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ABSTRACT BOOK

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Editura „Victor Babeș"
Timișoara, 2025

ABSTRACT BOOK

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Abstract Book – MEDIS 2025 Welcome Letter

Dear colleagues, participants, and collaborators,

It is with great joy and pride that we welcome you to the pages of this Book of Abstracts, which brings together the scientific contributions of the participants in the **The 25th edition of The International Medical Congress for Students and Young Doctors of Timișoara**. This edition represents more than just an academic event – it is a celebration of curiosity, dedication, and passion that unites us from different parts of the country and the world in the name of medicine and science.

Each abstract included here reflects not only the hours of study and research, but also the courage to share ideas, to take on challenges, and to accept constructive feedback. You have demonstrated not only scientific competence, but also remarkable professional maturity, perseverance, critical thinking, and a genuine desire to contribute to the advancement of medicine. For all of this, we sincerely congratulate you.

Choosing to actively participate in a student congress and to present a scientific work is no easy feat – it means stepping out of your comfort zone, taking responsibility, and putting your ideas forward in front of a specialized audience. And yet, this choice is what sets apart a good student from an exceptional one. Whether this was your first time participating or you are already familiar with the academic stage, each of you brought unique value to this edition of MEDIS, and the credit is entirely yours.

We also extend our heartfelt thanks to the supervisors, professors, and mentors who guided your steps and supported your work. Their involvement, generosity, and trust have been essential to the success of many of these projects.

This Book of Abstracts stands as a testament to the diversity and quality of the research presented during the congress – whether in the form of fundamental science, clinical studies, or surgical studies, every contribution plays an essential role in shaping a vibrant and collaborative academic community.

In closing, we want to express our deep appreciation for the effort, commitment, and enthusiasm with which you chose to be part of MEDIS 2025. You are part of a generation that dares to explore, to question, and to build the future of medicine. May this experience inspire and motivate you, and stay with you as you move forward in your professional journey.

With warmest regards,
The MEDIS 2025 Organizing Committee

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Clinical Case Reports

Cardio-Renal Syndrome: What's More Important, the Heart or the Kidneys?

Author: *Dr. Meche Vlad-Alexandru*
Co-Authors: *Dr. Căpăstraru Flavia-Maria*
Scientific Coordinator: *Lecturer Cons. Dr. Nilima Rajpal Kundnani*

Introduction:

Cardio-renal syndrome is a clinical entity that entails a simultaneous disorder of the cardiovascular and renal system, with one system affecting the other. Due to complex underlying mechanisms, high mortality rates and a multi-faceted treatment, it is important to recognize and treat accordingly.

Case Presentation:

We present a 75-year-old female patient, smoker, obese, with 2nd-degree HT, dyslipidemia, type 2 diabetes, HFpEF, LBBB, CKD KDIGO G2A1, COPD GOLD III, presenting with fatigue, discrete ankle swelling and chronic diarrhea. The ECG shows Afib with RVR. Lab reports revealed occult hemorrhage, AKI AKIN III, nephrotic range proteinuria, negative urine culture, positive pANCA, and moderate anemia.

During the albumin administration patient developed severe cardiogenic APE and cardiac arrest (asystole). Post-resuscitation, she is admitted to ICU (intubated). On cardiac echo EF was 30%, a globally hypokinetic heart, with severe MR and TR. The renal function was on decline.

Lung Rx revealed an OTI-associated bronchopneumonia (but without sepsis). The patient frequently develops severe HT crises, entered Afib with RVR, and then cardiogenic APE.

Given her worsening kidney function, the medical team decided to initiate emergency hemodialysis.

After that, her general state shows slow, gradual improvement in all systems. Her state was stationary for 8 months, until chronic dialysis could no longer be postponed.

At present, she is hemodynamically stable, with EF=50%, mild MR, and TR.

Discussions:

A type III cardio-renal syndrome (acute kidney failure gives acute heart failure) with associated lung damage reportedly has a very high mortality rate. A multidisciplinary approach is necessary, as a low eGFR, immune compromise and mechanisms such as diuretic resistance can complicate an already elaborated issue. Emergency dialysis can represent a last resort for these patients, but a close and careful follow-up is mandatory to ensure optimal long-term results.

Keywords: cardio-renal syndrome; heart failure; kidney injury; dialysis.

A Narrow Pathway: The Complexities and Consequences of Aortic Coarctation

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Introduction:

Aortic coarctation (CoA) is a well-known congenital heart disease (CHD) that frequently coexists with several other vascular and cardiac abnormalities. CoA is characterized by a localized narrowing of the aorta, typically distal to the left subclavian artery. In adults, missing or delayed femoral pulses and a systolic blood pressure differential of at least 20 mm Hg favoring the arms could be signs of aortic coarctation. A favorable prognosis for CoA depends on an accurate and prompt diagnosis because early treatment is linked to a decreased risk of long-term morbidity and mortality. Early recognition and surgical correction are crucial to alleviating severe long-term sequelae, such as refractory hypertension, left ventricular hypertrophy, heart failure, and cardiovascular mortality. However, in rare cases, aortic coarctation remains undiagnosed until adulthood.

Case Report:

We present the case of a 39-year-old male with a complex cardiovascular history, including CoA near the left subclavian artery, pre-stenotic aortic arch dilatation, a bicuspid aortic valve, major right bundle branch block, grade 3 hypertension with high cardiovascular risk, and NYHA class II heart failure

with preserved ejection fraction. The patient experienced recurrent chest pain described as an "ice-like" sensation triggered by exertion. On examination, he was hemodynamically stable and well oriented, with blood pressure measured at 180/100 mmHg in the upper extremities and a gradient of 30 mmHg compared to the lower extremities. Radio-femoral pulse delay was evident, a hallmark sign of aortic coarctation. Auscultation revealed a systolic murmur at the second right intercostal space, while bilateral carotid pulses exhibited Corrigan's sign. Electrocardiography showed a sinus rhythm at 70 beats per minute without acute ischemic changes. Transthoracic echocardiography showed tiger-stripe patterns on the interventricular septum, suggesting cardiac amyloidosis. Echocardiography also showed hypertrophic cardiomyopathy, a condition that is often associated with aortic coarctation.

Discussion:

This case underlines the correlation between congenital and other cardiac disorders, emphasizing the need for early diagnosis and intervention. Late-diagnosed CoA is nonetheless challenging, requiring therapeutic and treatment prioritization to prevent irreversible end-organ damage and raising awareness about this condition could be the key to better outcomes.

Keywords: aortic coarctation; congenital heart disease; adult cardiology.

Diagnosis and Management of Wolff-Parkinson-White Syndrome - From Classroom to Cath Lab

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Introduction:

Wolff-Parkinson-White (WPW) syndrome is a congenital cardiac conduction abnormality characterized by an accessory pathway (bundle of Kent) that bypasses the atrioventricular node and leads to early ventricular activation. While many individuals are asymptomatic, WPW can predispose to supraventricular tachycardia, atrial fibrillation with rapid ventricular response, and, in rare cases, sudden cardiac death. Early detection is crucial for appropriate management, particularly in young, otherwise healthy individuals. This presentation illustrates the clinical significance of WPW syndrome through a compelling real-life case.

Case Presentation:

The case involves R.P., a third-year medical student who got an ECG as a demonstration during a semiology course. He volunteered because of a history of occasional unspecific palpitations that had previously resolved spontaneously. They were triggered after R.P drank coffee or after physical exertion, lasted for 20 minutes with a heart rate of 150-200 bpm . However, the routine ECG revealed a shortened PR interval, a delta wave, and widened QRS complexes, findings suggestive of WPW, prompting immediate concern from his instructor. This finding led to diagnostic and therapeutic interventions to assess and manage his condition.

Discussion:

Following his diagnosis, R.P. underwent an electrophysiological study to assess its conduction properties and identify the location of the accessory pathway, the

possible implication in atrioventricular reentrant tachycardia and the potential associated risk of sudden death. During the procedure, episodes of preexcited atrial fibrillation with a very high ventricular rate (up to 300 beats per minute) were induced, which degenerated into ventricular fibrillation, necessitating immediate electrical cardioversion. Ultimately, the definitive treatment—radiofrequency catheter ablation—was successfully performed, eliminating the aberrant conduction pathway and preventing future arrhythmia episodes.

Conclusions:

This case highlights the importance of recognizing WPW syndrome, even in asymptomatic or minimally symptomatic individuals. It underscores the need for clinicians to be vigilant when interpreting ECGs and to be aware of the potential complications associated with untreated accessory pathways. Furthermore, it provides an overview of the role of electrophysiological studies and catheter ablation in the definitive management of WPW syndrome.

Through this case, we aim to reinforce the importance of early identification and timely intervention in patients with WPW to prevent potentially life-threatening arrhythmias.

Keywords: Wolff-Parkinson-White; electrophysiologic study; radiofrequency ablation; sudden death; preexcited atrial fibrillation.

Neurofibromatosis Type 1 Case Report – The Importance of Early Diagnosis and Long Term Monitoring

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Introduction:

Neurofibromatosis type 1 (NF1) is a monogenic, autosomal dominant genetic disorder with an incidence of approximately 1:2,500-3,000 individuals. It is caused by mutations in the NF1 gene, which encodes neurofibromin, a key regulator of the RAS signaling pathway involved in cell growth, proliferation, and differentiation. Neurofibromin deficiency leads to the development of benign tumors (neurofibromas) and an increased risk of malignancies such as optic gliomas and peripheral sarcomas. Clinical manifestations of NF1 include café-au-lait spots, neurofibromas, Lisch nodules, and, in some cases, scoliosis and cognitive impairments. The disease course is unpredictable and varies significantly both intra- and inter-familially. Recent advances in genetic technology have enabled the identification of novel mutations and opened new therapeutic approaches, including RAS pathway inhibitors. Although no curative treatment exists, continuous monitoring and early interventions can prevent severe complications.

Materials and Methods:

We present the case of a 31-year-old female patient who has been under continuous follow-up at the Regional Center for Medical Genetics Bihor (CRGM) since the age of 10, with a confirmed diagnosis of NF1.

Results:

Phenotypically, the patient exhibits short stature (current height: 143 cm, -3SD), scoliosis, multiple café-au-lait spots distributed across the body, extensive cutaneous neurofibromas, and axillary and inguinal freckling. Ophthalmological examination reveals Lisch nodules. Cranial and spinal MRI imaging shows: cranial and cervical neurofibromas, multiple left paravertebral neurofibromasC6-C7. Molecular testing identified a pathogenic heterozygous mutation in the NF1 gene (NM_001042492.3:c.586+5G>T).

Conclusions:

NF1 requires continuous monitoring and a multidisciplinary approach to optimize patient care. Long-term follow-up has facilitated early identification of complications and adaptation of therapeutic strategies. This case highlights the importance of sustained surveillance over more than 20 years at CRGM, allowing for timely clinical management adjustments. Genetic counseling remains essential for prognosis assessment, personalized therapy, and risk management of genetic transmission.

Hidden Pathogens, Fragile Bones: A Case Report on M. Abscessus and Veillonella Dispar in Osteomyelitis

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Introduction:

Osteomyelitis is a severe bone infection most commonly caused by S. aureus. While Mycobacterium abscessus (a nontuberculous mycobacterium) and Veillonella spp. are uncommon causes of bone infections, they can occasionally contribute to complex cases. This case study highlights the diagnostic and therapeutic challenges in treating such infections, including the use of appropriate antibiotic regimens for M. abscessus, its potential resistance, and the need for surgical interventions. It also emphasizes the importance of considering these less common pathogens early in the diagnostic process to ensure timely and appropriate treatment.

Case Presentation:

This case involves a 27-year-old female who sustained multiple open fractures of the left lower limb and a patellar tendon avulsion following a road traffic accident in Sri Lanka. Initially, she underwent surgical repair for a left hip dislocation and open knee fracture, followed by empirical antibiotic therapy. However, persistent fever and signs of infection necessitated further surgical intervention and a change in the antibiotic treatment.

Upon readmission in Romania, wound cultures identified M. abscessus, Staphylococcus epidermidis, and Veillonella dispar. The initial antibiotic regimen included Ertapenem, Linezolid, Amikacin, and Rifampicin, covering

the full spectrum of identified pathogens for six weeks. Following resistance testing for macrolides, the therapeutic approach was de-escalated to a regimen including Azithromycin, Linezolid, and other targeted antibiotics, balancing efficacy with minimizing adverse effects. Surgical debridement was performed to remove necrotic tissue and excise the patellar button. The patient's clinical course was further complicated by the need for multiple reconstructive surgeries and the development of treatment-related adverse effects, including transient pancytopenia due to Linezolid and ototoxicity from aminoglycosides.

Conclusions:

In the treatment of such complex and rare cases of osteomyelitis there is a clear need for multidisciplinarity as there are a multitude of therapeutic challenges that can appear. The prolonged treatment course, including surgical interventions and antibiotic regimens, highlights the importance of early and accurate pathogen identification, following the protocols for such major trauma cases, as well as the need for personalized antibiotic therapy and possible adverse drug reactions. As this was a rare case with only other few other cases published worldwide, it brings to attention the importance of ongoing research, early testing for uncommon pathogens, and the publication of improved treatment strategies for complex bone infections.

Keywords: M. Abscessus, Veillonella dispar, osteomyelitis; macrolides resistance.

Whispers of the Peritoneum: Tracing the Silent Spread of Pancreatic Malignancy

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Introduction:

Peritoneal carcinomatosis of pancreatic origin is an aggressive malignant condition characterized by locoregional invasion and secondary peritoneal dissemination. The prognosis is generally poor, and management requires a multidisciplinary approach to assess tumor extent and establish the therapeutic strategy.

Materials and Methods:

We present the case of a 46-year-old patient diagnosed with an invasive caudal pancreatic tumor (involving the splenic hilum, lower splenic pole, and left ureter), with possible secondary peritoneal dissemination. The patient presented with weight loss, vomiting, and slowed intestinal transit. Clinical examination revealed a poor general condition, cachexia, signs of peritoneal irritation, and ascites. Imaging investigations (CT of the thorax, abdomen, and pelvis – CT TAP) confirmed the presence of a hypodense infiltrative tumor in the pancreas, with splenic and ureteral invasion, causing grade I/II left hydronephrosis. Additionally, mesenteric and retroperitoneal lymphadenopathy, moderate ascites, and intestinal changes suggestive of peritoneal carcinomatosis were identified. Fine-needle biopsy (FNB) confirmed the diagnosis of moderately differentiated pancreatic ductal adenocarcinoma with marked cellular atypia and necrosis. The patient was referred to oncology for further interdisciplinary evaluation to determine the most appropriate therapeutic options.

Conclusion:

Peritoneal carcinomatosis of pancreatic origin has a poor prognosis, requiring clinical and imaging correlation to determine therapeutic options. In this case, patient management should focus on symptomatic control and evaluation of palliative or oncologic treatment possibilities.

