Conclusion: The diagnosis of Castleman disease presents a challenge to every clinician, as the symptomatology can be masked with other conditions. Had a CT scan not been performed, the patient could've been undiagnosed for years, potentially risking a fatal outcome.

Keywords: Castleman Disease; methylprednisone; Rheumatoid Arthritis

CR217

From neglect to metastasis: a giant abdominal basal cell carcinoma

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Introduction: Basal cell carcinoma (BCC) is the most prevalent form of skin cancer. It usually occurs in areas that were sun-exposed like head and neck, but the abdomen is an extremely rare location. BCC is known for slow progression and rare occurrence of metastases due to its early detection and treatment. Therefore, it rarely grows as a giant with diameter larger than 5cm.

Case report: We report a case of 69-year-old woman who was diagnosed with BCC at the age of 66. Fifteen years prior she noticed a small skin lesion on her abdomen that progressively grew. When she reached for help the dimensions of the lesion were 20x30 cm, infiltrating the anterior abdominal wall, muscles, and peritoneum. The tumor was removed, two large transposition myocutaneous flaps were raised, and free partial thickness skin transplants covered remaining skin defects. Three months post-op there were no signs of relapse. Personal reasons hindered other checkups, leading to the unnoticed recurrence of the disease. Two and a half years later clinical examination showed local relapses, while MRI scan identified two ulcerative lesions, 7 cm and 9 cm in diameter, which were connected in deeper tissues, creating a bridge-like formation which disrupted liver capsule and intestinal walls. At this stage surgical intervention was considered impossible.

Conclusion: Despite early detection and treatment for BCC present nowadays, neglected cases can occur with lesion becoming giant in diameter and even invading other organs. Patients should receive education on compliance because it significantly contributes to avoiding adverse outcomes.

Keywords: abdomen; basal cell carcinoma; metastasis

CR218

Acromegaly caused by a pituitary tumor (case report of a woman)

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Introduction: Acromegaly is a chronic, progressive disease characterized by an overproduction of growth hormone (GH) and increased circulating insulin-like growth factor 1 (IGF-1) concentrations. In most cases, it's caused by a pituitary tumor. The clinical diagnosis is often delayed because the disease develops gradually, resulting in established systemic complications at the time of diagnosis and increased morbidity and premature mortality.

Case report: We report a case of a 35-year-old woman diagnosed with acromegaly at the age of 32. She was first hospitalized at the Clinic for Endocrinology when we suspected acromegaly based on the clinical presentation, and then a detailed laboratory and clinical investigation was conducted. We determined hormone levels preoperatively, including IGF-1 (1256.00 ng/ml), insulin-like growth factor binding protein-3 (IGFBP-3) (9875 ng/ml), and human growth hormone (HGH) (19.80 ng/ml). An MRI (magnetic resonance imaging) examination of the head and sellar region was performed, indicating a macroadenoma. Surgical treatment was conducted using a transnasal-transsphenoidal endo-scope approach by a neurosurgeon and ENT (ear, nose, throat) specialist. Postoperative follow-up MRI indicated the condition after the removal of the tumor in the sellar region, and a subsequent endocrinological evaluation showed a significant reduction in hormone levels: IGF-1 (369.30 ng/ml), IGFBP-3 (7317 ng/ml), and HGH (4.16 ng/ml).

Conclusion: Early diagnosis and proper treatment are crucial to reduce the increased risk of significant comorbidities and even death caused by late-diagnosed and treated conditions, such as acromegaly. The success of the treatment can be monitored by the reduction in hormone levels and follow-up MRI scans.

Keywords: Acromegaly; diagnosis; pituitary tumor; treatment

CR219

Recurrent fetal supraventricular tachycardia – challenges of monitoring and treatment

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Introduction: Fetal tachycardias occur in 0.4-0.6% of all pregnancies and the most common type is supraventricular tachycardia (SVT). It poses fetal risks (low cardiac output, effusions, skin edema, fetal hydrops) and maternal risks during transplacental treatment.

Case report: 24-years old healthy woman, gravida 1, was admitted to the hospital because of fetal tachycardia noted at 28 weeks of gestation. Fetal echocardiography was done, SVT (260-340bpm) was diagnosed, other myocardial pathologies were excluded. Patient was administered digoxin, fetus cardioverted, fetal heart rate was around 120 bpm. Surveillance continued through outpatient clinic; digoxin concentration, maternal electrolytes, fetal ultrasound and nonstress test were done twice a week. At 32 weeks of gestation, recurrence of fetal tachycardia happened. She was admitted to the hospital again, digoxin dosage was escalated and sotalol was introduced. Fetus cardioverted after 3 days (110-120 bpm). Antiarrhythmics concentrations and electrolytes were monitored daily, same as mother's electrocardiogram (ECG). Pediatric cardiologist's check-ups have been done once a week; perinatologists have been performing ultrasound twice a week and nonstress test every day. At 34 weeks of gestation patient started reporting occasional fatigue, her heart rate was 45-48 bpm and there were changes in her ECG. Cardiologists agreed to reduce sotalol dosage. Fetal heart rate has remained stable. Patient is now 35 weeks pregnant and C-section is planned next week.

Conclusion: This case underscores the challenges in management of fetal SVT, emphasizing collaboration among cardiologists, pediatricians and perinatologists. It also highlights importance of vigilant monitoring and adjustments in therapy, to ensure well-being of both mother and fetus.

Keywords: Digoxin; Pregnancy; Sotalol; Tachycardia

CR220

Treatment of venous leg ulcer in a patient with systemic lupus erythematosus in family medicine practice

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Introduction: Systemic lupus erythematosus is a chronic autoimmune inflammatory disorder without an identified etiology, mostly affecting the skin, kidneys, the nervous system, and circulation. Various factors contribute to leg ulcers in its pathogenesis. Most patients have venous stasis due to chronic venous insufficiency, and vasculopathy is common in an inflammatory environment. This case presentation aims to focus on addressing possible causes and regular treatment options for patients with leg ulcers, following guidelines for venous ulcer management in family medicine.

Case report: A 62-year-old woman, previously diagnosed with systemic lupus erythematosus presented to a family medicine doctor with a chronic relapsing nonhealing venous leg ulcer, persisting for one month. In addition to the previous history of systemic lupus erythematosus and vasculopathy, ambulatory management centered on standard guidelines: leg ulcer history, leg and ulcer examination and possible support methods. On examination, she had two pretibial ulcers, with punched-out borders, a tender 8 × 7 cm irregularly shaped, foul-smelling, deep ulceration with a granulating base and no spicules of calcium. Femoral and pedal pulses were present bilaterally, and skin overlying her feet was warm. Neurologic examination was unremarkable. After 2 months of treatment, her venous ulcers healed.

Conclusion: Vascular pathologies in systemic lupus erythematosus can result from direct complications or develop as comorbidities due to the hematologic disturbances and immunosuppressive medication side effects. Even though vasculopathy in the presence of an inflammatory environment is very common, more attention must be paid to prevention of recurrences including regular clinical evaluations and patient education about prevention.

Keywords: Autoimmune diseases; Leg ulcer; Systemic lupus erythematosus

CR221

Dynamic and static facial reanimation after facial nerve paralysis

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Introduction: Facial nerve paralysis is a debilitating condition that can result from various causes, impacting both functional and aesthetic aspects of the patient's life. This condition disrupts the intricate control of facial muscles, impacting voluntary and involuntary expressions.

Case report: A 41-year-old female patient presented with facial nerve paralysis after a series of operations and radiation of the schwannoma of the vestibulocochlear nerve on the right side. Surgery started with exposing the branches of the right facial nerve. On the left nasolabial groove a branch of the buccal nerve was prepared for neural anastomosis. The fascia lata from the right thigh was lifted with the suralis nerve graft from the right calf. Static reanimation was done by fixating the fascia lata to the right commissure of the mouth and the right temporal fascia. Dynamic reanimation was done by tunnelling the way for the suralis nerve graft above the upper lip. The graft was sewn by end-to-end anastomosis to the buccal branch on the left and the branches of the facial nerve on the right side. 8 months after the surgery the patient was able to spontaneously move the face using the cross-face nerve graft while the fascia lata provided static support and symmetry during rest.

Conclusion: The integration of dynamic and static facial nerve reconstruction techniques exemplifies a comprehensive approach to addressing the challenges associated with facial nerve paralysis. The demonstration of improved functional and aesthetic outcomes is highlighted, emphasizing the importance of considering both dynamic and static components in facial nerve reconstruction.

Keywords: Facial Nerve Injuries; Facial Paralysis; Plastic Surgery Procedures

CR222

Tamoxifen, antidepressants, and CYP2D6 genotype: What to do?

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Introduction: Major depressive disorder (MDD) is a frequently encountered condition among individuals diagnosed with breast cancer, with reported prevalence rates ranging from 10 to 25 percent. Despite its significant impact on exacerbating physical symptoms and impairing functional well-being, MDD often goes unnoticed by medical professionals.

Case report: The patient is a 45-year-old woman with primary breast cancer who had undergone surgery, chemotherapy, and radiotherapy in 2018 and after that has begun receiving tamoxifen. She presented with decreased mood, anhedonia, tension, anxiety, and reduced motivation. Diagnosed with MDD in December 2019, she was initially prescribed escitalopram and duloxetine, both strong CYP2D6 inhibitors, alongside tamoxifen, but she was not taking them. In July 2020, the patient sought emergency care due to general malaise and low functioning. The treatment was initiated with venlafaxine with a gradual titration to a final dosage of 225 mg per day because it has little or no effect on the metabolism of tamoxifen. Also, CYP2D6 genotyping was done and revealed ultrarapid metabolizer (UM) phenotype may be important for individualized tamoxifen dosage. Upon the patient's last evaluation in November 2023, she reported remission from both breast cancer and depressive symptoms.

Conclusion: This case report underscores the significance of understanding potential drug-drug interactions, particularly those involving tamoxifen and antidepressants in women with breast cancer. Additionally, it highlights the indispensable role of pharmacogenetics in the management of these patients. The necessity for individualized medicine and tailored drug-modulation approaches to achieve remission of depressive symptoms in this specific patient population is emphasized.

Keywords: Antidepressive Agents; Breast Neoplasms, Depressive Disorder, Major; Pharmacogenetics; Tamoxifen

CM01

TRPV6 variants in chronic pancreatitis in Hungary

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Introduction: Genetic studies performed so far identified only two pancreatitis risk genes which are mainly expressed in ductal cells; CFTR (cystic fibrosis transmembrane conductance regulator) and CLDN2 (claudin 2). According to recent findings, functionally defective variants in a Ca²⁺-selective ion channel predominantly expressed in pancreatic ducts named TRPV6 (Transient Receptor Potential Vanilloid subfamily member 6) are associated with early-onset, non-alcoholic chronic pancreatitis. Our aim was to verify the role of TRPV6 variants in the Hungarian chronic pancreatitis population.

Materials and methods: Patients were recruited from the Hungarian National Pancreas Registry. Exons 2-15 of the TRPV6 gene were analysed by PCR and Sanger sequencing in 145 non-alcoholic chronic pancreatitis patients and 300 controls. In silico analysis was performed using REVEL meta-predictor.

Results: We identified 7 common variants (p.C197R, p.T400=, p.M418V, p.N504=, p.T641=, p.G666=, p.M721T), 3 previously reported functionally benign rare TRPV6 variants (p.R220W, p.L299Q, p.T309M), and 7 rare novel variants (p.P143L, p.T159I, p.R194C, p.T309=, p.P352=, p.R449K, p.G501C) variants. The T allele of the common c.1512C>T (p.N504=) variant was significantly overrepresented in cases (37/250, 14.8%) compared to the control group (42/462, 9.1%) (OR= 1.7; p=0.027; 95% CI 1.09-2.8). In silico analysis classified 4 of the novel rare variants (p.P143L, p.T159I, p.R449K, p.G501C) as potentially pathogenic.

Conclusion: We identified 4 novel potentially pathogenic rare TRPV6 variants p.P143L, p.T159I, p.R449K, p.G501C. The common variant p.N504= was significantly associated with the disease, however, independent replication will be required to confirm this finding.