Keywords: peritoneal carcinomatosis, pancreatic carcinoma, malignancy, CT TAP, FNB biopsy

COVID-19 Related Myocarditis and Myositis in a Patient with Underlying Autoimmune Disease

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Introduction:

COVID-19 exhibits a wide range of clinical presentations, from mild respiratory symptoms to multi-organ involvement, including myocarditis and myositis. Antisynthetase syndrome (ASS) is a rare autoimmune disorder characterized by inflammatory myopathy and interstitial lung disease, often linked to specific autoantibodies. While viral infections have been implicated in triggering autoimmune diseases, the relationship between SARS-CoV-2 and ASS remains poorly understood.

Case Presentation:

A 62-year-old unvaccinated male with a history of hypertension and type 2 diabetes presented with sudden-onset loss of consciousness and severe muscle pain, predominantly in the upper limbs. He had no respiratory symptoms. A rapid antigen test confirmed COVID-19. Laboratory investigations revealed significantly elevated inflammatory markers (CRP 59.5 mg/L, procalcitonin 68.03 ng/L) and cardiac enzymes (hsTnI 8248 ng/L, CK 51432 U/L, CK-MB 189 U/L). ECG showed no ischemic changes, and pulmonary CT angiography ruled out pulmonary embolism but revealed mild ground-glass opacities. Transthoracic echocardiography identified severe hypokinesia of multiple left ventricular segments and an ejection fraction of 34%. Coronary angiography found no obstructive lesions, ruling out ischemic heart disease. Due to suspected inflammatory myocarditis, high-dose corticosteroids were initiated, alongside antibiotics for a concurrent Klebsiella pneumoniae pulmonary infection. The patient showed gradual clinical and biochemical improvement. Given the

persistence of muscle weakness, further autoimmune testing was performed, revealing positive anti-PL-7 antibodies, suggestive of ASS.

Discussions:

This case highlights the potential of SARS-CoV-2 infection to trigger inflammatory myositis and myocarditis in predisposed individuals. The presence of anti-PL-7 antibodies suggests an autoimmune mechanism, underscoring the need for autoimmune screening in atypical COVID-19 cases. Further studies are required to elucidate the interplay between COVID-19 and autoimmune disorders to guide appropriate management.

Keywords: COVID-19; myocarditis; myositis; antisynthetase syndrome.

Systemic Challenges in Cystic Fibrosis: A Case of Early Onset and Rapid Decline

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Background:

Cystic fibrosis (CF) is an autosomal recessive, monogenic disorder caused by mutations of the CF transmembrane conductance regulator gene, leading to altered exocrine gland function. It presents with variable symptoms and an unpredictable progression.

Case Description:

We report the case of a 4-year-old male, delivered at 40 weeks, weighing 2950 g, with an Apgar score of 7. Family history revealed a sibling's death caused by meconium ileus. At 1 month old, he was diagnosed with megacolon, followed by frequent hospitalizations for respiratory infections and steatorrhea. At 3 years and 9 months, worsening symptoms, marked by severe growth failure, digital clubbing, and dental dystrophies, prompted CF investigations, which revealed normocytic anemia, cirrhosis, portal hypertension, and dolichosigmoid. Pilocarpine iontophoresis confirmed the diagnosis (sweat chloride: 134 mmol/L), supported by genetic testing identifying a heterozygous ΔF508 mutation, known for its association with severe complications (Brennan & Schrijver, 2016). Extensive involvement reflecting the aggressive course of the disease was observed upon postmortem examination. Respiratory findings included pleural effusion, bronchiectasis, purulent bronchitis, and pulmonary edema, consistent with recurrent infections and chronic respiratory failure.

Myocardial interstitial edema and pericardial effusion reflected systemic congestion. Gastrointestinal findings included esophageal varices, while preserved colon ganglion cells excluded Hirschsprung's disease as a megacolon cause. Advanced biliary cirrhosis with liver nodules and pancreatic atrophy explained portal hypertension, malabsorption, and failure to thrive. Immune dysfunction, evidenced by thymic involution and lymphoid depopulation, underlined CF's widespread impact.

Conclusions:

These findings emphasize the mixed phenotype of CF in this heterozygous patient, uncommonly leading to severe multisystemic complications. Approximately 20% of neonates with CF exhibit meconium ileus (Brennan & Schrijver, 2016), strongly linked with the ΔF508 mutation, present in up to 80–90% of patients (Betapudi et al., 2025). Early pulmonary manifestations include bronchiectasis, detectable in 20% of children up to 6 years (Schultz & Stick, 2015). Severe liver disease, including multilobular cirrhosis and portal hypertension affects 5–10% of children within the first decade of life (Betapudi et al., 2025). In such cases, early diagnosis and aggressive management are of critical importance in order to mitigate CF's widespread and progressive impact.

Keywords: cystic fibrosis; biliary cirrhosis; megacolon; pulmonary edema.

Left Coronary Takes An Unexpected Path: Anomaly Of Origin Hiding Behind Chest Pain

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Introduction:

Abberant origin of coronary artery is a rare congenital anomaly, with a prevalence of 0.24- 1.6%, which predisposes to myocardial ischemia and sudden death.

Case presentation:

A 56-year-old female was referred for evaluation of typical angina. Her clinical presentation was concerning for ischemic heart disease in the presence of traditional cardiovascular risk factors such as peripheral artery disease, essential hypertension grade II, chronic obstructive pulmonary disease and long-term smoking. Transthoracic echocardiography indicated a non-dilated left ventricle, with a preserved ejection fraction and hypokinesia at the level of the septum and left wall. The coronary angiogram came with a surprise: an anomaly of origin, with the left coronary artery (LMCA) departing from the right sinus of Valsalva, in close proximity to the origin of the right coronary (RCA). Could the angina be the consequence of the left coronary artery being compressed between the aorta and the pulmonary artery? A multidetector computed tomographic angiography was performed to address this question. This technique once again

confirmed the common origin of LMCA and RCA in the right coronary sinus. The trajectory was intramural, in the infundibular area of the pulmonary artery wall, suggesting a prepulmonary variant of the anomaly. With each systole, the muscle contracted and the artery was strangled, hence the pain. To evaluate the impact of the artery trajectory on the oxygenation of the heart muscle, a myocardial stress scintigraphy was performed, resulting in no supplementary ECG changes, perfusion disorders or ischemia, apart from the previously mentioned hypokinesia. In this context, presently, the patient has no indication for cardiovascular surgery and was recommended medical therapy.

Conclusions:

This case exemplifies the importance of thorough diagnostic workup in patients presenting with unexplained chest pain. The anomalous origin of a coronary artery is a rare find, the symptoms being caused in this case by the strangulation of the left coronary during systole. Should the obstruction of the right coronary ostium occur, the patient will be left with no viable arteries, which will lead to her imminent death. Avoiding this scenario is the key to the entire case and a challenge in its own right.

Keywords: left coronary anomaly; common ostium; chest pain; arterial strangulation.

The Challenging Interplay of Pulmonary Embolism and Thrombocytopenia in Septic Shock: A Case Report

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Introduction:

Septic shock is a life-threatening condition characterized by systemic inflammation, widespread vasodilation, and circulatory collapse, resulting from a severe infection that leads to organ dysfunction and inadequate tissue perfusion. Thrombocytopenia, defined as a platelet count of less than 100 × 10^9/L, can increase the risk of bleeding due to impaired clot formation.

The thrombi formation in major blood vessels is a possible complication of septic shock and can lead to irreversible ischemic lesions. This thrombus formation accelerates the consumption of platelets and coagulation factors, further worsening the existing thrombocytopenia and increasing the risk of hemorrhagic events.

Case Presentation:

We present the case of a 61-year-old male with a history of hypertension and recent pneumonia, who arrived at the emergency room with complaints of dyspnea. Initial assessment revealed hypotension (70/50 mmHg) and tachycardia (130 bpm), which combined with an elevated D-dimer level (8.93 mg/L) raised concerns about septic shock. Bacteriological testing was initiated, and chest CT angiography identified multiple thrombi in the median pulmonary artery (PESI class V, 171 points) along with a "ground-glass" lung appearance, suggesting an infectious process. Following abdominal CT results indicating

inflammatory changes in the urinary bladder, treatment with Cefort was started. Laboratory findings revealed severe thrombocytopenia, preventing the administration of full-dose anticoagulation therapy (enoxaparin) to dissolve the thrombi. Instead, a prophylactic dose of enoxaparin (20 mg/24 h) was given, along with plasma replacement therapy. Two days later, bacteriological results confirmed methicillin-sensitive Staphylococcus aureus, methicillin-resistant Staphylococcus hominis, and methicillin-resistant Staphylococcus haemolyticus, revealing dual infections in the lungs and urinary tract. A combination of Cefort, Avelox (moxifloxacin), Meronem, Linezolid, and Normix (rifaximin) was initiated, and the patient was discharged after 10 days.

Discussion:

In septic shock, the interplay between coagulopathy, thrombocytopenia, and thrombus formation presents a complex clinical challenge. This case emphasizes the need for a dynamic, individualized approach to manage both thrombotic and hemorrhagic complications. Continuous adjustment of anticoagulant therapy, based on platelet fluctuations, is essential to maintain a balance between treating these interrelated conditions and optimizing patient outcomes.

Keywords: pulmonary embolism; thrombocytopenia; septic shock.

A Rare Case of Unicuspid Aortic Valve in a Young Male: Navigating Complex Management Challenges

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Introduction:

A unicuspid aortic valve is an extremely rare congenital heart defect with an estimated incidence of approximately 0.02% to 0.04% of the population. Unicuspid aortic valve disease has two types: acommissural and unicommissural. The unicommissural type is more common and generally less severe, whereas the acommissural type often presents with critical aortic stenosis and requires early intervention.

Case Report:

A 36-year-old male known with HIV infection with undetectable viremia was admitted to the hospital for cardiovascular evaluation following an episode of presyncope. On examination, the patient was hemodynamically stable with grade V parasternal heart murmur and no signs of congestions on admission. Comprehensive echocardiographic evaluation, including transthoracic and transesophageal echocardiography, revealed a malformed unicuspid aortic valve (unicommissural) with severe aortic stenosis, minor aortic regurgitation and a non-dilated left ventricle with concentric hypertrophy, indicating pressure overload and compensatory adaptation to the stenotic valve. In light of these

findings and due to his young age, the patient was deemed a candidate for surgical aortic valve replacement, emphasizing the necessity to exclude any active infections prior to surgery due to his immunocompromised status. At discharge, he was advised to avoid physical exertion and to continue antiretroviral therapy with Biktarvy to maintain viral suppression until surgical intervention could be performed.

Discussions:

Unicuspid aortic valve combined with HIV infection increases the risk of infective endocarditis and complicates surgical management due to immune compromise and higher postoperative infection risk. Careful selection of prosthetic valves is needed due to interactions between anticoagulants and antiretroviral therapy. A multidisciplinary approach is essential for optimal surgical timing and long-term management.

Conclusions:

Unicuspid aortic valve is a rare congenital anomaly that rapidly progresses to severe aortic stenosis due to early calcification and turbulent flow. This case highlights the need for early detection and proactive management to prevent hemodynamic compromise. Surgical intervention is often required at a young age, with careful valve selection to ensure long-term outcomes.

Keywords: unicuspid aortic valve; echocardiography; HIV.

Unusual Cutaneous Manifestation in Multiple Myeloma: A Diagnostic Challenge

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Introduction:

Multiple myeloma (MM) is a hematological malignancy affecting plasma cells, sometimes presenting with atypical cutaneous manifestations that complicate diagnosis.

Case Presentation:

An 84-year-old male presented with epigastric pain, weight loss, asthenia, and lower limb neuropathy. His medical history included rheumatoid arthritis and type 2 diabetes (on oral therapy). Laboratory tests revealed hyperchromic macrocytic anemia, low vitamin B12, elevated inflammatory markers, and significantly high IgG levels (32.72 g/L). MM was confirmed via bone marrow aspiration, which showed plasma cell infiltration, including binucleated and multinucleated cells. Serum protein immunoelectrophoresis detected monoclonal IgG and kappa light chains.

The patient's initial treatment regimen, as decided by the hematologist, consisted of Daratumumab, Lenalidomide, and Dexamethasone but he returned six months later with a persistent, painful, well-defined 2 cm ulcer on the left plantar surface. A dermatological evaluation led to the diagnosis of left malum perforans, considered a cutaneous manifestation of MM in the context of

underlying neuropathy. Histopathology confirmed the diagnosis, ruling out other causes such as pyoderma gangrenosum, vasculitis, or septic emboli. Wound care with hydrocolloid dressings led to a favorable clinical progression.

Discussion:

The particularity of this case lies in the absence of significant bone damage (no skull radiographic changes), as well as the absence of renal dysfunction, both common in MM, alongside secondary cutaneous involvement, specifically malum perforans. Although neuropathy is often linked to type 2 diabetes, its well-controlled status suggests MM as the primary cause. Other potential causes were ruled out, as symptoms persisted despite B12 correction. Malum perforans in MM may result from peripheral neuropathy due to plasma cell infiltration, monoclonal protein deposition, and inflammatory cytokines (IL-6, TNF-α) contributing to nerve damage and poor wound healing. Prognosis depends on disease severity and response to treatment. While the absence of bone and renal involvement suggests a milder form, neuropathy and skin lesions may indicate a more aggressive course, requiring close monitoring.

Conclusions:

This case illustrates an unusual presentation of MM, absent of typical bone damage and renal dysfunction. Instead, the patient displayed a rare cutaneous manifestation, emphasizing the importance of thorough evaluation and individualized management.

Keywords: multiple myeloma; cutaneous manifestations; malum perforans.

Neurological Involvement in Systemic Lupus Erythematosus or CADASIL Syndrome?

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Introduction:

CADASIL, an acronym for "cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy," is a genetic disorder characterized by the progressive thickening of small blood vessels in the brain. This vascular dysfunction leads to various neurological symptoms, including recurrent headaches, multiple strokes, cognitive decline, and depression. Similarly, systemic lupus erythematosus (SLE) can affect the central nervous system, presenting with a broad spectrum of manifestations ranging from mild headaches to severe cerebrovascular events such as strokes.

Case Report:

A 50-year-old woman was diagnosed with subacute cutaneous lupus erythematosus (SCLE) 12 years ago after developing a skin rash, which was biopsied. Histopathological findings, combined with positive antinuclear antibodies (ANA), confirmed the diagnosis, and she was treated with hydroxychloroquine 400 mg/day, with no further skin manifestations.

Over time, the patient's condition deteriorated, presenting with muscle weakness, chronic headaches, insomnia, and depression. Immunological tests revealed positive ANA with a nuclear membrane pattern, negative anti-Sm and anti-dsDNA antibodies, and normal complement levels (C3 and C4).