Keywords: Case-control studies; Pancreatitis; TRPV6 channel

CM02

Gender differences in exposure to hand trauma

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Introduction: Hand injuries rank among plastic surgery's most prevalent surgically treated conditions. Suboptimal management can result in prolonged healing, complications, notable morbidity, and severe disability. In this study we compared gender differences in hand/wrist injury mechanisms, etiology, physical impairments, and post-traumatic stress symptoms post-treatment.

Materials and methods: The study involved 101 patients with hand injuries treated at the Clinic for plastic and reconstructive surgery, University Clinical Center of Vojvodina in Novi Sad; from 2020 to 2023. We collected the following data: age, gender, level of education, mechanism of injury, length of hospitalization, type of defect reconstruction, number of surgical procedures. Based on telephone interviews we calculated the Disabilities of Arm, Shoulder and Hand (DASH) and Short PTSD Rating Interview (SPRINT) Score.

Results: The mean age of patients was 43.3 years; most of them (73%) were men, and most (22%) were injured by a circular saw. The average hospital stay for both genders was approximately 3.5 days. Majority of both men and women (85 %) underwent only one surgical procedure, which was in most cases a direct suture (86%). Mean DASH Score was 37.8 in men, while 55.7 in women. Similarly, the mean SPRINT Score was 8.6 in men and 12.1 in women.

Conclusion: The study shows that women have significantly higher DASH and SPRINT scores compared to men, which can indicate a higher number of physical impairments and higher risk of PTSD post-treatment. In regards to the mechanisms of injury, the study shows the highest incidence of circular saw injuries, which can be attributed to professional exposure.

Keywords: Hand Injuries; Sex Characteristics; Stress Disorders, Post-Traumatic

CM03

Comparison of early perinatal characteristics of very low birth weight preterm infants with fatal outcomes compared to survivors

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Introduction: The aim was to compare the early perinatal characteristics of very low birth weight (VLBW) premature infants with a fatal outcome and compare them with those who survived.

Materials and methods: The research was conducted at the Pediatric Clinic in KBC Osijek. All newborns born in the period from 01.01.2018. to 31.12.2019. birth weight <1500 g and gestational age <37 weeks were included. The data was collected by reviewing the hospital's IT system. Birth weight, Apgar score in the 1st and 5th minute, the degree of intracranial hemorrhage, and the number of days until death were considered.

Results: In the observed period, 120 infants with VLBW were born. The fatal outcome had 25% of infants, with a median weight of 613g, Apgar score 3 in the 1st and 5 in the 5th minute. The median number of days until death was 3 days, indicating progressive deterioration in these patients. Compared to survivors, fatal outcome was significantly higher in premature infants with lower birth weight (Mann Whitney U test, $P < 0.001$), lower Apgar score values in 1' and 5' (Mann Whitney U test, $P < 0.001$), and higher degree of cerebral hemorrhage (Fisher's exact test, $P = 0.001$)

Conclusion: Death occurs in ¼ of VLBW premature infants and is most common in premature infants with an extremely short gestation period of less than 25 weeks and a weight of less than 800 grams.

Keywords: Apgar score; cerebral intraventricular hemorrhage; very low birth weight; preterm

CM04

Blood pressure and sleep quality of medical students at the University in Osijek, Croatia

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Introduction: Recent studies have shown that hypertension is increasingly prevalent among younger populations, including students. Sleep quality plays a crucial role in overall health and well-being. This study aims to investigate the correlation between blood pressure (BP) and sleep quality among student population.

Materials and methods: This cross-sectional study was conducted in December 2023. The participants consisted of first and second-year medical students from the University in Osijek. BP was measured using an oscillometric device (OMRON HEM-907) three times at 30-second intervals following a five-minute rest. The representative BP value was calculated as the average of the 1st, 2nd, and 3rd BP readings. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI). The study received approval from the Ethics Committee of the Faculty of Medicine, Osijek.

Results: A total of 86 students participated in the survey, including 24 males and 62 females. Among them, 27 % had blood pressure values above 130/80 mmHg, indicating hypertension according to the guidelines of the European Society of Hypertension (ESH). No differences in BP values were observed based on gender or year of study. Based on the total PSQI score, 81% of participants had poor sleep quality (total PSQI score > 5). Spearman's test revealed a statistically significant, moderate positive correlation between BP and total PSQI scores ($\rho = 0.244$, $P < 0.023$).

Conclusion: High prevalence of poor sleep quality (81 %), and high blood pressure (27 %) has been identified among first and second-year medical students at the University of Osijek. Furthermore, a positive correlation between BP values and total PSQI score was established.

Keywords: Blood pressure; Sleep quality; Students

CM05

The knowledge on adverse effects of medications and supplements used during pregnancy

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Introduction: Pregnancy is a condition during which a woman's body undergoes changes that affect pharmacokinetics. The aim of this study was to evaluate pregnant women's knowledge about the safety of medications and supplements used during pregnancy and to determine whether there is a difference in knowledge in relation to age, demographic and socioeconomic factors. It was assumed that highly educated women in developed urban areas have better knowledge of the aforementioned.

Materials and methods: One hundred pregnant women participated in the cross-sectional study. The anonymous questionnaire was compiled and contained sociodemographic data and information about one's current pregnancy. Thereafter, a series of specific questions followed.

Results: Sixty-four participants considered that the use of many medications for chronic diseases during pregnancy is not safe, and 98 % participants knew that some groups of antibiotics could cause adverse effects. Eighty-one women knew that the use of sedatives during pregnancy could lead to addiction in the newborn. Also, 98 % participants knew that using supplements before and during pregnancy was beneficial.

Conclusion: There was no significant statistical difference in knowledge about medications, supplements and adverse effects of medications in relation to demographic and socioeconomic factors, presence of a chronic disease in the medical history and habits of reading the instructions for the medication use. Women with a lower level of education and unemployed women had a lower level of knowledge. Pregnant women need to be additionally educated about the safety of medication use during pregnancy.

Keywords: medications; pregnancy; supplements

CM06

Platelet to the lymphocyte level ratio in patients with Hodgkin's lymphoma

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Introduction: This study aims to test the interrelations of the platelet to the lymphocyte level ratio (PLR) with clinical, and laboratory characteristics in patients with Hodgkin's lymphoma (HL).

Materials and methods: This research was designed as a cross-sectional study with historical data on patients with histologically verified HL, and in whom the disease was diagnosed from April 2005 to August 2022 at the Clinical Hospital Center Osijek.

Results: A total of 83 subjects with a bimodal age distribution, median age of 36 years, ranging from 19 to 82 years, participated in the research. A significant difference in the average value of PLR was found depending on the stage of HL and unfavorable laboratory findings. Higher PLR is present in people with advanced stages of HL (Ann Arbor classification stage III and IV ($p < 0.01$)). Also, higher PLR levels were found in the group with lethal outcomes ($p = 0.028$). A positive correlation of PLR with C-reactive protein ($Rho = 0.437$, $p < 0.001$), lactate dehydrogenase levels ($Rho = 0.220$, $p = 0.047$) and sedimentation rate ($Rho = 0.377$, $p < 0.01$), and a negative correlation with albumin ($Rho = -0.319$, $p < 0.01$) and hemoglobin levels ($Rho = -0.280$, $p < 0.01$)

Conclusion: Higher PLR is associated with unfavorable laboratory characteristics and advanced stages of HL. Due to the small number of patients with a lethal outcome, it is hard to predict its value as a prognostic factor. There is good potential for PLR as a prognostic marker, but it should be applied with other known biochemical and hematological markers.

Keywords: Hodgkin's lymphoma; lymphocytes; platelet

CM07

Examination of PACAP in exosomes of human milk samples of preterm newborns

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Introduction: The pituitary adenylate cyclase-activating polypeptide (PACAP) is an anti-inflammatory, anti-apoptotic and antioxidant neuropeptide that plays an essential role in the regulation of the female reproductive system and neonatal development.

Materials and methods: We used a new fractionation procedure to separate our breast milk samples into aqueous and fatty phases. Intact exosome and exosome-lysate fractions were isolated from the aqueous phase by additional centrifugation and sonication. We aimed to quantify and compare PACAP-38 levels in the fractionated breast milk phases of preterm (n=12) and term (n=11) neonates by enzyme-linked immunosorbent assay (ELISA).

Results: We could detect PACAP-38 in all milk fractions by ELISA, although the aqueous and the exosome phases contained significantly more neuropeptide compared to the fatty phase. When comparing different fractions, no significant difference was observed between the preterm and term groups. However, when the preterm group was subdivided into two subgroups, higher PACAP-38 concentrations were measured in the milk fractions of the 30-37 weeks neonates that were significantly higher than that of the total and fatty phase of <30 weeks babies and exosome lysate of term infants.

Conclusion: Our results suggest that the amount of PACAP shows a dynamic variation in breast milk after birth. We suppose that the aqueous and exosome milk fractions containing the highest levels of neuropeptide may play an important role in neonatal development, aid the maturation of the neonatal immune system, and affect the growth and regulation of mammary gland function.

Keywords: Exosomes; Lactation; Infant; Pituitary Adenylate Cyclase-Activating Polypeptide; Premature Birth

CM08

Comparison of classical surgery versus endoscopic pilonidal sinus treatment in The National Memorial Hospital Vukovar in years 2022. and 2023.

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Introduction: Pilonidal sinus is a common pathology usually associated with wound-healing complications frequently followed by high relapse rate. Therapeutic method of choice is pilonidal sinus surgery, with more than one option of approach. We have conducted a retrospective study with data collected during the period of the last two years. Patients treated with Karydakis procedure (standard approach) were compared to the patients that were treated with EPSIT (Endoscopic Pilonidal Sinus Treatment). Collected data includes information regarding hospitalization duration, pain intensity (measured by VAS – the Visual Analogue Scale), wound-healing period duration and relapse rate.

Materials and methods: There were total 33 operated patients, of which 22 patients were treated with classical surgical method, and 12 patients were treated with EPSIT. Study included 32 male and 1 female patient. Patient's age ranged between 16 to 57 years.

Results: Firstly, VAS score was lower in patients treated with EPSIT. Next, duration of hospitalization was shorter in EPSIT patients. VAS score proved to be lower on the first day post-surgery in EPSIT-treated patients. Also, wounds heal faster in EPSIT patients. Finally, it's found that relapse rate is lower in EPSIT operated.

Conclusion: EPSIT proved to be an excellent alternative to classical approach on small sample of patients, with positive outcome and better quality of patient's life in postoperative period. Results of these preliminary studies need to be additionally confirmed by conducting more prospective studies on the bigger samples of patients.

Keywords: endoscopic surgical procedure, pilonidal sinus, surgical endoscopy

REVIEW

OSCON



R01

Indications for pharmacogenomic testing in anaesthesiology: A review of literatureLuka Bulić¹; Eva Brenner¹; Vilena Vrbanović Mijatović^{1,2}

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Introduction: Pharmacogenomics is a field of genetics which focuses on genes that dictate individual drug metabolism. By discovering how certain genetic variants impact the dose-response relationship, more personalized drug-administration guidelines can be created with the goal of reducing adverse drug reactions. The aim of this review is to provide an overview of pharmacogenetic implications in frequently administered drugs in anaesthesiology.

Review: The PubMed database was searched using the keywords "pharmacogenetics" and "anaesthesia". The search yielded 27 results, out of which only studies and meta-analyses were taken into account. After filtering, 8 studies were included, involving a total of 2511 patients. All studies noted significantly different responses to anaesthesia medication depending on pharmacogenetic profiles. One study noted differences between postoperative recovery times, with intraoperative rocuronium application and OPRM1 and ABCG2 variants. Three studies noted differences between respiratory depression occurrences, with postoperative morphine application and OCT1, ABCB1, and ABCC3 variants. One study noted differences between adequate doses, with intraoperative phenylephrine administration and ADRB2 variants. Finally, the three studies noted differences between adequate doses, with postoperative application of methadone and CYP2B6 variants and postoperative application of oxycodone and tramadol and CYP2D6 variants.