Given the neurological symptoms in a patient with no famillial history of neurological pathology, an association with SCLE was initially suspected. However, T2 weighted sequences with fat suppression in brain magnetic resonance imaging (MRI) revealed multiple focal cerebral lesions with a vascular appearance (small subcortical infarcts and microbleeding), consistent with disseminated leukoencephalopathy (white matter hyperintensities), affecting both cerebral hemispheres. A suspicion of CADASIL syndrome was raised and it was subsequently confirmed through genetic sequencing of the NOTCH3 gene.

Discussions:

Based on the findings from the latest immunological tests and brain MRI, the patient does not meet the classification criteria for SLE. While the coexistence of these two conditions is most likely coincidental, the inflammation of the blood vessels in SLE can increase the risk of the strokes associated with CADASIL syndrome.

Conclusions:

This case report highlights the importance of considering rare diseases in the diagnostic process, particularly when patients present with overlapping clinical symptoms. A thorough clinical evaluation, supported by advanced imaging and genetic testing, is essential for accurate diagnosis and appropriate management. While immunosuppression is the indicated therapy in SLE, CADASIL syndrome implies patient monitoring and neurological symptomatic treatment.

Keywords: systemic lupus erythematosus; NOTCH3 gene; CADASIL syndrome.

Hepatic Decompensation in Cirrhosis: Importance of Clinical Monitoring – A Case Report

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Introduction:

Cirrhosis is a chronic liver disease marked by fibrosis and architectural distortion, leading to progressive dysfunction. Hepatic decompensation, characterized by ascites, encephalopathy, and variceal bleeding, significantly increases morbidity and mortality. This case underscores the importance of clinical monitoring and early intervention in cirrhotic patients.

Case presentation:

A 65-year-old male with mixed toxic and viral (HBV) cirrhosis, undergoing antiviral therapy, was admitted with severe fatigue, asthenia, progressive abdominal distension, and dyspnea. Examination revealed jaundice, reduced subcutaneous tissue, collateral circulation, ascites, bilateral leg edema, and temporal-spatial disorientation. Laboratory findings showed CRP 56.60 mg/L, total bilirubin 1.66 mg/dL, hyponatremia (126.00 mmol/L), hyperammonemia (136.00 µmol/L), INR 1.35, PT 15.0 sec, hypoalbuminemia (2.60 g/dL), and positive HBs antigen. Ascitic fluid analysis showed SAAG 1.4 g/dL, moderate cellularity (58% PMNs, 14% lymphocytes, 28% macrophages and mesothelial cells), and LDH 40 U/L. Upper endoscopy revealed portal hypertensive gastropathy and grade II esophageal varices. Ultrasound confirmed cirrhosis, portal hypertension, splenomegaly, and large-volume ascites.

During hospitalization, the patient received albumin, diuretics, ammonia-lowering agents, hepatoprotectors, proton pump inhibitors, and repeated paracentesis (10L of citrine, milky ascitic fluid). Despite prior diagnosis (Child-Pugh C, score 10), his condition deteriorated due to poor compliance and continued alcohol use, resulting in severe hepatic decompensation and encephalopathy. He was advised to abstain from alcohol, but given his Child-Pugh C status, prognosis remained poor (one-year survival ~45%). Liver transplantation was not considered due to the toxic etiology.

On subsequent admissions, the patient developed left hemithorax involvement. Thoracocentesis revealed a lymphocyte-rich pleural effusion, with ongoing investigations for tuberculosis.

Conclusion:

This case highlights the consequences of noncompliance in cirrhosis, emphasizing the need for frequent monitoring every 1–2 months, early therapeutic adjustments, and strict patient education to prevent further decompensation and improve outcomes.

Keywords: encephalopathy; cirrhotic decompensation; portal hypertension; paracentesis.

Defying the Odds: A 70-Year Journey with Incomplete Tetralogy of Fallot Repair

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Introduction:

Partially corrected congenital cardiac malformations, are a pathology that can poses problems in adult life. When complications arise, especially heart failure, pacients demand distinct therapeutic approach.

Case report:

A 70-year-old patient with history of congenital heart disease (tetralogy of Fallot, pulmonary valvulotomy at age 7) and pulmonary tuberculosis presents with severe cardiorespiratory failure. The patient, on chronic treatment since the time of detection of atrial fibrillation, had occasional cardiac check-ups. Physical exam reveals central and peripheral cyanosis, hippocratic fingers, tachycardia, arrhythmic heartbeats (125/min), mesocardiac systolic murmur grade 5 with irradiation throughout the cardiac area, mitral systolic murmur grade 5 with irradiation in the axilla, BP 110/80 mmHg, spontaneous SaO2 46%, bilateral alveolar crackles, jugular vein distention, lower limb edema, and painful hepatomegaly. ECG shows atrial fibrillation, diffuse myocardial ischemia. Echocardiography reveals a ventricular septal defect of 1.5 cm with bidirectional shunt, aorta overriding on the interventricular septum, aneurysmal dilatation of the pulmonary artery trunk, middle pulmonary stenosis, severe tricuspid and mitral regurgitation, severe pulmonary hypertension, LV diastolic dysfunction, pleural, pericardic fluid, ascites. The patient also presents with chronic compensated hypoxia (polycythemia, Hb = 19.7 g/dL, Hct = 58%),

hepatic dysfunction, and acute-on-chronic respiratory failure due to intracardiac shunting, pulmonary congestion, and fibrosis. Paraclinic findings include hyponatremia and hyperkalemia. The patient is undergoing treatment with low-flow oxygen therapy, diuretics, beta-blocker, cardiotonic agent, SGLT2 inhibitor, uricosuric agent, and fluid-electrolyte rebalancing. The clinical and hemodynamic course has been favorable, with resolution of fluid retention and significant improvement in respiratory insufficiency.

Discussions:

The patient has a cyanotic congenital malformation partially corrected in childhood, with favorable evolution. Pulmonary stenosis recurred, offering partial protection, but severe pulmonary hypertension developed, along with a bidirectional intracardiac shunt and hepatic dysfunction. The main problems were management of respiratory failure, diuretic and anticoagulant treatment, considering chronic hypoxia, hydro-electrolyte imbalances and coagulation disorders associated with hepato-cardiac syndrome.

Conclusions:

Patients with congenital heart defects should be closely monitored clinically and with periodic echocardiograms. Upon heart failure onset, they should receive appropriate therapies based on the stage of cardiac dysfunction.

Keywords: Tetralogy of Fallot; heart failure; hypoxic respiratory failure; hepatocardiac syndrome.

The Fog Lifts: Dissecting Central Serous Retinopathy From Symptoms To Sollutions

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Introduction:

Central Serous Retinopathy (CSR) is a vision-threatening condition marked by serous retinal detachment, often linked to stress, corticosteroids, and autonomic dysfunction. Though typically self-limiting, chronic cases can cause significant visual impairment, requiring prompt diagnosis and treatment. This presentation explores key diagnostic challenges, paraclinical examinations and treatment options, with emphasis on multimodal imaging and evolving therapies, including pharmacologic and laser interventions.

Case report:

A 50-year-old male presents with decreased vision in the left eye (VAOD=1 FC, VAOS=0.2 FC, NC). Paraclinical investigations, including fundus examination and OCT (Optical Coherence Tomography), reveal a detached retina with serous detachments beneath the sensory retina. Hyperreflectivity in the fluid area shows subretinal fluid as a hyporeflective (darker) region. Though spontaneous remission occurs in most cases, recurrences are frequent. Treatment for this condition includes topical anti-inflammatory agents, vascular trophic agents, and diuretics (acetazolamide), all recommended in this case. The treatment of the underlying condition is also mandatory. Additionally, in more severe manifestations, YAG laser therapy may be used, but caution is advisable due to the risk of accentuating the existing inflammation.

Discussions:

Symptoms of CSR can overlap with other conditions. Key differential diagnoses include age-related macular degeneration, typically linked to retinal pigment epithelium dysfunction, and diabetic macular edema, associated with diabetic retinopathy. However, CSR is distinct for its serous detachment without neovascularization or significant RPE atrophy, as seen in diabetes. While CSR's cause remains idiopathic, studies show important risk factors, such as higher prevalence in young men with Type A personalities, anxious and stress-prone. In these individuals, elevated glucocorticoid levels may contribute to retinal hyperpermeability, leading to fluid accumulation in the retina.

Conclusions:

CSR, an idiopathic condition often linked to stress and glucocorticoid use, requires thorough paraclinical examination, essential for a differential diagnosis, especially given its non-specific symptoms that can overlap with other conditions. Accurate diagnosis enables prompt and appropriate management, allowing tailored treatment to the individual patient, considering both the underlying causes and the severity of the condition, is key to improving outcomes and minimizing the risk of recurrence.

Keywords: multimodal imaging; retinal detachment; laser treatment; glucocorticoids.

Misleading Gastrointestinal Symptoms in Diabetes: How Thoraco-abdominal Neuropathy Complicates Diagnosis

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Background:

Gastroparesis is a condition characterized by delayed gastric emptying (GE) in the absence of mechanical obstruction. Diabetic gastroparesis is a form of autonomic neuropathy resulting from vagal nerve damage, enteric nervous system dysfunction, and loss of interstitial cells of Cajal. It affects approximately 1.3% of type 2 diabetes patients, typically those with long-standing disease and poor glycemic control.

Case Report:

A 64-year-old female presented with nausea, vomiting, early satiety and upper abdominal pain. Diagnosed with type 2 diabetes 8 years ago and diabetic polyneuropathy, she had discontinued insulin therapy one year earlier. Abdominal CT was normal, but based on clinical suspicion, laparoscopic cholecystectomy for acute acalculous cholecystitis was performed. Symptoms persisted, the patient was readmitted 5 days later with uncontrolled diabetes and suspected angiocholitis, for which she was treated, though cholangio-MRI was normal. Two months later, she was readmitted with recurrent symptoms and weight loss. Esophagogastroduodenoscopy (EGD) revealed liquid gastric content, leading to a diagnosis of congestive gastritis treated with proton pump inhibitors. Her condition continued to worsen, and she was admitted again one

month later with persistent hyperglycemia, altered general condition, pallor and generalized hypotonia. Physical examination revealed segmental hypoesthesia (D8-D10), a positive Bouveret sign, and abdominal distension without tenderness. Biochemical tests showed moderate anemia, hypoalbuminemia, hypoproteinemia, severe hypokalemia and hyperglycemia. Abdominal ultrasound revealed gastric distension with mixed content. Hydroelectrolytic deficits were corrected, and EGD showed no signs of occlusion. GE scintigraphy confirmed severe gastroparesis (35% retention at 4 hours). The treatment with prokinetics, antiemetics, and glycemic control was effective.

Discussions:

Gastroparesis is often misdiagnosed as gastric outlet obstruction, functional dyspepsia or biliary disease, delaying treatment. In this particular case, the association with thoraco-abdominal neuropathy complicated the diagnosis process, mimicking gallbladder disease, which led to unnecessary surgery.

While prokinetics, glycemic control, and dietary modifications remain first-line treatment, only 30-50% of diabetic patients show significant improvement. Gastric electrical stimulation and pyloromyotomy offer options for refractory cases.

Conclusions:

Gastroparesis is a serious complication of diabetes with a major impact on quality of life, particularly in patients with poor glycemic control. Early recognition and multidisciplinary management are essential to improve outcomes.

Keywords: gastroparesis; diabetes; cholecystitis; thoraco-abdominal neuropathy.

Luminal B Stage 4 Breast Cancer: A Brave Fight, a Silent Goodbye

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Introduction:
Stage 4 breast cancer is advanced breast cancer that has metastasized, or spread, from the original location in the breast to other organs of the body. The most common areas for invasive ductal breast cancer to spread to are the bones, lungs, liver or brain and for invasive lobular breast cancer the cells can travel to the uterus, ovaries, stomach or colon. Luminal B tumors represent the most frequent subtypes of breast cancer.

Case presentation:
The pacient is a 71-year-old woman diagnosed with luminal B stage 4 right breast cancer, in March 2023. At the time of first presentation, the pacient's general condition was slightly altered, with pale skin, ankle edema, hyperglycemia and hypertension**.** The CT revealed a massive pleural effusion on the left side, with complete atelectasis of the lung parenchyma and mass effect on the mediastinal structures, as well as a right pleural effusion. A right breast tumor formation was identified on the ultrasound, along with deep mammary nodules and right axillary lymphadenopathy. Treatment was initiated in March 2023 with hormone therapy and CDK 4/6 inhibitors, as well as Denosumab for bone metastases. As side effects presented hyponatremia, grade 2 anemia, grade 2 leukopenia with neutropenia and mildly impaired renal function. In December 2024, the patient's general condition worsened, and she reported persistent nausea and vomiting. Laboratory tests revealed hyponatremia. Supportive treatment was administered. In January 2025, the patient was hospitalized urgently for epigastric discomfort, altered general condition, and repetitive vomiting. Laboratory tests revealed severe hyponatremia. An upper gastrointestinal endoscopy showed esophagitis, erythematous gastritis, and suspected antral tumor formation with pyloric stenosis; biopsy results revealed the presence of gastric metastasis from the

breast cancer known with the same immunochemistry characteristics. The patient's condition deteriorated with multiple organ failure, and despite efforts to stabilize them, the patient passed away.

Discussion:
Breast cancer is one of the most frequent tumors, but gastric metastasis is nevertheless an infrequent phenomenon in the natural history of breast cancer. Gastric metastases have been recognized in 0.3-18% of patients with generalized breast cancer. Metastatic spread to the stomach may occur many years after the initial treatment for breast cancer.

Keywords: Luminal B; gastric metastasis; CDK 4/6 inhibitors.

Between Clotting and Bleeding: The Challenge of Prolonged Anticoagulant Therapy

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Introduction:

Patients with mechanical valve prostheses using long-term coumarin anticoagulants face a double risk: thrombotic and hemorrhagic. Maintaining this balance requires ongoing collaboration between patient and physician to minimize the risks.

Case Report:

A 62-year-old patient diagnosed with post-rheumatic mitro-aortic disease since 2003, for whom aortic valve replacement with a double disk mechanical prosthesis was performed, associated with atrial fibrillation since 2016, presents for palpitations, increased fatigability with minimal exertion, nausea, recurrent vomiting, intense postprandial epigastric pain. Physical examination revealed tachyarrhythmic heart sounds with a ventricular rate of 130 bpm, audible metalic prosthetic click, mitral diastolic murmur, bilateral basal pulmonary rales, SaO 2 98%. Electrocardiography demonstrated atrial fibrillation with rapid ventricular response. Echocardiography identified a double-disk aortic prosthesis with mild intraprosthetic regurgitation, a calcified mitral valve with an area of 1.3 cm 2 , and a hyperechogenic intraatrial mass suspicious for thrombus, subsequently confirmed by advanced imaging modalities. Laboratory findings included an INR of 1.5 with hemogram,
liver and kidney function tests, and metabolic profile within normal limits. At 48 hours post-admission, the patient exhibited melena, accompanied by hemoglobin decline of 7g/dl. Upper gastrointestinal endoscopy identified a duodenal bulb ulcer. The case posed significant challenges regarding

anticoagulation management and hemodinamica stabilization. A conservative therapeutic strategy was employed, consisting in high doses of PPI, intravenous fluid rebalancing, beta-blockers, digitalis, anticoagulation, analgesia and antispastic therapy, alongside prophylactic measures for infective endocarditis. The clinical course was favorable. Ongoing management requires close clinical, ultrasonographic, and biochemical monitoring, particularly of INR, along with reassessment for potential surgical intervention on the mitral valve.