Conclusion: In conclusion, statistically significant differences in reactions to intraoperative and postoperative anaesthesia medication were demonstrated across different pharmacogenomic profiles. These results demonstrate how the integration of pharmacogenomics in anaesthesia might lead to a beneficial personalised approach to patient care and a reduction in adverse drug reactions.

Keywords: Anaesthesia and Analgesia; Drug-Induced Abnormalities; Pharmacogenetics

R02

Therapeutic approach to lymphatic malformations in childrenBruno Bumčić¹; Mia Edl²; Ema Grba²; Danijel Ovetko³; Rok Kralj⁴

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Introduction: Lymphatic malformations (LMs) are congenital developmental anomalies of the lymphatic system that in 75% of cases present in the cervicofacial region. The most common complications are hemorrhage and infection. Malformations in the cervical region can also result in dyspnea and/or dysphagia. Diagnostic procedures used to differentiate macrocystic, microcystic and mixed LMs include ultrasound and MR with contrast.

Review: Data was extracted from PubMed. Observational therapeutic approach is considered if LMs are not followed by functional symptoms, otherwise sclerotherapy is currently the first line treatment if invasive management is indicated. Surgical procedures have a higher risk of complications afterwards, such as formation of lymphatic fistulas, relapses, infections, injuries to the facial nerve and hypoglossal nerve. The reported complication rates after surgery range from 12 to 33%, while on the other side after sclerotherapy is less, ranging from 1 to 14% depending on the localisation of the LMs. When performing sclerotherapy different sclerosants can be used depending on the localisation and morphological subtype. The most often used agent worldwide is bleomycin, mostly due to the fact that it produces less swelling and thus minimizing the risk of nerve injury when in close proximity to a nerve. In cases of large complicated LMs sirolimus treatment may be considered.

Conclusion: In Children's Hospital Zagreb, we propose an algorithm that includes sclerotherapy with bleomycin as the treatment of choice for macrocystic anomalies and surgery as a therapeutic option for microcystic malformations and for residual disease. Sirolimus has a role in a carefully selected group of patients.

Keywords: Lymphatic abnormalities, sclerotherapy, surgery, bleomycin

R03

A Comprehensive Review of the Nipple-Sharing Technique in Nipple-Areola Complex Reconstruction

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Introduction: Reconstruction of the nipple-areola complex (NAC) is the final stage of breast reconstruction, usually for patients with breast cancer. Many techniques for NAC reconstruction are known, including local flaps, skin grafts, or free contralateral nipple grafts, known as the nipple-sharing technique. In this review, the nipple-sharing procedure for breast reconstruction is analyzed with attention to patient satisfaction, cosmetic results, and potential problems.

Review: The PubMed database was searched using the keywords 'nipple sharing' and 'breast reconstruction'. Twelve articles published in the last ten years were analyzed. A comprehensive analysis revealed the impact of nipple-sharing technique on donor-site morbidity, sensation, and loss of projection over time. It emphasized the importance of achieving natural-looking results in NAC reconstruction and highlighted the challenges and limitations such as depigmentation, sensation loss, and necrosis. Two studies pointed out that NAC reconstruction is crucial for women's psychosocial and sexual well-being. Five studies featured the superiority of nipple-sharing compared to other NAC reconstruction techniques due to its natural appearance, sufficient donor nipple projection, matching in color, shape, and size, and minimal loss of sensitivity, giving the greatest potential for natural-looking results. Only one of the papers raised concerns about nipple graft failure due to ischemia and the necessity for careful patient selection and consideration of complications.

Conclusion: The reviewed literature emphasized the significance of patient satisfaction and achieving natural-looking results with NAC reconstruction methods, including the nipple-sharing technique which gives the most promising results. Further research should continue to optimize this technique and enhance long-term outcomes.

Keywords: Mammoplasty; Mastectomy; Nipples; Patient Satisfaction; Plastic Surgery Procedures

R04

Liver Transplantation in Multi-Organ Transplantation: Experience from University Hospital Merkur

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Introduction: Multi-organ transplantation involves the simultaneous transplantation of more than one solid organ in a single surgical procedure. Kidney transplantation commonly accompanies liver transplantation, demonstrating a reduced risk of acute kidney rejection and favorable graft survival. This study aims to analyze the causes and outcomes of multi-organ liver transplantations at University Hospital Merkur.

Review: The Eurotransplant database was searched for multi-organ transplantations involving the liver between 2007 and 2023. 35 multi-organ transplantations were performed: 33 involved the liver and kidney, one the liver and pancreas, and one the liver, pancreas, and small intestine. The group consisted of 28 males and 7 females, and the median age was 58. Most patients (69%) suffered from liver cirrhosis (alcoholic 20%, cryptogenic 17%, cholestatic 14%, hepatitis-related 14%, other 4%), 11% had polycystic liver disease, and the remainder comprised malignant tumors and metabolic diseases (Wilson's disease, hyperoxaluria). The most common causes for kidney transplantation were glomerulopathies (39%) and chronic kidney failure of unknown origin (21%). One-year patient survival was 84%, and five-year survival was 76%. The leading causes of patient mortality were cardiovascular causes, malignant diseases, and infectious complications. Out of a total of 71 transplanted organs, three kidneys experienced graft failure.

Conclusion: At University Hospital Merkur, 35 multi-organ transplantations, predominantly involving the liver and kidney, were performed between 2007 and 2023. The procedures exhibited high success rates in terms of graft acceptance and patient survival. Additionally, this Center conducted the first simultaneous transplantation of the liver, pancreas, and small intestine in Croatia.

Keywords: Liver; Kidney; Transplantation

R05

Stevens–Johnson Syndrome and Toxic Epidermal Necrolysis: What are the most successful therapy options?

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Introduction: Stevens–Johnson syndrome and toxic epidermal necrolysis (SJS/TEN) are rare and life-threatening hypersensitivity reactions to drugs. These conditions share similar pathophysiological mechanisms but differ in the extent of skin and mucous membrane involvement (SJS <10%, TEN >30% body surface area (BSA)). Clinically, SJS/TEN presents with skin erythema and thin-walled blisters, followed by erosions and hemorrhagic changes, with mucosal involvement and often fever. Sepsis, respiratory complications and liver and kidney damage are possible, leading to high mortality.

Review: Based on the review of the PubMed database and the search using the terms: "Stevens–Johnson syndrome", "toxic epidermal necrolysis", and "treatment", numerous review articles and meta-analyses were included. Crucial steps in the treatment of SJS/TEN include supportive care in intensive care units (ICU) (fluid and electrolyte replacement, respiratory support, infection prevention) and the use of immunomodulatory drugs. Possible therapeutic options include systemic corticosteroids, intravenous immunoglobulins (IG), plasmapheresis, and more recently cyclosporine and tumor necrosis factor- α (TNF- α) inhibitors (etanercept). Among immunomodulatory therapy, cyclosporine has proven to be beneficial because it reduces mortality and accelerates epithelialization. Although systemic cortico-steroids are commonly used, they have not demonstrated effectiveness in controlled clinical trials and are associated with an increased risk of sepsis. Additionally, a lower number of deaths is observed with therapeutic use of cyclosporine, etanercept, and the combination of corticosteroids and IG.

Conclusion: Due to the numerous contradictory results, further studies are necessary to confirm the effectiveness of immunomodulatory therapy in treating SJS/TEN. However, there has been a decrease in the mortality rate in recent decades.

Keywords: Drug Hypersensitivity; Stevens-Johnson Syndrome; Therapeutics

R06

Thyroid-Gut-Axis: The influence of the intestinal microbiota on thyroid function

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Introduction: The thyroid-gut-axis appears to display an important link regarding the effect of the intestinal microbiota on the thyroid function. Furthermore, gut microbiota dysbiosis is a common finding in thyroid disorders and there is higher prevalence of the coexistence of thyroid and gut related diseases.

Review: Changes in the composition of intestinal bacteria can influence the immune response by damaging the intestinal membrane and causing an increase in intestinal permeability, which leads not only to a high exposure of antigens, but also local inflammation. Dysbiosis can also directly impact thyroid hormone levels through the inhibition of thyroid stimulating hormone (TSH) and its own deiodinase activity. Intestinal microbiota also influences the absorption of minerals essential for thyroid function, including iodine, iron, zinc and selenium. Altered levels of these minerals have a clear correlation with thyroid dysfunction. Moreover, consumption of probiotics has shown beneficial effects on thyroid diseases and can positively impact mineral levels. Probiotic consumption helped patients with hypothyroidism by significantly reducing TSH, levothyroxine dose, fatigue and increasing triiodothyronine (T3). Additionally, microbes serve as a reservoir for T3 and are able to prevent thyroid hormone fluctuating and may potentially reduce the need for thyroxine (T4) supplementation.

Conclusion: Considering the various potential effects of the microbiota on thyroid function, it may be possible to establish new therapeutic strategies for managing thyroid diseases that are better tailored to patients based on their intestinal microbiota composition. However, future studies are necessary to evaluate the exact impact of intestinal microbiota on thyroid function and diseases.

Keywords: gut microbiota; thyroid; thyroid hormones

R07

Genetic Susceptibility in Anti-NMDA Receptor Encephalitis: A Review

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Introduction: Anti-NMDAR (Anti-N-methyl-D-aspartate receptor) encephalitis is a severe autoimmune disorder that targets the NMDA receptors within the central nervous system. Characterized by a complex interplay of genetic and environmental factors, the disease presents with a spectrum of neurological and psychiatric disturbances, often progressing to seizures, movement disorders, and altered consciousness.

Review: Searching PubMed database using key words „anti-NMDA*“ and „genetic*“ in total 56 results were found. Investigations into the genetic foundations of anti-NMDAR encephalitis have revealed significant associations with particular Human Leukocyte Antigen (HLA) alleles, specifically within the HLA class II region, like HLA-DRB1 and HLA-DQB1. These alleles may influence the way antigens are presented to immune cells, potentially triggering an autoantibody response against NMDA receptors. Studies have also implicated involvement of other genes, including those coding for cytokines (tumor necrosis factor- α) and interleukins (IL-10, IL-17A), in the disease's pathogenesis. These cytokines are known to play a role in modulating inflammation and immune responses, suggesting that aberrant cytokine activity may contribute to the disease trajectory. Additionally, polymorphisms in the genes of the complement system, particularly C4B, have been associated with variable disease expression.

Conclusion: In conclusion, the elucidation of genetic factors in anti-NMDAR encephalitis represents an essential step toward personalized medicine. While the identification of HLA associations signifies a leap forward in understanding the genetic risk, further research involving large cohorts and diverse populations is essential. Unraveling the genetic complexity will not only demystify the pathophysiology of the disease but will also pave the way for targeted interventions and prevention strategies. Hence, multidisciplinary research efforts continue to be of paramount importance in the quest to decode the genetic nuances of this enigmatic condition.

Keywords: anti-NMDA receptor autoantibody, auto-immune diseases, encephalitis

R08

Utilization of AI in plastic and reconstructive surgery

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Introduction: Artificial Intelligence (AI) is a technological field centered on machine learning, demonstrating the capacity of hardware and software to emulate diverse facets of human cognition at the level of machine efficiency. Consequently, the research and application of AI in the medical field is increasing. The aim of this article is to provide an overview of current data regarding the utilization of AI in plastic and reconstructive surgery.

Review: AI technology finds application in various phases. Preoperatively, AI supports patient consultation through Artificial Intelligent Virtual Assistants (AVA): evaluates eligibility for procedures; assists in proportion analysis and planning using 3D models of patients (e.g. breast augmentations, facial procedures); classifies skin lesions (discerning malignant and benign) using pattern recognition with Convolutional Neural Network (CNN); analyzes craniosynostosis in computed tomography images; ensures more accurate implant design and virtual planning of fibula free-flap reconstruction of mandibular and maxillary defects compared to free-hand techniques. In perioperative and operative phases, AI provides real-time image analysis; incorporates cross-sectional imaging for 3D radiologically enhanced perspective during intricate tumor resections and reconstructions; offers navigation guidance using robotic systems (e.g. cleft lip and palate, hemifacial microsomia); integrates motion sensors. Postoperatively, AI predicts possible outcomes, complications (e.g. arterial or venous occlusion) and revisions. Moreover, AI aids in education (e.g. surgical simulation) thus reducing the risk of errors.