Discussions:

Dicoumarin remains the first-line anticoagulant for lifelong use in patients with mechanical valve prostheses. However, both thrombotic and hemorrhagic complications can arise. This patient experienced intraatrial thrombosis and moderate digestive hemorrhagic complications, creating therapeutic challenges. GI bleeding may recur with varying severity and requires either medical or interventional treatment. Thrombosis in anticoagulated patients often results from underdosing due to negligence, mismanagement, or unrecognized drug interactions.

Conclusions:

Regular monitoring of coagulation through monthly INR assessments (target 2.5-3.5), routine clinical and ultrasonographic evaluations, patient education are crucial for preventing complications and improving survival in patients with mechanical valve prostheses.

Keywords: mechanical valve prostheses; dicoumarin therapy; upper gastrointestinal bleeding; intraatrial thrombosis.

Itching Without Rash: an Unusual Case Where Liver Function Holds the Answer

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Introduction:

Intrahepatic cholestasis of pregnancy (ICP) is a pregnancy-induced liver disorder characterized by intense pruritus, particularly in the third trimester, along with elevated alanine aminotransferase (ALT) and hypercholanemia. It is diagnosed after excluding other liver dysfunctions or causes of itching. While pre-existing liver conditions may be present, hormonal changes during pregnancy can unmask ICP symptoms.

Case Report:

We present the case of a 34-year-old woman, 32 weeks pregnant, who presented to the doctor's private practice with intense, diffuse pruritus, predominantly palmar and plantar, without visible cutaneous lesions. The itching worsened over the past few weeks, particularly at night. She had no abdominal pain, jaundice, fever, or systemic symptoms and no history of liver, autoimmune, or metabolic diseases. Laboratory investigations revealed normal complete blood count, coagulogram, bilirubin, and renal tests. However, serum bile acids and transaminases were significantly elevated (contrary to the first trimester), whereas cholestasis enzymes, alkaline phosphatase and gamma-glutamyl transferase (GGT), were within normal range. Viral hepatitis and other liver infections were ruled out. Elevated serum bile acids suggest ICP, but in this case

the normal levels of cholestasis enzymes can delay diagnosis. Differential diagnoses, including primary biliary cholangitis, autoimmune hepatitis, viral hepatitis, Budd-Chiari syndrome and HELLP syndrome, were excluded through serology, imaging, and clinical assessment. The final diagnosis was ICP and the patient was treated with ursodeoxycholic acid (15mg/kg/day), resulting in partial symptom relief and a decrease in serum bile acid levels, which normalized after the delivery of a healthy infant. The resolution of pruritus and normalization of transaminase and bile acid levels post-delivery support the final diagnosis.

Conclusions:

This case highlights the importance of measuring bile acids in pregnant women with pruritus, even without cholestasis enzyme changes. Elevated bile acid levels are the primary predictive factor for fetal risk, making early recognition and management crucial for improving maternal and fetal outcomes. To expedite diagnosis, a recent study suggests that combining ALT, bilirubin, GGT, alkaline phosphatase into a lab score can reliably exclude ICP, useful when serum bile acid measurement isn't available.

Keywords: hepatic; cholestasis; pregnancy; hypercholanemia.

RSP Infection and Pulomnary Hypertension in a Critical Pediatric Case

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Introduction:

The latest research carried out through two large PERCH and EPIC studies reported that 12.8% of all deaths in children under 5 years old is pneumonia, the main etiological cause being the respiratory syncytial virus(RSV) infection. Pulmonary hypertension(PH) has been observed in up to 75% of infants with moderate to severe RSV bronchiolitis or pneumonia and is associated with significant morbidity and mortality especially in infants with congenital heart disease.

Case Description:

A 26-day-old infant presented with severe cough and respiratory distress, without past medical conditions. Her family history shows that her father recently suffered from acute upper respiratory tract infection. The illness began abruptly, and despite initial antibiotic treatment (Ospamox), the patient showed no improvement. When the infant arrived at the Emergency Unit, she was in a mildly compromised general condition, with moderate hypoxemia and symmetric intercostal retractions. Respiratory examination revealed diffuse fine crackles, wheezing, and basal crepitations on the right side. Oxygen saturation was measured at 92%. Because of the age, the respiratory distress without fever and the negative inflammation parameters we suspected heart failure due to congenital heart malformation reason why we checked the cardiac markers(NT-proBNP, troponin and CK-MB)that were elevated. Further we did a chest X-ray

which showed bilateral pulmonary consolidation with a paracardiac focus on the right and the test for RVS turned positive. Other tests revealed elevated transaminases, indicating hepatocellular injury and hydroelectrolytic imbalance. Further investigation identified mild pulmonary hypertension and foramen ovale patent with normal myocardial contractility. Therefore the diagnosis was of acute RVS pneumonia with moderate/severe respiratory distress, pulmonary hypertension and hydroelectrolytic imbalance. Taking into account the age and the degree of decompensation but also the clinical aspect, we could not exclude a bacterial infection so we initiated empirical antibiotic therapy (Ampicillin and Gentamicin) and intravenous corticosteroids. To alleviate the respiratory simptoms we administered aerosolized adrenaline and after four days, because the patient's condition improved, the oxygen therapy was discontinued.

Conclusions:

Pulmonary hypertension detected by echocardiography during RSV infection was associated with increased morbidity and mortality especially at young ages. Correct and prompt management of the case being necessary in a multidisciplinary team.

Keywords: respiratory syncytial virus; pneumonia; pulmonary hypertension; patent foramen ovale.

Buschke-Fischer-Brauer Syndrome: From Clinical Suspicion to Diagnosis

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Introduction:

Buschke-Fisher-Brauer syndrome is a rare hereditary autosomal dominant disease. This syndrome is part of the palmoplantar keratodermas(PPK) that are clinically characteristic by abnormal keratinisation that only affects hands and feet. Differential diagnosis is crucial to rule out the possibility of paraneoplastic syndromes which can be associated other hyperkeratodermas and can be concluded by a histopathological examination.

Case Report:

We report a case of a 84-year-old man with postprandial epigastralgia, nausea, asthenia, retrosternal pain at efforts of moderate intensity, loss of appetite associated with slight weight loss and type II arterial hypertension. During the clinical examination, multiple yellow and brown hyperkeratotic papules were detected on the palmar and plantar surfaces of the hands and feet, without being localised on other areas of the body. The skin pathology developed insidiously, having its onset about 41 years before, with small hyperkeratotic papules, which increased in size over the years . Patient mentioned that his two sons share the same skin condition. The patient refused to perform a biopsy from the level of hyperkeratotic macules; the diagnosis of BFB syndrome could however be established due to the typical appearance of the hyperkeratoses, the classic palmo-plantar disposition, and due to the apparent autosomal dominant transmission with onset at adulthood. Normal PSA(Prostatic Specific Antigen) level along with the presence of a sigmoid diverticulitis without obvious

inflammatory or tumoral lesions had helped in making the differential diagnosis of other hyperkeratodermas associated with neoplasms.

Conclusions:

Buschke-Fisher-Brauer syndrome is a rare hereditary dermatological condition that is part of the punctate palmoplantar keratoderma group. We presented the case of an elderly patient with a long evolution of palmoplantar keratoderma, confirmed as Buschke-Fisher-Brauer syndrome by the typical clinical appearance, the onset in adulthood and the positive family history for this pathology. The particularities of the case are represented by the rarity of this syndrome and the long asymptomatic evolution of hyperkeratosis in the patient.

Keywords: Palmoplantar; keratoderma; hyperkeratotic; autosomal dominant.

Unmasking Axial Spondyloarthritis: An Atypical Peripheral Onset in a Middle-Aged Runner

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Introduction:

Axial spondyloarthritis (axSpA) is a chronic inflammatory disease primarily affecting the sacroiliac joints and spine. Though inflammatory back pain is typical, atypical peripheral symptoms—arthritis, enthesitis, and dactylitis—can delay diagnosis. Distinguishing inflammatory from mechanical musculoskeletal pain and applying the Assessment of Spondyloarthritis International Society (ASAS) classification criteria are key to early diagnosis and proper management.

Case Description:
A 43-year-old male with no prior medical history, avid jogger, presented with acute right knee arthritis, characterized by pain, swelling, and functional impairment. Ultrasound revealed significant joint effusion and Doppler grade II synovial proliferation. Laboratory testing showed elevated inflammatory markers (VSH 70 mm/h and CRP 6.8 mg/L), Synovial fluid analysis ruled out infection or crystals. Initial imaging (X-ray) was unremarkable, and symptoms persisted despite NSAID therapy.

One month later, the patient developed achilles enthesitis, initially attributed to running. However, the persistence of pain led to further rheumatologic evaluation. Additional inflammatory signs appeared, including dactylitis and plantar tendinopathy. MRI revealed active and chronic bilateral sacroiliitis. Radiographic sacroiliitis (stage II/III) was confirmed, and HLA-B27 testing was positive.

Per ASAS classification, the diagnosis was based on imaging-confirmed sacroiliitis plus SpA features: arthritis, enthesitis, dactylitis, inflammatory back pain, elevated CRP, and HLA-B27 positivity. The patient's low back pain had been present intermittently for four years but was previously misattributed to lumbar discopathy.

Initial treatment with sulfasalazine and NSAIDs was continued for 12 weeks, but clinical response was insufficient. Persistent active disease and peripheral features prompted initiation of biologic therapy with Cosentyx. Rheumatoid arthritis and psoriatic arthritis were excluded by negative autoantibodies, no skin/nail lesions, and imaging findings.

The patient improved rapidly on Cosentyx. In 2021, a brief Achilles enthesitis flare resolved after increasing the dose to 300 mg/month. As of the latest follow-up, he reported no pain, swelling, or NSAID use. Inflammatory markers normalized, and biologic therapy is ongoing with full disease control.

Conclusion:

This case highlights the challenge of diagnosing axSpA with peripheral onset. Accurate differentiation between inflammatory and mechanical pain, timely use of imaging, ASAS criteria, and early biologic escalation are essential. Cosentyx proved especially effective in treating enthesitis-dominant disease.

Keywords: axial apondyloarthritis, atypical presentation, runner, peripheral arthritis, achilles enthesitis, dactylitis, ASAS, plantar tendinopathy, sacroiliitis, HLA-B27, NSAIDs, biologic therapy.

A Case of Developmental Delay: Exploring Male Susceptibility

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Introduction:

The ARFGEF1 gene, located on the 8th chromosome, encodes a GTPase responsible for intracellular mechanisms involved in neurodevelopment. Recent studies have implicated heterozygous loss-of-function variants in *ARFGEF1* in neurodevelopmental disorders characterized by developmental delay, intellectual disability, and epilepsy, exhibiting variable expressivity and incomplete penetrance. Notably, emerging evidence suggests a higher prevalence and severity of these disorders in male patients, highlighting potential sex-linked susceptibility factors.

Case Report:

A 6-month-old male infant is hospitalised for the evaluation of a delay in his psychomotor development. Neurological and psychological assessments revealed mild intellectual disability, developmental coordination disorder, and expressive language disorder. Physical examination identified craniofacial dysmorphism, deafness, and hyperopic astigmatism. Genetic evaluation through whole exome sequencing identified a heterozygous mutation in the *ARFGEF1* gene (c.2917G>A). Parental Sanger sequencing revealed that the mother carried the same mutation but exhibited no notable clinical manifestations.

Discussions:

Although the mutations of the ARFGEF1 gene present as clinically heterogeneous, this patient has similarities to others who are affected by the

same disorder. This includes being born following an uneventful pregnancy with a physiological evolution and receiving a normal Apgar score at birth, in addition to having characteristic craniofacial features such as small, low-set ears and a high forehead. This case aligns with previous reports of *ARFGEF1*-related neurodevelopmental disorders, highlighting phenotypic variability and sex-specific effects. The maternal carrier's lack of symptoms suggests incomplete penetrance, while registry data indicate a male predominance, warranting further investigation into potential genetic modifiers.

Conclusions:

This case highlights the impact of ARFGEF1 mutations on neurodevelopment and emphasizes the need for comprehensive genetic, epidemiological, and clinical studies to elucidate the full phenotypic spectrum and underlying mechanisms of variable expressivity and incomplete penetrance. Integrating data from international registries and conducting detailed evaluations of asymptomatic or mildly affected carriers, particularly females, are crucial for refining diagnostic guidelines and improving early intervention strategies.

Keywords: neurodevelopmental delay; mutation; whole exome sequencing.

The Butterfly Effect: Managing the Complications of the "Butterfly Skin" Condition

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Introduction:

Dystrophic Epidermolysis Bullosa (DEB) is a rare genetic disorder caused by a mutation in the COL7A1 gene, which is responsible for the synthesis of the type VII Collagen Molecule, thus playing a vital role in the formation of anchoring filaments. Dystrophic Epidermolysis Bullosa leads to extensive blistering, which determines scarring. Beside the skin, the disease also affects the mucosal membranes, such as those in the digestive system. Complications may occur, such as esophageal stenosis, leading to difficulties in feeding.

Managing a patient with Dystrophic Epidermolysis Bullosa is challenging, given the multidisciplinary care that is required: dermatological care, gastroeneterological supervision, proper nutrition and others.

Case Report:

A 25 year old female patient presents to the hospital complaining of complete dysphagia for solid foods and partial dysphagia for liquids for four months. The patient has been previously diagnosed with Dystrophic Epidermolysis Bullosa

and esophageal stenosis, as a complication of the genetic disease. Consequently, she has become cachectic and anemic.

To assess the stenosis, a barium swallow was initially performed, which revealed narrowing of the esophagus, with contrast medium passing to the gastric level. Subsequently, an upper gastrointestinal endoscopy (examination with a nasogastroscope) was carried out, and esophageal dilation was performed first with a 5mm bougie, followed by a 7mm bougie. The nasogastroscope was then passed to the stomach and the duodenum, where no pathological changes were detected. The persistence of symptoms signals the need for a gastrostomy, but during the next upper gastrointestinal endoscopy, the previously dilated stenosis was found to be currently non-passable endoscopically. Therefore, dilation was repeated with a 7mm bougie, and then, under analgosedation, to ensure a proper nutrition, a percutaneous gastrostomy tube of 20Fr was successfully placed without any complications following the procedure.

Beside the treatment, the patient needs to mentally adapt to the changes in routine following the placement of the gastrostomy tube and also to be properly educated on all the implications of her disease.

Discussion:

Dystrophic Epidermolysis Bullosa has multiple transmission patterns, which also determine the severity of the symptoms. Autosomal Dominant transmission is associated with less severe symptoms and a positive prognosis. The Autosomal Recessive mutation causes two syndromes: Intermediate Recessive DEB and Generalized Recessive DEB, the latter being characterized by the most severe symptoms, risks, and associated complications.

Conclusions:

Although Dystrophic Epidermolysis Bullosa is a condition that does not currently have a specific treatment, symptomatic treatment aimed at alleviating or removing complications, including digestive ones, significantly improves the quality of life for patients.

Keywords: COL7A1; Epidermolysis Bullosa Dystrophica; Esophagus; Stenosis; Gastrostomy.

A Rare Case of Cytomegalovirus Reactivation

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Introduction:
Cytomegalovirus (CMV) is a common virus in the Herpesviridae family that infects most people throughout their lives, usually without causing significant symptoms. The virus can remain latent in the body after initial infection and can reactivate under certain conditions, such as immunosuppression.

Case Report:
Patient CM, gender M, 63 years old, non-smoker, diabetic, known in the past with psoriasis, prostate adenoma, bilateral coxarthrosis, is urgently admitted to the neurology department for the following: gait disorders, left hemibody motor deficit and left hemiparesis, astheno-fatigue, loss of appetite, psychomotor agitation.
The patient is noncompliant and does not cooperate, refusing to perform neurological tests. The patient has also repeatedly refused previous hospitalizations.
From the anamnesis, we note that in February 2024 , the patient suffered what he describes as "a strong cold", for which he refused to see a doctor, was self-treated and "went away on its own". Following this event, the patient gradually loses strength in his lower limbs and suffers two episodes of falling from the same height, without losing consciousness.

Discussions:
The patient is uncooperative and refuses a lumbar puncture and an ophthalmological examination. In addition, he refuses to perform multiple neurological tests.
Multiple investigations were performed to establish the differential diagnosis.

CT and MRI exclude an acute or chronic process and EMG and ANMG exclude epilepsy. IgG and IgM were negative for Epstein Barr. The only indication was the one-month titration of IgG for CMV which showed an increase in dynamics. Later, the patient stated the status of a "chronic drinker" which was initially denied repeatedly. Low immune status and alcohol consumption are factors for CMV reactivation. Another important key aspect was the "cold" described by the patient. Viral infections pass without treatment in the acute phase, which is why the patient reports that "it went away on its own".
As a therapeutic procedure, the patient followed: intravenous immunoglobulins, vitamin B therapy, medical gymnastics, psychological support.
As a result of this event, the patient's progress was extremely slow. Currently, the patient is able to mobilize and take care of himself.

Conclusions:

In some cases, CMV can cause neurological manifestation including tetraparesis.

Keywords : cytomegalovirus, tetraparesis; meningitis; cold.

The Rare Intersection Between Rheumatology and Dermatology – SAPHO Syndrome

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Introduction:

SAPHO syndrome (Synovitis, Acne, Pustulosis, Hyperostosis, and Osteitis) is a rare autoinflammatory disorder affecting approximately 1 in 10,000 individuals, predominantly females aged 30–50. Its etiology is multifactorial, involving genetic susceptibility, immune dysregulation, and environmental triggers. Cutibacterium acnes has been implicated in disease pathogenesis, particularly in osteoarticular involvement. Due to its heterogeneous presentation, SAPHO syndrome remains a diagnostic and therapeutic challenge.

Case Report:

A 35-year-old male exhibits acne conglobata and moderate-intensity lumbar pain. Reflecting the atypical nature of the patient's clinical presentation, it is noteworthy that the patient had multiple presentations to the medical institutions. Retrospectively, in 2007 he reported intermittent lower back pain only responsive to analgesics. In 2010 his symptoms progressed to severe arthralgia, joint swelling and pain in the sternoclavicular joint, lumbar pain, and severe acne.
Rheumatologic evaluation revealed hyperostosis of the right sternoclavicular joint, sacroiliitis, severe acne, and fever. Based on clinical and imaging findings, diagnosis of SAPHO syndrome was established and a treatment with Lornoxicamum was prescribed 2 times a day and antibiotics with

Doxycyclinum for one month, which led to slow but favorable improvement. Afterwards he took Isotretinoinum and Methotrexatum for 3 months along with Betamethasonum and Gentamicinum ointment applied twice daily, but his amelioration was almost unnoticeable. For the next 3 months he was administered Etanerceptum 25 mg twice a week and his joint pain almost disappeared, but the cutaneous lesions had no improvement. However, due to the high cost of the treatment, the patient could only follow Etanerceptum therapy for 12 weeks.

Discussions:

One aspect that characterizes SAPHO syndrome is the lack of standardized treatment guidelines due to the rarity and variability of the disease. Some clinical studies showed the efficacy of TNF-alpha inhibitors in refractory SAPHO syndrome on account of inducing remission in most cases. The condition is characterized by elevated TNF-alpha levels, and biologic agents such as infliximab can induce remission. Thus, TNF-alpha inhibitors represent a promising therapeutic option, particularly in refractory cases. Their efficacy in SAPHO syndrome and other inflammatory conditions highlights their potential role in disease modulation, warranting further investigation.

Alternative treatments include clindamycin, cephalexin, and amoxicillin/clavulanic acid; however, their clinical benefits are comparatively lower.

Advanced Ovarian Cancer Therapeutic Challenges and Clinical Insights

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Introduction:

Ovarian cancer is one of the most lethal gynecological malignancies, primarily due to its nonspecific symptoms and late-stage diagnosis. Standard treatment involves a combination of surgery, chemotherapy, and targeted therapies, yet high recurrence rates and resistance to treatment remain major challenges. This case highlights the clinical course of a patient with advanced high-grade serous ovarian carcinoma, emphasizing the therapeutic strategies employed and their outcomes.

Methodology:

We present the case of a 51-year-old female with a family history of ovarian cancer (mother diagnosed in 2004), diagnosed in 2019 with stage IIIc high-grade serous ovarian carcinoma. Initial workup included clinical assessment, tumor markers (CA125=1138 U/mL), and imaging (CT, PET-CT), confirming peritoneal carcinomatosis. The therapeutic approach comprised neoadjuvant chemotherapy with Carboplatin, Paclitaxel, and Bevacizumab, followed by interval debulking surgery with hyperthermic intraperitoneal chemotherapy (HIPEC) using Cisplatin. Postoperatively, the patient received adjuvant chemotherapy and maintenance therapy with PARP inhibitors and immunotherapy.

Results:

Neoadjuvant chemotherapy led to significant tumor regression, allowing optimal cytoreduction with no visible residual disease. Despite an initial response, the patient experienced multiple recurrences, requiring subsequent lines of systemic treatment, including combination chemotherapy with Carboplatin, Gemcitabine, and later Paclitaxel. The disease course was complicated by hematologic toxicity, progressive peritoneal carcinomatosis, and hepatic involvement. In 2022, the patient developed obstructive jaundice due to perihepatic tumor extension, necessitating biliary stent placement. Despite ongoing therapy, disease progression continued, culminating in sepsis and multiorgan failure.

Conclusions:

This case underscores the complexity of treating advanced ovarian cancer, highlighting the benefits and limitations of multimodal therapy. While neoadjuvant chemotherapy and HIPEC contributed to initial disease control, treatment resistance and recurrence ultimately dictated the patient's prognosis. The findings emphasize the need for improved therapeutic strategies, including personalized treatment approaches and novel targeted therapies, to enhance long-term outcomes.

Keywords: high-grade serous ovarian carcinoma; neoadjuvant chemotherapy; immunotherapy; cytoreductive surgery.

A Multidisciplinary Approach to Stage IIB Cervical Cancer: A Case Report

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Introduction:

Cervical cancer remains a leading cause of cancer-related morbidity and mortality worldwide, despite being preventable through effective screening and HPV vaccination. Romania faces higher incidence and mortality rates compared to other European countries, emphasizing the need for early detection and comprehensive treatment approaches.

Methodology:

I present the case of a 36-year-old female diagnosed with stage IIB cervical squamous cell carcinoma. The patient initially reported abnormal vaginal bleeding, prompting a gynecological evaluation. Clinical examination revealed a hypertrophic cervix with a bleeding lesion. Biopsy confirmed moderately to poorly differentiated squamous cell carcinoma (G2/G3). Imaging studies identified a heterogeneous cervical mass (56.6/27 mm) with suspicious pelvic lymph nodes.

A multidisciplinary team opted for a combined therapeutic approach. Treatment included external beam radiotherapy (45 Gy) with concurrent radiosensitizing chemotherapy, followed by intracavitary brachytherapy (21 Gy). Surgical intervention through radical hysterectomy with bilateral adnexectomy and lymphadenectomy was performed to achieve optimal local control.

Results:

Post-treatment imaging revealed fibrotic changes without evidence of residual tumor. Pathological analysis confirmed a complete response (ypT0 ypN0), with no detectable residual tumor or lymph node involvement. Follow-up evaluations, including MRI in September 2024, showed no signs of recurrence, confirming the effectiveness of the combined treatment strategy.

Conclusions:

This case highlights the importance of a multidisciplinary approach in managing advanced cervical cancer. Despite challenges in Romania's healthcare infrastructure, the complete pathological response demonstrates the potential of combining chemoradiotherapy with surgery for improved patient outcomes. Regular follow-up is crucial to detect any recurrence early and ensure long-term disease control.

Parasites Meet Stones: A Case Report of Hydatid Cyst of the Gallbladder with Acute Cholangitis

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Introduction:

Hydatid cyst of the gallbladder is an extremely rare manifestation of Echinococcus granulosus infection, often posing diagnostic challenges due to its nonspecific clinical presentation. This case report highlights the intricate interplay between biliary pathology and parasitic infection, complicated by acute cholangitis.

Case Description:

We present the case of a 57-year-old female patient with a medical history of cholelithiasis and a right adnexectomy, who was admitted to our internal medicine department for right upper quadrant abdominal pain, nausea, vomiting, and jaundice. During the first admission in December 2024, clinical evaluation revealed jaundice, right upper quadrant tenderness, as well as biochemical evidence of hepatocellular injury, cholestasis, hyperbilirubinemia (predominantly direct), and inflammation. Imaging studies, including abdominal ultrasound and contrast-enhanced magnetic resonance cholangiopancreatography (MRCP), identified a hydatid cyst within the gallbladder, with associated acute cholangitis (Tokyo I criteria), biliary pancreatitis, and hepatic steatosis. Serologic tests for Echinococcus spp. were positive. The patient received intravenous antibiotics, hepatoprotective agents, and symptomatic treatment, showing clinical and paraclinical improvement. In January 2025, the patient was readmitted for scheduled surgical management

following confirmation of the hydatid cyst. Laparoscopic retrograde cholecystectomy with pericholecystic adhesiolysis and subhepatic drainage was performed, revealing a 1 cm hydatid cyst at the fundus of the gallbladder, without hepatic or serosal invasion. Histological examination confirmed chronic calculous cholecystitis associated with a hydatid cyst, showing biliary epithelial lining and acellular membranes typical of Echinococcus spp. Postoperative evolution was favorable under antibiotic, analgesic, anti-inflammatory medications, and anticoagulant prophylaxis, with early resumption of bowel movements, minimal drainage, and proper wound healing. The patient was discharged in good general condition, with dietary recommendations, wound care instructions, and outpatient follow-up.

Discussion:

This case underscores the importance of considering hydatid disease in patients with atypical biliary pathology, especially in endemic regions. The coexistence of acute cholangitis complicated the diagnostic process, emphasizing the need for timely imaging and serological testing. Effective management relies on early diagnosis, tailored therapeutic strategies, and a multidisciplinary approach. Surgical intervention plays a crucial role in preventing severe complications such as rupture or biliary obstruction, ultimately improving patient outcomes.

Keywords: hydatid cyst; gallbladder; acute cholangitis; laparoscopic cholecystectomy; Echinococcus granulosus.

Inflammation or Malignancy? A Case Report Unraveling the Diagostic Puzzle of Pancreatic Disease

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Introduction:

Differentiating pancreatic cancer from chronic pseudotumoral pancreatitis is a major challenge. This distinction is crucial for selecting the appropriate surgical approach. Ultimately, it also impacts the patient's prognosis.

Case Presentation:

We present the case of a 41-year-old male with a known history of chronic alcohol use, who had engaged in heavy drinking for the past two years until his most recent medical examination. He also has a history of chronic pancreatitis and has experienced two episodes of acute pancreatitis due to alcohol consumption within a five-month time frame. On his most recent examination, he presents with fatigue, abdominal pain, significant weight loss (Body Mass Index [BMI] = 17.77 kg/m²), diarrhea with steatorrhea, and newly diagnosed type 2 diabetes.

On one hand, Magnetic Resonance Cholangiopancreatography (MRCP) revealed the "double duct" sign— simultaneous dilation of the common bile duct and pancreatic duct—suggestive of pancreatic cancer. The positive predictive value (PPV) of the double duct sign for malignancy ranges between 50-85%. On the other hand, Contrast Enhanced Computed Tomography

(CECT) findings were more indicative of chronic pancreatitis, showing an enlarged, inhomogeneous pancreas and compression of the duodenum. The Carbohydrate Antigen 19-9 (CA 19-9) level was within the normal range.

Given the potential risk of an underlying pancreatic malignancy progressing to an unresectable stage, the surgical team opted for Frey's procedure as the definitive management approach. The pancreatic duct was widely opened up to the head of the pancreas, where large, deep biopsies were taken. The pathological examination of the intraoperative biopsy excluded the presence of malignancy. The optical microscopy image showed intense fibrosis, chronic periductal inflammatory infiltrate, and glandular atrophy, which are highly suggestive of chronic pancreatitis.

Discussions:

MRCP has limitations - it cannot detect pancreatic calcifications, a hallmark feature of chronic pancreatitis. In this case, the "double duct" sign was ultimately irrelevant, with the definitive diagnosis made only through laparotomy and biopsy. Postoperatively, the patient's condition significantly improved.

Conclusion:

This case highlights the importance of integrating multiple diagnostic methods and considering surgical exploration when imaging results are inconclusive, particularly in young patients with pancreatic head masses.

Keywords: pancreatic cancer; chronic pancreatitis; differential diagnosis.

Krukenberg Tumors with Hepatic Metastases and Peritoneal Carcinomatosis: A Clinical Case of Advanced Colorectal Cancer

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Introduction:

The Krukenberg tumor (KT) is a rare ovarian carcinoma and consists of cells with a signet ring shape filled with mucin, accounting for 1-2% of all ovarian tumors. These tumors are almost always metastatic and affect the ovaries bilaterally, giving them an asymmetric appearance with a lobulated surface and increased volume. The stomach is the most common primary site, closely followed by the colon.