Conclusion: Utilization of AI in plastic and reconstructive surgery is rapidly advancing, with additional research required to refine its already established accuracy. Harmoniously integrating human expertise with AI is shaping a transformative era in surgery.

Keywords: Artificial Intelligence; Machine Learning; Robotic Surgical Procedures; Surgery, Plastic

R09

Reduction in Pain and Inflammation Through Sport Induced Oxytocin

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Introduction: Oxytocin is a neuropeptide secretion of which can be stimulated by exercise and has numerous effects. Its involvement in pain and inflammation might hold therapeutic potential.

Review: Our study investigates the role of oxytocin in relation to sport with possible implications for reconstructive surgery. We reviewed 32 studies that identified the involvement of oxytocin in injury healing, pain management, and inflammation reduction. Oxytocin's anti-inflammatory properties and its ability to facilitate tissue regeneration against oxidative stress have been recognized. It inhibits mast cell degranulation and inflammation in ischemic heart, ameliorating myocardial injury, but also alleviates renal and hepatic ischemic damage. Moreover, regular moderate exercise may decrease gastric oxidative stress, most likely due to oxytocin increase, and its intraperitoneal administration resulted in accelerated functional and electrophysiological recovery in rat sciatic-injury models. In terms of nociception, peripheral oxytocin receptors inhibit nociceptive signaling to spinal dorsal horn neurons. Since the degree of inflammation seems to be linked directly to oxytocin in a dose-dependent manner, aerobic exercise and meditation may be considered as both increase oxytocin levels.

Conclusion: This research highlights the potential of oxytocin to improve recovery protocols and conditioning strategies in athletes, thereby increasing the effectiveness of treatment and care, especially in terms of sports injuries. Future studies could investigate the relationship between exercise-induced oxytocin and recovery times which may contribute to the field of reconstructive surgery.

Keywords: Exercise; Inflammation; Oxytocin; Pain management



OTHER

OSCON



001

Josip Juraj Strossmayer's university students' Basic Life Support (BLS) knowledge

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Introduction: Every person should know Basic Life Support (BLS) in order to be able to save a life before the ambulance's arrival. This research gives us insight into how well the Josip Juraj Strossmayer's university students know BLS and their willingness to help a person in need. We predict that the students who have more knowledge about BLS are more willing to help in different situations.

Materials and methods: 105 students took an anonymous survey. The survey consisted of five theoretical questions about BLS and seven multiple choice questions which examined their willingness to help, in general and specific situations.

Results: Out of the 105 Josip Juraj Strossmayer's university students, 22 (20.95%) have already provided first aid. The median of correct answers, about the theoretical knowledge of BLS, is four out of a maximum of five. The willingness to provide first aid to a person in need demonstrated a „weak“ positive correlation with theoretical knowledge (Pearson's $r=0.286, p<0.001$). The correlation between general readiness to provide first aid and readiness to help an affected child is "strong" ($r=0.643, p=0.002$). The weakest correlation between knowledge and readiness was noticed when it comes to parents ($r=0.238, p=0.005$). 17.1% of students would provide cardiopulmonary resuscitation (CPR) to a local alcoholic, while 61.9% would be willing to help a child. 50.5% of students would give CPR to a same sex person, while 45.7% would do the same to the opposite sex.

Conclusion: Only 43.8% students deemed themselves as ready to give CPR in cardiac arrest, which is a very low number, given the importance of bystander CPR in achieving neurologically intact survival.

Keywords: Cardiopulmonary Resuscitation; First Aid; Students

002

Attitudes of students at Josip Juraj Strossmayer University in Osijek and University of Rijeka towards aesthetic procedures

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Introduction: Aesthetic procedures are becoming more common in society. The aim was to examine the attitudes of students from the universities in Osijek and Rijeka towards aesthetic procedures, assuming great interest and positive attitudes, that females would more frequently undergo them and that differences at faculty and university levels would not exist.

Materials and methods: This research was conducted through an online, the authors made, questionnaire from 9 until 28 January 2024. A total of 589 students of the universities in Osijek and Rijeka responded. Statistical differences were examined using Chi-square test.

Results: Of the 589 respondents, 479 (81.3%) were female. 207 (35.1%) of them had already undergone surgery while 320 (54.3%) expressed a desire for some non-surgical aesthetic procedure. 36 (6.1%) had a surgical aesthetic procedure, while 164 (27.8%) expressed a desire for one, of which a quarter for two or more. Female students had more non-surgical (40.7% vs 10.8%, $P<0.001$) and a greater desire for non-surgical (62.8% vs 18%, $P<0.001$) and surgical aesthetic procedures (30.7% vs 16.2%, $P=0.002$). Students at health-related faculties had more non-surgical (40.3% vs 31.7%, $P=0.033$) while those at non-health faculties had more surgical aesthetic procedures (7.9% vs 3.4%, $P=0.028$). At the university level, students from Rijeka had undergone more non-surgical procedures (42.2% vs 31.9%, $P=0.015$).

Conclusion: Many students have undergone aesthetic procedures, mainly non-surgical ones, and showed a desire for them in future. The results confirmed females having undergone more non-surgical procedures, but they didn't confirm it for the surgical. Surprisingly, students at health-related faculties had more non-surgical, while those at non-health related ones more surgical and those from Rijeka more non-surgical aesthetic procedures.