Case Report:

We report the case of a 49-year-old woman, known with large cystic ovarian tumors, who arrived for the management of sclero-tegumentary jaundice and ascites. Following an ultrasound, multiple hepatic metastases were detected, which have led to the development of mixed jaundice, worsening to the stage of liver failure. A CT scan revealed a tumor formation in the middle third of the descending colon, causing stenosis and extending into the mesocolon. Voluminous secondary hepatic lesions, peritoneal carcinomatosis, and Krukenberg tumors were also discovered. After performing a liver biopsy, the morphological appearance was consistent with adenocarcinoma, with an immunohistochemical profile suggestive of a colorectal origin. Following immunostaining for cytokeratin 7 and cytokeratin 20 (CK 7 and CK 20), the tumor cells were positive for CK 20 and negative for CK 7.

Discussions:

The complexity of the presented case raises doubts regarding its management methods. It is well known that the prognosis of KT is generally poor, and patients with gastrointestinal-origin KT survive an average of 7-17 months with palliative treatment. The histopathological diagnosis indicates that palliative systemic oncological therapy would be recommended, but due to liver failure, it cannot be administered. Because of the obstruction of the bile ducts, antibiotic and glucocorticoid treatment is initiated. However, cytoreductive surgery has proven to be a significant prognostic factor, improving the patient's life expectancy. Complete cytoreduction reduced the residual tumor burden to an acceptable level when combined with the perioperative use of effective chemotherapeutic agents and new targeted drugs.

Keywords: Krukenberg tumor; complete cytoreduction; palliative treatment; hepatic metastases.

Lost in Extremes: Bipolar I Disorder, Psychotic Features and Alcohol Use in a Young Patient

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Introduction:

Bipolar I Disorder is a severe psychiatric condition characterized by manic episodes that can include psychotic features. This disorder significantly impacts social and occupational functioning. This case report presents the clinical course of a 26-year-old male, Z.C., who experienced psychiatric decompensation leading to his second hospitalization. The case explores the interplay between genetic predisposition, alcohol use, and psychosocial stressors in the exacerbation of his symptoms.

Methodology:

The patient's psychiatric evaluation included clinical observation, structured psychiatric interviews, and medical investigations to exclude organic causes. Diagnostic criteria from the DSM-5 were applied, confirming a diagnosis of Bipolar I Disorder, current manic episode with mood-congruent psychotic features. Treatment involved a combination of mood stabilizers (Carbamazepine), antipsychotics (Quetiapine), and sedatives for agitation and insomnia. The patient's response to treatment and symptom evolution were closely analyzed during hospitalization.

Results:

The patient exhibited a range of manic symptoms, including excessive energy, decreased need for sleep, grandiose delusions, disorganized behavior, verbal and physical aggression, and impaired judgment. Initial psychiatric assessment revealed elevated mood, psychomotor agitation, distractibility, and irritability. Over 72 hours, symptom progression included increased sociability, hyperactivity, and persistent grandiose ideas. Medical and psychological assessments ruled out other psychiatric and medical conditions, reinforcing the bipolar diagnosis. Pharmacological intervention led to a gradual reduction in psychotic symptoms and mood stabilization, though the patient remained at risk for relapse due to unresolved psychosocial stressors and substance use.

Conclusions:

This case highlights the complexities of Bipolar I Disorder, particularly in the presence of alcohol use and family psychiatric history. Effective management requires a combination of pharmacological treatment and psychosocial interventions. The patient's prognosis remains moderate due to persistent risk factors, including substance use and lack of family support. Long-term strategies, including psychotherapy and lifestyle interventions, are crucial to prevent further episodes and improve overall functioning.

Acknowledgements:

We extend our gratitude to the psychiatric team for their dedicated care and thorough evaluation of the patient. We also appreciate the support of the medical staff in assisting with the diagnostic process and treatment implementation.

MALDI-TOF and Sepsityper Demonstrate Rapid Identification Methods in Pediatric Septic Positive Hemoculture

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Introduction:

Many major bacteria, if left untreated, can cause poor prognoses that endanger the patient's life. The purpose of our investigation was to highlight the integral role rapid biomedical identification tests like MALDI-TOF and Sepsityper have in mediating the progression of sepsis in severe infection.

Case Report:

The patient was a 21-month-old male with a Pseudomonas Aeruginosa infection superimposed on Acute Lymphoblastic Leukemia (ALL). Complete blood count was evaluated upon admission, showing thrombocytopenia, leukocytopenia, and a moderately raised CRP of 16.62mg/L. The patient was started on Piperacillin/Tazobactam. CRP levels were continuously monitored, rising from 134.63mg/L to 306.33mg/L within 2-3 days. The hemoculture involved inoculation of the bacteria into sample bottles, then monitoring microbial growth via BACTEC, which takes approximately 24-48 hours. On positive blood cultures, the Sepsityper Kit can centrifugate the sample and separate the bacterial cells from the red blood cells, which takes about 35-45 minutes. Purified bacterial cells are plated and overlaid with a matrix solution. The target plate is placed into MALDI-TOF where it is ionized, creating a time-of-flight curve, measured to generate a mass spectrum. This mass spectrum is compared in a database to identify the bacterial strain and resistance, typically taking less than an hour. The rapid Sepsityper protocol and MALDI-TOF combination allowed for proper sample and resistance

identification within 2 hours. The patient's medication was changed to Ceftolozane/Tazobactam and CRP levels fell to 271.35mg/L and continued to decrease.

Discussion:

Conventional blood culture identification methods need 24-72 hours, plus another 24-48 hours necessary for generating colonies which can be plated and identified by mass spectrometry. Newer centrifugation techniques like MALDI-TOF and Sepsityper are more rapid. This carries significant implications for septic interventions, like in our patient's case. There is a definite time advantage in using MALDI-TOF and Sepsityper Kit which allow for quick interventions and lifesaving medication changes in patients with risk of end organ damage, wherein timing is essential. MALDI-TOF and Sepsityper show high accuracy and might be considered as strong alternatives in biomedical diagnostics.

Keywords: MALDI-TOF, sepsityper, sepsis.

Clinical Reviews/ Meta-Analyses

Iron-Deficiency Anemia as initial presentation of AFAP-Attenuated Familial Adenomatous Polyposis– A Case Report

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Introduction:

Iron-deficiency anemia is the most common type of anemia. Anemia affects the health-related quality of life and impacts prognosis and outcome of therapy.

Familial adenomatous polyposis (FAP) is an autosomal dominant polyposis syndrome characterized by mutations in the APC gene, a tumor suppressor gene located on chromosome 5.

Case Report:

We present the case of a 67-year-old man who formerly came for a routine consultation which revealed an iron-deficiency anemia. On admission, the physical examination was unremarkable. On further investigations, inferior digestive endoscopy revealed 25 colonic polyps, some of which were excised. The patient was diagnosed with attenuated familial adenomatous polyposis (AFAP) which was initially attributed as the main cause for anemia. Histopathological examination identified tubular adenomas with low-grade dysplasia and a tubulovillous focal adenoma with high-grade dysplasia.

The patient presented one month later for endoscopic excision of remaining polyps. He accused persistent asthenia and fatigue. Laboratory analysis identified a microcytic hypochromic anemia, high levels of ferritin,

hyposideremia, cobalamin deficiency, reactive thrombocytosis and inflammatory syndrome. Abdominal echography revealed no abnormalities. The remaining colonic polyps were excised. As the patient presented a whopping cough the day before discharge, a radiographic examination of the lungs was ordered. It revealed an increased opacity in the left inferior lobe of 9cm. Computed tomography with contrast disclosed a left juxta hilar pulmonary tumor with modified ventilation and a small left pleural collection. He was transferred to the Oncology department for further management. A subsequent biopsy revealed a non-small cell bronchogenic carcinoma.

Conclusions:

Pulmonary tumor in the context of AFAP is a rare immunological feature emphasizing the importance of maintaining a wide approach in investigating cases with iron-deficiency anemia.

Keywords: familial adenomatous polyposis; iron-deficiency anemia.

About the Pathology and How We Become One With It: Psoriasis

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Background:

Psoriasis is a long-lasting inflammatory skin disorder marked by distinct red, scaly patches. It can be divided into different forms. Through a multidisciplinary approach, early diagnosis, and personalized treatments, we can improve the quality of life for those affected.

Objectives:

Psoriasis should not be seen merely as a disease but as a complex condition that can also affect the patient's mental well-being and social integration. The most important key points, including: current information about the pathology and the individuals predisposed to this condition, the causes leading to its development, the symptoms based on the patient's skin type, and, last but not least, the treatment and what we can do to prevent and better understand the pathology.

Materials and Methods:

Searching for the latest and most up-to-date information in the field of dermatology from PubMed; "Pathogenesis and clinical features of psoriasis"(2007); "Pathogenesis and clinical features of psoriasis"(2007); "The impact of skin of color on the clinical appearance of psoriasis. Dermatologic Clinics"(2017); "Journal of the American Academy of Dermatology"(2018);

"Psoriasis: Pathogenesis and clinical manifestations. In Dermatology" (4th ed., 2021) database and synthesizing the key points about pathology.

Results:

Psoriasis impacts 2–4% of both men and women. It can begin at any age, including in childhood, with the highest onset occurring between 15–25 years and 50–60 years. The condition typically lasts a lifetime, with variations in severity and spread. It is most prevalent among Caucasians, though individuals of any ethnicity can be affected. Around one-third of those with psoriasis have relatives who also have the condition.

Conclusions:

Psoriasis is not just a dermatological condition, but a complex pathology with a significant impact on the physical, psychological, and social health of patients. Recent research and new therapies bring hope for more effective disease management, highlighting the importance of collaboration between specialists for a better future in psoriasis management.

Keywords: skin disease; psychological impact; therapeutic strategies.

Efficacy of Combined Microneedling and Chemical Peeling Versus Monotherapy in Acne Scar Management: A Narrative Systematic Review

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Introduction:

Acne is a skin condition that can lead to scarring and pigmentation. Microneedling is a minimally invasive procedure that uses fine needles to puncture the epidermis, while a chemical peel implies using a topical agent to induce keratosis & desquamation. This systematic review aims to compare the efficacy of treating acne scars with the two techniques.

Materials and Methods:

A comprehensive search was conducted across PubMed, Cochrane Library, and Embase for articles published in the last 7 years using the terms "micro-needling", "chemical peeling", and "acne scars." The inclusion criteria were articles discussing scar improvement (measured through qualitative grading systems), hyperpigmentation, collagen stimulation, and patient-reported outcomes. The exclusion criteria were other skin affections, such as surgical scars, stretch marks, or anti-aging procedures. The risk of bias was not assessed, and PRISMA guidelines were used for data synthesis.

Results:

From 12 initially screened studies, 4 were included in the final narrative review. Multiple studies reported greater clinical improvements when microneedling and chemical peeling were combined, compared to either

therapy alone. Notably, Basma et al. (2019) observed statistically significant improvements in scar depth and texture in patients receiving both treatments ($p = 0.002$). Saadawi et al. and Fatima et al. also noted better patient satisfaction and aesthetic outcomes with combination therapy. However, some studies highlighted variations in treatment protocols, types of chemical agents used, and subjective reporting scales, making direct comparison challenging.

Conclusions:

Both microneedling and chemical peels are effective treatment options for acne scarring. Combination therapy often yields superior outcomes but lacks standardization in terms of agents, depth, and session frequency. Clinically, this suggests the need for individualized treatment protocols, further supported by randomized controlled trials to establish clear guidelines and optimize patient results.

Keywords: microneedling; chemical peel; acne scars; hyperpigmentation; combination therapy; clinical outcomes.

COPD and the Respiratory Microbiome: Implications for Disease Progression and Therapy

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Background:

Chronic Obstructive Pulmonary Disease (COPD) is a progressive lung condition marked by constant airflow limitation, chronic inflammation, and recurrent infections. These manifestations often exacerbate worsening symptoms and declining lung function. The respiratory microbiome, a complex ecosystem of microorganisms within the lungs, is vital in maintaining pulmonary health. In COPD, this microbiome undergoes significant alterations (dysbiosis), which contribute to the pathogenesis of the disease and increased susceptibility to infections.

Approaches and Pathways:

The healthy lung microbiome is diverse and balanced, supporting immune regulation and pathogen defense. However, in COPD, microbial diversity is reduced, allowing harmful bacteria such as Haemophilus influenzae, Pseudomonas aeruginosa, and Moraxella catarrhalis to proliferate. This imbalance contributes to excessive inflammation by increasing pro-inflammatory cytokines, resulting in a cycle of mucus overproduction, impaired mucociliary clearance, and recurrent infections, which accelerate lung tissue damage and disease progression.

Results:

Using advanced techniques like 16S rRNA sequencing, researchers have identified significant differences in microbiome composition between stable COPD and exacerbation states. During exacerbations, pathogenic bacteria dominate, while beneficial commensal species like Prevotella and Veillonella are reduced. These results suggest that an imbalance in the microbiome is linked to the disease severity and inflammation, highlighting its potential as a biomarker for early detection and monitoring of exacerbations.

Innovative Therapeutic Strategies:

Using microbiome-targeted therapies, we can improve COPD management. Probiotics and prebiotics aim to renew microbial balance by introducing beneficial bacteria and promoting their growth, while precision antimicrobial therapies selectively target pathogenic bacteria while preserving microbiome diversity. Microbiome transplantation and lifestyle interventions are also strategies to restore the lung microbiome and improve disease outcomes.

Conclusions:

Changes in the microbiome have a crucial impact in COPD, amplifying inflammation, immune dysfunction, and frequent flare-ups. Understanding these changes provides opportunities to develop progressive diagnostic solutions and treatment options. By targeting dysbiosis, doctors can improve infection management, delay disease progression, and enhance the quality of life for COPD patients.

Keywords: COPD; microbiome; dysbiosis; inflammation; therapeutic strategies.

Melanoma – A Visible Yet Deceitful Disease

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Introduction:

Melanoma is a skin cancer caused by a malignancy of melanocytes, the cells that give our skin it's characteristic color. On light skin, melanoma mainly develops on areas that are regularly exposed to sunlight – such as your arms, legs, back, chest or head. It typically looks like an irregularly shaped mole or birthmark. On dark skin, melanoma more commonly develops on parts of the body like the soles of your feet, between your toes, under your nails or on the palms of your hands. It may also grow on the eyes, mouth or genitals.

Objectives:

In this study we aimed to address the problem of a disease that might seem harmless at first sight, to inform the general public about the risks of not getting the treatment necessary to resolve it, and the available treatment possibilities.

Materials and Methods:

We've concluded a series of habits that can significantly reduce the appearance of melanoma such as reduced sun exposure, wearing sunscreen and avoiding artificial tan. Doctors can identify and diagnose a melanoma by using a dermatoscope, which is an instrument with a high level of magnification which allow for a closer examination of the lesion. If the melanoma is diagnosed however, in early stages it can be removed surgically and then inspected, if the melanoma has already spread elsewhere in the body

then treatments such as medication (immunotherapy) or radiation will be made.

Results:

Our statistics show data gathered over the span of nine years of research revealing an increase in incidence of melanoma, lower age of diagnosis and an increased rate of survival to 5 years of approximately 98% for localized melanoma.

Conclusions:

Early detection through regular skin checks and monitoring changes in moles is crucial for effective treatment. Treatment options may vary, ranging from surgery to more advanced therapies such as immunotherapy and targeted therapy, depending on the stage of the cancer.

Keywords: melanoma; early stage; sun exposure; surgery.

Beyond Topical Steroids: The Effectiveness of Biologics in Plaque Psoriasis Treatment – A Systematic Review

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Introduction:

Plaque psoriasis is an immune cell-mediated inflammatory skin disease. Recent studies identified interleukins (IL) as key drivers of psoriasis pathogenesis, leading to the development and clinical implementation of targeted biologic therapies with IL inhibitors. Aim of study is to compare effectiveness in long-term usage of biologics versus topical steroids for moderate to severe cases of psoriasis.

Materials and Methods:

For this systematic review, we searched PubMed, Cochrane Library, and Google Scholar for articles published in the last seven years using the terms ”plaque psoriasis”, ”IL inhibitors” and ”topical steroids”. Studies included assessed therapy effectiveness by measuring the Psoriasis Area and Severity Index (PASI) score and Investigator’s Global Assessment (IGA) score for clinical signs of psoriasis. Exclusion criteria consisted of articles comparing other treatments such as methotrexate, cyclosporine, vitamin D analogues or phototherapy. Bias risk was not evaluated, and PRISMA guidelines were used for data synthesis.

Results:

A total of 6158 adult patients were identified in 6 clinical trials out of 12 articles initially selected by abstract. Reich et al. (2021) achieved PASI 90

response and IGA scores of 0 or 1 on 85.5% of bimekizumab and 74.3% of secukinumab patients, at week 16. Stein et al. (2018) achieved 63.5% reduction in IGA score by week 8 ($p<0.001$), sustained 4 weeks post-treatment, for 212 patients, with halobetasol propionate 0.01% and tazarotene 0.045% topical steroids lotion. More recent studies suggest that biologics and topical steroids can be used in combination, therefore enhancing efficacy and minimizing side effects. In a clinical trial by Bagel et al. (2023), IGA and PASI scores improved from week 16 in 25 patients with tildrakizumab plus adjunctive halcinonide 0.1% versus tildrakizumab monotherapy.

Conclusions:

Although topical therapies remain the mainstay for treating mild psoriasis, biologics were more effective in moderate-to-severe cases. Combinations of the two may serve as the future treatment-scheme, and further research is needed to improve patients' quality of life.

Keywords: plaque psoriasis; interleukin inhibitors; topical steroids.

Clinical Original Studies

Predicting Tomorrow's Heart, Today: H2FPEF, HFA-PEFF Scores To Predict Heart Failure With Preserved Ejection Fraction

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Background:

The H2FPEF and HFA-PEFF scores are used for categorising patients into low, intermediate, and high likelihood of having heart failure with preserved ejection fraction (HFpEF). The scores assist clinicians in making informed decisions about patient management, including the need for further testing and potential treatment strategies.

Materials and methods:

We enrolled 100 patients (36% male, 64% female) with mean age 71.3±10.81 years with cardiovascular risk factors (age, gender, DM, hypertension, obesity, dyslipidemia) in whom the diagnosis of HFpEF according to the current ESC guidelines was established based on symptoms, elevated NT-proBNP and echocardiographic evidence of structural heart damage or diastolic dysfunction. The H2FPEF and HFA-PEFF scores used to estimate the likelihood of ICFEP were calculated. The H2FFPEF score has as parameters age, BMI, hypertension, atrial fibrillation, pulmonary artery systolic pressure and E/e' ratio. HFA-PEFF is a complex score with 3 criteria: functional (e's, e'l, E/e' ratio, TR peak velocity, systolic pulmonary artery pressure),

morphologic (indexed volume of left atrium, LV hypertrophy by LVMi, RWT and ED wall thickness) and biological (BNP, NTproBNP).

Results:

The H2FPEF score categorized 8 (8%) patients as having HFpEF with low probability, 68 (68%) patients with intermediate probability and 24 (24%) patients with high probability. The HFA-PEFF score categorized 5 (5%) patients as having a low probability of HFpEF, 51 (51%) patients as having an intermediate probability and 44 (44%) patients as having a high probability. Patients with low probability were excluded as having HFpEF, and those with intermediate probability need supplementary functional tests in order to certify the diagnostic. Limitations of the study were related to dificulties in testing obese patients.

Conclusions:

A significant proportion of suspected HFpEF patients are classified into different likelihood categories depending on the score used, leading to potential differences in patient management and additional testing requirements. The H2FPEF and HFA-PEFF scores differ in their components and approach to diagnosing HFpEF.

Keywords: H2FPEF score, HFA-PEFF score, heart failure with preserved ejection fraction (HFpEF)

Characterizing ST-elevation Myocardial Infarction: A Comparative Study of Patients Under 50 Years

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Background:

The incidence of ST-elevation myocardial infarction (STEMI) has risen among middle-aged patients, particularly men under 50. Young patients may exhibit different clinical features and risk factor profiles compared to older individuals. By characterizing these differences, the present study aims to enhance early identification and develop tailored management strategies to improve outcomes for younger patients with STEMI.

Materials and Methods:

This study included 173 consecutive patients with STEMI who underwent percutaneous coronary intervention at the Cardiology Clinic of the Emergency Clinical County Hospital Târgu Mureș. Patients were divided into two age groups as follows: group 1 – patients < 50 years (n = 36) and group 2 – patients ≥ 50 years (n = 147). Family history of cardiovascular diseases, personal medical history, cardiac enzymes, lipid profiles, uric acid levels, and left ventricular ejection fraction (LVEF) were assessed for all patients upon admission.

Results:

Patients in group 1 had a significantly higher incidence of family history of cardiovascular diseases (55.56% vs. 21.77%; p< 0.0001) and active smoking (88.89% vs. 43.54%; p< 0.0001). Conversely, patients in group 2 had a higher prevalence of hypertension (69.39% vs. 25.00%; p< 0.0001). Patients under the age of 50 presented significantly lower levels of hs-cTnI (2728.60 ng/L ± 728.50 vs. 3895.78 ng/L ± 921.10; p< 0.0001), CK-MB (12.40 ng/mL ± 2.48 vs. 18.29 ng/mL ± 4.12; p< 0.0001), and triglycerides (112.10 mg/dL ± 29.68 vs. 143.65 mg/dL ± 19.83; p< 0.0001) compared to older patients. In contrast, patients above 50 years of age had significantly lower levels of LDL cholesterol (110.48 mg/dL ± 28.17 vs. 142.35 mg/dL ± 32.74; p< 0.0001), HDL cholesterol (36.68 mg/dL ± 11.78 vs. 42.80 mg/dL ± 12.40; p= 0.007), uric acid (5.14 mg/dL ± 2.78 vs. 7.12 mg/dL ± 12.40; p= 0.0003), and LVEF (38.00% ± 5.00 vs. 45.00% ± 6.00; p< 0.0001).

Conclusions:

Younger patients showed a higher prevalence of family history and smoking, a worse lipid profile and higher inflammatory state, while older patients exhibited greater rates of hypertension. These insights underscore the necessity for age-specific strategies in early identification and management to improve outcomes in STEMI patients.

Surgical Case Reports

What Is Your Superpower? – Creativity: How To Manage Gastroschisis with an Improvised Silo Bag

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Introduction:

Gastroschisis is a congenital abdominal wall defect causing fetal organs to protrude into the amniotic cavity, and develop outside of the abdomen. Although this condition is often suspected during the 18th–20th weeks of gestation, definitive life-saving surgery can only occur postnatally. Despite being relatively common, gastroschisis presents a significant treatment challenge.

Case Report:

A male premature newborn was delivered via cesarean section due to multiple fetal malformations, including abdominal and cardiac defects. He was immediately admitted to the NICU for cardiorespiratory stabilization. Intraoperatively, severe gastroschisis was noted, with exposure of the stomach, small and large intestines, intestinal malrotation, and malfixation. Additional diagnoses included short bowel syndrome, microcolon, short mesentery, and Hirschsprung's disease. Primary abdominal closure was impossible, necessitating the creation of an improvised silo bag to protect the exposed intestines. The patient left the operating room in hemodynamic and respiratory stability.

Background:

Gastroschisis affects both the abdominal organs and the cavity itself, which remains underdeveloped. Directly repositioning the organs can dangerously elevate intra-abdominal pressure, compromising thoracic, cardiac, and respiratory function. Standard treatment involves the use of transparent silicone silo bags, which allow for bowel protection and gradual reduction until closure is safe. These bags are essential but expensive, with size variability posing an additional financial burden, particularly for hospitals in low-resource settings.

In our case, a sterile urinary catheter bag was repurposed to fashion an improvised silo. The bag was secured with sutures to the abdominal wall, demonstrating a creative solution to overcome resource limitations.

Conclusions:

This case highlights the interplay between medical treatment and financial resources. When resources for standard care are unavailable, innovation becomes a necessity. A deep understanding of the principles, which underlie the gold-standard devices, is essential to design effective, cost-efficient alternatives that achieve comparable outcomes. Such creativity in emergency situations can be lifesaving.

Freeze It to Fix It: Cryoablation in the Treatment of Monostotic Fibrous Dysplasia– A Case Report

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Introduction:

Monostotic fibrous dysplasia (MFD) is a benign fibro-osseous bone tumor, accounting for 5% to 10% of all benign bone tumors. It results from somatic activating mutations in the GNAS gene, leading to the replacement of normal bone with fibrous tissue. While often asymptomatic, MFD can cause pain, deformity, and an increased risk of pathological fractures due to bone weakness. This case study highlights the diagnostic and interventional management of MFD, focusing on cryoablation as a minimally invasive alternative to surgical excision. Notably, this procedure represents an innovative approach in orthopedic treatment in Romania, marking a significant step forward in minimally invasive bone tumor management.

Case Presentation:

The case involves a 26-year-old female patient who was admitted to the University Emergency Hospital of Bucharest for progressive pain and partial functional impairment in the left lower limb. Upon submission, the case began with a routine X-ray of the femur in anteroposterior and lateral views. The imaging raised suspicion of a tumor, prompting the application of the clinic's protocol for staging the lesion. Following the initial clinical examination, a

series of diagnostic investigations were performed, including a whole-body scintigraphy, which revealed uptake only in the metabolic phase, raising suspicion of a bone tumor, though not suggestive of malignancy. This was followed by a CT scan and an incisional biopsy, which confirmed the presence of a lesion with mixed characteristics, likely benign, and no clear malignant features. Histopathological examination indicated fibrous dysplasia, with possible association with a bone cyst. Given the lesion's size and the patient's symptoms, the treatment plan involved curettage, filling, and cryoablation, used as an adjuvant treatment to reduce the risk of recurrence. Cryoablation was performed using liquid nitrogen, as the freezing substance, with a temperature reaching -190°C. The procedure consisted of two cycles: the first cycle involved freezing for 10 minutes, followed by thawing for 10 minutes. After filling the cavity with a bone substitute, the second freezing cycle was applied for 10 minutes to complete the surgical treatment. The postoperative course was uneventful. Follow-up imaging at 14 days showed promising recovery, with no signs of recurrence or complications at this early stage, but further evaluations will be conducted as per the protocol at 3, 6, 9 and 12 months to quantify the results and effectiveness.

Conclusions:

This case highlights the successful use of cryoablation for monostotic fibrous dysplasia, an innovative approach in orthopedic treatment in Romania. With precise diagnosis and proper care, cryoablation offers a promising, minimally invasive solution for bone tumors, marking a significant development in the field.

Keywords: cryoablation, femur, monostotic fibrous dysplasia, benign bone tumor.

Laparoscopic Adrenalectomy for Pheocromocytoma in a Patient with Neurofibromatosis: A Case Report

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Introduction:

Pheochromocytomas are functional, catecholamine-secreting neuroendocrine tumours, located in the adrenal medulla, often associated with hypertension. While most pheochromocytomas are sporadic, familial predisposition is seen in multiple genetic disorders, such as neurofibromatosis type 1 (NF1), which affects approximately 1 in 3500 individuals. Pheochromocytoma occurs in 0.1%-5.7% of patients with NF1. Therefore, we present the exceedingly rare case of a patient with NF1 and pheochromocytoma.

Case Presentation:

A 40-year-old patient (female, height: 130 cm, weight: 30 kg) was admitted to the urology ward for the surgical treatment of a previously diagnosed right adrenal tumour. The patient presented with ventricular tachycardia but no hypertension and had a medical history of NF1, kyphoscoliosis and portal hypertension. Abdominal CT, using iodine-based contrast, revealed a 4 cm mass in the right adrenal gland. Endocrinologic examination confirmed the diagnosis of pheochromocytoma, revealing plasma metanephrine levels 4-fold above the upper limit of normal. The preoperative treatment with alpha and

beta-blockers started 7 days before the surgical procedure. The patient underwent 3D laparoscopic surgery through a lateral transabdominal approach. The difficulty of the procedure was increased due to the severe kyphoscoliosis, short stature of the patient and previous abdominal surgeries, including cholecystectomy and biliodigestive anastomosis. Exposure was limited due to the positioning of the gland in the retrohepatic area. The operative time was 230 minutes. There were no intraoperative complications and the patient remained hemodynamically stable throughout the surgery. Postoperatively, inotropic support was required for 2 days. The hospital length of stay was 5 days. Pathology confirmed the diagnosis of benign pheochromocytoma, PASS=1.

Discussions:

This case is made notable by its unusual presenting symptom (ventricular tachycardia) and its association with a familial basis inherited disease, these patients requiring further investigation for other neoplasias. While the management of patients with pheochromocytoma remains challenging, new techniques such as laparoscopy can provide improved postoperative recovery.

Keywords: pheochromocytoma; neurofibromatosis type 1; laparoscopic approach.

Exploring Approaches: Surgical Incisions in Hip Replacement

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Introduction:

The hip replacement surgery consists of replacing the diseased bone tissue and the cartilage with artificial parts. There are lots of surgical approaches proposed for this procedure, every one of them having their negative effects on multiple groups of muscles. This review aims to analise the advantages and disadvantages each approach has and to see which will result in less complications in post surgical rehabilitation.

Materials and Methods:

A search was done on PubMed using the key words "hip replacement", "hip replacement approach", "Smith-Petersen", "Modified Hardinge". Clinical trials and randomized controlled trials were selected based on the following criteria: full text available, published after the year 2005, the study to be written in english, done on humans aged over 19 years old.

Results:

Out of the 261 results found, 10 were selected and analised 1256 pacients, 21% were operated using the direct anterior approach, 19% posterior, 40% lateral and 17% minimally invasive and 3% other techniques. The anterior approach has a 6% higher risk of nerve injury, but it requires less recovery time. Reduced pain is associated with the approaches damaging smaller and less muscles, like the anterior one and the bikini incision.

Conclusions:

Robotic-assisted surgery with digital preoperative planning provides the best outcomes overall in terms of precision and post-operative recovery. However, the anterior approach can be advantageous for those prioritizing quick recovery, while the posterior approach remains a robust option for broader patient demographics.