Keywords: Attitude; Plastic surgery; Students

O03

Physical activity and its associated factors. Cross-sectional study among students of University of Osijek, Croatia

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Introduction: Physical activity (PA) plays a crucial role in maintaining overall well-being. This study aims to investigate the relationship between physical activity, mental health, and sleep quality among University of Osijek students

Materials and methods: Cross-sectional research was conducted in May 2023, as part of the larger study: Lifestyle and habits of students at the University of Osijek. Participants were on their first and second-year of study. The International Physical Activity Questionnaire (IPAQ) assessed PA, the Depression, Anxiety, and Stress Scale 21 (DASS-21) measured mental health, and the Pittsburgh Sleep Quality Index (PSQI) evaluated sleep quality. Ethical approval was obtained from the Faculty of Medicine, Osijek

Results: Of the 673 participants (405 females, 268 males), 42.9% were classified as high, 50.5% as moderate, and 6.5% as low PA according to IPAQ. Depression, anxiety, and stress symptoms were prevalent among 45%, 58%, and 39% of students, respectively. Poor sleep quality (total PSQI score>5) affected 60.8% of participants. Men were engaged more in intense PA, while women in moderate PA and walking ($p < 0.05$). Second-year students spent more time sitting ($p < 0.05$). Increased PA correlated with reduced levels of depression ($\rho = -0.12, p < 0.05$), anxiety ($\rho = -0.15, p < 0.05$), and stress ($\rho = -0.12, p < 0.05$). Furthermore, increased PA improved sleep quality (decrease total PSQI score) ($\rho = -0.12, p < 0.05$)

Conclusion: It has been found that higher levels of PA are associated with lower levels of depression, anxiety, and stress, as well as improved sleep quality, suggesting that PA could be a focal point in the development of interventions aimed at improving mental health and sleep quality among observed study participants.

Keywords: mental health; physical activity; sleep quality

O04

Reverse radial forearm flap in a fist reconstruction

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Introduction: Skin flaps are increasingly used method in plastic surgery since they have an excellent aesthetic result as well as a therapeutic effect with a low failure rate. In this case report, we will present a patient whom a reverse radial forearm flap enabled the recovery of lost hand functions.

Case report: The patient was admitted due to a traffic accident in which a right-sided skin detachment of the dorsum, grasping and extensor part of the hand, was observed. During the physical examination, painful dorsiflexion in the right wrist was observed as well as the inability to extend the fingers. A primary toilet of the wound along with removing the glass was performed. After that, it was estimated that the best therapeutic solution is reconstructive surgery in two stages. The first stage involved primary tendoraphy of the extensor tendons of the II-IV finger, after which a vacuum-assisted closure was applied. Consequently, a three-day recovery was indicated during which Allen's test during color doppler examination was performed on the skin of the right forearm and the place where vascular bundle perforates the muscle fascia was marked. After three days, a successful operation was performed to reconstruct the defect with a reverse radial flap. Postoperative treatment included wound dressing with antibiotic therapy and anti-tetanus prophylaxis and the patient was referred to the barochamber for hyperbaric oxygenation therapy. During follow-up, it was observed that the patient has fully recovered the function of the hand.

Conclusion: This case highlights growing possibilities of the therapeutic effects of plastic surgery, which with a properly chosen method can restore even a complete loss of function achieving a rare reach of treatment.

Keywords: Hand Deformities; Reconstructive Surgical Procedures; Surgical flaps

005

Internet addiction and symptoms of depression, anxiety, and stress - cross-sectional study among medical students at University in Osijek

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Introduction: Internet addiction and the use of digital media are on the rise and are significantly pronounced among the student population. This study aims to examine the prevalence of internet addiction and its possible association with the presence of negative affective emotions among students.

Materials and methods: This cross-sectional study was conducted in December 2023. Participants were first- and second-year medical students of the University of Osijek. Internet addiction was assessed with The Internet Addiction Test (IAT), and mental health with the Depression, Anxiety, and Stress Scale 21 (DASS 21). The study was approved by the Ethics Committee of the Faculty of Medicine Osijek.

Results: 92 students participated in the survey, comprising 27 males and 65 females. According to the total IAT scores, 46 % of participants exhibited internet addiction. No difference in internet addiction was observed based on gender and year of study. Spearman's test revealed a positive correlation between the Total IAT score and depression ($\rho = 0.36$, $P < 0.001$), anxiety ($\rho = 0.218$, $p < 0.0365$), and stress ($\rho = 0.276$, $P < 0.001$) scores. Regression analysis indicated that individuals with higher Total IAT scores tend to have higher depression scores ($\beta = 0.932$, $P = 0.041$).

Conclusion: Among first- and second-year medical students, a high prevalence of internet addiction was observed. It was found that an increase in internet addiction is associated with an increase in the presence of negative affective emotions, including symptoms of depression, anxiety, and stress.

Keywords: Anxiety; Depression; Internet Addiction; Stress; Students

006

Sleep quality and mental health among medical students in Osijek, Croatia

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Introduction: Poor sleep quality and mental health issues are prevalent among university students. This study aims to investigate the quality of sleep and the presence of symptoms of depression, anxiety, and stress, within the student population. Additionally, it explores the potential correlation between sleep quality and negative affective emotions.

Materials and methods: This cross-sectional study was conducted in December 2023. Participants were first- and second-year medical students at the University in Osijek. Sleep quality was assessed with The Pittsburgh Sleep Quality Index (PSQI), and mental health with the Depression, Anxiety, and Stress Scale 21 (DASS 21). The study was approved by the Ethics Committee of the Faculty of Medicine Osijek.

Results: A total of 92 students participated in the survey, comprising 27 males and 65 females. According to the Total PSQI score ($PSQI > 5$), 80.2 % of participants experienced poor sleep quality. Depression, anxiety, and stress symptoms were reported by 28.5 %, 50.5 %, and 39.6 % respectively. Women exhibited a higher stress symptoms compared to man ($P < 0.042$). Regression analysis revealed a positive correlation between the total PSQI score and depression ($r = 0.51$, $P < 0.001$), anxiety ($r = 0.39$, $P < 0.001$), and stress ($r = 0.43$, $P < 0.001$) scores.

Conclusion: High prevalence of poor sleep quality and negative affective emotions has been established among medical students at the University in Osijek. Poorer sleep quality was associated with higher levels of depression, anxiety, and stress. These results highlight the need for implementing measures aimed at improving sleep quality and mental health among students.

Keywords: anxiety; depression; sleep quality; stress; students

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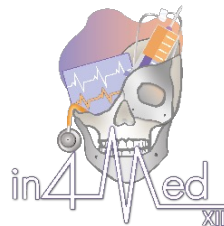
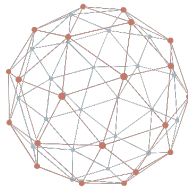
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