Keywords: hip replacement; surgical; approach; incision.

Emergency Surgery of Intussusception in 12-year-old Patient Related to Meckel´s Diverticulum

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Introduction:

Intussusception is a serious pediatric condition characterized by intestinal telescoping into adjusting lumen, causing intestinal occlusion, ischemia and potential necrosis. In infants ranging from age of 1 to 6 month the intussusception is most of the cases idiopathic or triggered by mesenteric lymph node enlargement. However, in older patients like the presented patient, the intussusception is often caused by underlying pathologies. Meckel's diverticulum, polyps or even malignancies play a role in such case. The Meckel´s diverticulum is a congenital remnant of the omphalomesenteric duct which represents the head of the intussusception, leading to further complications in the presented case.

Case presentation:

A 12-year-old male patient was presented to the emergency department complaining about colicky abdominal pain, bilious vomiting. The symptoms started 12-14 hours ago but did not resolve after treatment admission at home. The clinical examination showed meteorism and the absence of bowl sounds. Initial ultrasound and CT abdomen-pelvis highlighted intestinal intussusception and excluded differential diagnosis.

Supra- and subumbilical exploratory laparotomy was performed. During the intervention an ileoceca-colic intestinal intussusception 50-60 cm from the ileocecal valve with greatly enlarged loops as well as mesenteric lymph node hyperplasia were discovered. Upon dissection, ischemia over a length of 20 cm was observed which led to segmental enterectomy. The segmental resection was followed by latero-lateral ileo-ileal anastomosis. A 5 cm Meckel´s diverticulum proximal to the ileocecal valve was found with oedematous and thickened wall. The diverticulum was resected with the ischemic segment as well as the appendix for prophylactic measures and the intestine was sutured. Drainage of the Douglas space and peritoneal lavage were performed.

The patient's postoperative development was favourable with complete recovery upon discharge.

Conclusions:

This case underlienes the importance of finding an underlying cause in cases of intussusception in older pediatric patients. Unlike in infants, where idiopathic cases are more common, older children often have a pathological lead point, with Meckel's diverticulum representing a frequent pathology. Fast surgical intervention is essential to resolve the obstruction and prevent further complications.

Keywords: intestinal intussusception; Meckel´s diverticulum; bilious vomiting; segmental enterectomy; pediatric surgery.

86 mm Ascending Aortic Aneurysm Rupture Risk: Size as a Key Indicator for Surgical Management

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Introduction:

Ascending Aortic Aneurysm (AAA) is a life-threatening cardiovascular condition with a high risk of dissection and rupture, requiring complex surgical intervention. Factors such as aneurysm growth rate and patient-specific risk factors like hypertension and atherosclerosis further increase rupture risk. This case highlights the impact of aneurysm size on rupture risk and the need for timely surgical management.

Case Description:

A 68-year-old female patient with a history of pulmonary embolism and AAA diagnosed four years earlier presented with anterior chest pain. Imaging examinations confirmed an 86/85mm AAA, without dissection but with moderate coronary atherosclerosis.

Surgical intervention was performed to replace the ascending aorta and aortic arch with two segments of tubular graft. The brachiocephalic arteries were reimplanted, and the graft's distal anastomosis was completed with a stable postoperative course.

On the 10th postoperative day, the patient developed complete thrombosis of the left subclavian and internal jugular veins. Heparin and vitamin K antagonists treatment was initiated, follow-up assessments showing partial recanalization of the veins.

Discussion:

This case highlights the high rupture risk associated with large AAAs, particularly those exceeding 80mm. The patient's 86mm aneurysm placed her in a high-risk category. Large thoracic aneurysms have an annual rupture risk above 30%, making elective surgery essential for survival (Davies et al., 2006). Despite known risks, the patient postponed surgery for years, underscoring the variability in aneurysm progression and the need for timely intervention. Additional factors like coronary atherosclerosis, hypertension and pulmonary embolism history exacerbated the pressure on the aortic wall.

Surgical decisions require balancing perioperative risks with rupture likelihood. While emergency repair carries a 50% mortality rate, elective surgery has significantly lower mortality. Guidelines recommend intervention for asymptomatic AAAs≥5.5cm and symptomatic or rapidly growing aneurysms, while smaller aneurysms monitoring is essential, as most of them eventually require surgery.(Gupta et al., 2011)

Conclusions:

Timely surgical repair is essential to prevent aneurysm rupture. While elective repair carries risks, they are far lower than the risks associated with rupture. Decisions should consider individual risk factors, aneurysm size, and growth rate to ensure repair before complications develop. Regular monitoring and patient education are critical for improved outcomes.

Keywords: abdominal aortic aneurysm; complications; rupture; risk factors.

The Role of Nulliparity and Obesity in the Development of Endometrial Cancer: A Case Report

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Introduction:

Endometrial cancer is the most common uterine cancer, with risk factors such as obesity and nulliparity and the potential protective factors including smoking. Nulliparity impacts the hormonal equilibrium by prolonging exposure to estrogen, thereby increasing the risk. Progesterone produced during pregnancy is protective and maintains the balance of hormones. The incidence of endometrial cancer is higher in developed countries due to fat-rich diets, obesity, and low parity. This case report describes an ex-smoker postmenopausal nulliparous woman with carcinoma endometrium, with low parity emphasis on early detection as a result of its aggressive clinical behavior.

Case Report:

A 48-year-old nulliparous morbidly obese woman (BMI: 38.5) with chronic venous insufficiency presented with postmenopausal bleeding. A diagnostic endometrial curettage revealed infiltrative endocervical adenocarcinoma.

Histopathological examination after total hysterectomy was diagnotic for endometrioid carcinoma without lymphovascular invasion.

The patient presents with a number of comorbidities, namely obesity and deep vein thrombosis history, thus the surgery was complicated. Due to an NSAIDs allergy, perioperative management required an allergology assessment. Postoperative recovery was uneventful, with recommendations for follow-up and weight management.

Discussion:

Nulliparity is a significant risk factor for endometrial cancer due to hormonal imbalance: the absence of pregnancy-related progesterone and extended estrogen exposures, leading to endometrial proliferation. Obesity augments the endocrine dysfunction: androgen aromatization to estrogen occurs in the adipose tissue, leading to estrogen excess. The interaction of the aforementioned variables underscores endometrial cancer's multifactorial origin, whereas the patient is an ex-smoker.

One study examining 332 625 women reported 1 005 endometrial cancer, revealing that women with a history of childbirth had a significantly lower risk than nulliparous women: ≥ 5 births versus nulliparous; HR=0,37 (Katagiri R., 2023)

Conclusions:

Nulliparity and obesity complement each other as a risk factor for type 2 endometrial cancer. Monitoring of high-risk patients, particularly those with metabolic syndrome, should be considered by healthcare providers. Early diagnosis of abnormal uterine bleeding is crucial in improving prognosis.

Keywords: endometrial carcinoma; nulliparity as a risk factor; obesity and endometrial cancer.

Form Silence To Sound: Managing Hypoplastic Cochlea – A Case Report

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Introduction:

Hypoplastic cochlea is a congenital malformation of the inner ear, characterized by an underdeveloped or undersized cochlea. This anomaly leads to sensorineural hearing loss of varying severity, depending on the degree of hypoplasia. In some cases, it may be accompanied by the absence of the auditory nerve. Imaging investigations such as CT and MRI are necessary to determine the best therapeutic approach. These allow for the assessment of the possibility of restoring hearing through a cochlear implant, which is the treatment of choice. Additionally, genetic testing is essential to identify the causes of congenital cochlear hypoplasia.

Case Report:

A child with no significant events during pregnancy did not pass the neonatal hearing screening test. Following tympanometry and ASSR, the diagnosis of bilateral profound sensorineural hearing loss was established, and hearing aids were recommended. CT and MRI revealed the absence of the cochlea in the left ear and cochlear hypoplasia in the right ear. A cochlear implant was successfully placed in the right ear without complications. The postoperative course was uneventful. The patient was discharged after three days,the sutures

were removed on the eighth postoperative day. During implant activation, the patient exhibited reactions that were interpreted as responses to sounds.

Discussions:

The cochlear implant follows the next set of steps. Right retroauricular incision, dissection of the subcutaneous planes exposing the mastoid. Using a drill, entry is made into the antrum, revealing the external semicircular canal. A posterior tympanotomy is performed, gaining access to the tympanic cavity. The bed for the implant receiver is drilled. The MedEl Form 19 implant is fixed, and the electrode array is inserted via the round window approach without complications. The implant, telemetry, and cochlear nerve potential are checked and found to be within normal limits. Hemostasis is achieved. Anatomical layer closure with sutures. Superficial dressing applied.

Conclusions:

Hypoplastic cochlea presents challenges for auditory rehabilitation, but early diagnosis and intervention are crucial. Cochlear implantation, when feasible, can provide significant auditory benefits. This case highlights the importance of timely surgery and ongoing rehabilitation to optimize hearing outcomes.

Keywords: cochlea; hypoplastic; congenital; implant; surgery.

Dermatosurgery - Extensive Periocular Keratoacanthoma

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Introduction:

Keratoacanthoma is an epidermal tumor of ambiguous etiology. There is a debate whether it is a benign neoplasm with a spontaneous tendency of resolution or if it is a low-grade form of squamous cell carcinoma that has the capacity to grow and spread aggressively. This tumor typically develops rapidly and manifests as a hemispherical elevated lesion with a center crater filled with keratin. The lower lid is a preferred site to some extent. The best course of treatment is simple excision at an early stage. There is no established pathogenesis. The skin was completely healed only after 2 weeks.

Patient presentation:

A 75-year-old man was referred for treatment of a large, painful, ulcerated lesion involving the medial aspect of the right lower eyelid. The lesion developed less than 1 year earlier with complaints of pain, itching, redness, and progressively enlarged over 3 months, despite the application of several antibiotic skin ointments. At presentation, the keratoacanthoma appeared as a

crater-shaped lesion with the dimensions 17 × 15 mm. The keratoacanthoma has been surgically removed after perilesional injections of lidocaine with adrenaline 1%. A full-thickness preauricular graft was used in reconstruction.

Discussions:

Due to the large size of the lesion, there is a risk of not maintaining the resection margins. Being situated at the lower eyelid level, depending on the placement of the graft, there is a risk of producing both entropion or ectropion. The preauricular area is an excellent graft site, with the best matching skin color for the reconstruction of eyelid defects.

Conclusions:

Periocular keratoacanthoma excision is highly suggested due to its aggressive character and unclear association with squamous cell cancer. Eyelid keratoacanthoma can be surgically removed with satisfactory results and a very low chance of recurrence.

Keywords: keratoacanthoma; lower eyelid reconstruction; preauricular graft; resection margins.

Surgical Reviews/ Meta-Analyses

Tennis Elbow - Is KinesioTape the Future of Conservative Treatment?

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Introduction:

Lateral epicondylitis (tennis elbow), an upper limb injury, affects manual workers and athletes of racquet sports, with conservative and surgical approaches. Kinesio Taping (KT) has no side effects discovered yet. This review aims to compare the effectiveness of KT and other conservative treatments, such as Steroid Injections (CSI), rest-and-medication (RMG) and others.

Materials and methods:

A search was performed on PubMed using the keywords 'tennis elbow', 'lateral epicondylitis', 'kinesiotaping', 'conservative'. Articles were selected based on the following inclusion criteria: published in the last 8 years, full text available, Quick Disability of Arm Shoulder and Hand Test (QDASH), hand grip test, Visual Analogue Scale (VAS) for pain intensity, 4 weeks follow-up. Exclusion criteria concerned lack of KT use, local trauma, overlapping or did not meet the inclusion criteria. Bias risk was not evaluated and PRISMA guidelines were used for data synthesis.

Results:

Out of 13 search results, 7 Research Articles, Controlled and Randomized Studies were selected. Among 287 patients, 164 used KT as treatment, 25-sham taping, 71-CSI, 15 patients used RMG. Erpala et al. reported mean VAS

pretreatment for KT was 8, similar to CSI (8), while RMG showed values of 7, with a $p<0.001$. For the 4 week follow-up, KT reached a VAS score of 2, as CSI (2) and an RMG score of 5 ($p<0.001$). Shakeri et al. observed that the KT with tension had a more efficient result as the placebo did, ruling out the possibility of the placebo effect. Giray et al. compared the effects of KT plus exercises and Sham Taping, with -23.85 mean difference between baseline and 4 weeks posttreatment, using the QDASH test, and a 5.7 mean difference for Grip Strenght ($p<0.001$).

Conclusions:

While KT, CSI and RMG showed effectiveness during the first 2 weeks, KT exhibited superiority in controlling pain and grip strength without side effects or time limit. Understanding the comparative benefits of these treatment plans may inform practitioners regarding their choice, therefore the necessity to continue the research on this topic.

Keywords: tennis elbow; lateral epicondylitis; kt; conservative; tendonitis; racquet sports injuries.

Roux-en-Y Gastric Bypass versus Laparoscopic Sleeve Gastrectomy for Weight Loss and Diabetes Control - A Systematic Review

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Introduction:

Obesity is a global epidemic and a major risk factor for type 2 diabetes (T2D). Bariatric surgery is one of the most effective and long-lasting interventions for managing obesity and its related comorbidities. The most commonly performed procedures are Laparoscopic Sleeve Gastrectomy (LSG) and Roux-en-Y Gastric Bypass (RYGB). This study aims to evaluate and compare the outcomes of LSG and RYGB, with a focus on weight loss and T2D remission

Material and Methods:

A search was conducted on Science Direct, Google Scholar, and Pubmed to find studies published after 2017 using keywords such as: 'roux-en-Y gastric bypass', ' laparoscopic sleeve gastrectomy',' bariatric surgery',' obesity', and 'type 2 diabetes'. Inclusion criteria were studies that focused on post-surgery weight loss and post-intervention diabetes control. Articles comparing other treatment methods such as medical therapy were excluded, as studies with longer follow-up periods and those focusing on post-surgery hepatic function, in case of overlap. Bias risk was not assessed and PRISMA guidelines were used for data synthesis.

Results:

From the 20 initially selected studies, 8 studies comprising 1,572 patients met the inclusion criteria. Wallenius et al. (2020) examined 49 patients who underwent RYGB or LSG, reporting no significant difference in T2D remission between the two procedures at 1 year (44% vs. 46%, P = .897). While total weight loss was similar, percentage excess weight loss (EWL%) was significantly higher after RYGB (78 ± 22% vs. 60 ± 22%, P < .01). Murphy et al. (2018) studied 114 patients and found that total weight loss at 1 year was greater with RYGB than LSG (32.2 ± 7.7% vs. 27.1 ± 7.5%, P < 0.001).

Conclusions:

In conclusion, these findings suggest that while both procedures are effective for weight loss and T2D remission, RYGB may provide superior EWL outcomes. Long-term studies are necessary to determine LSG's effectiveness in managing obesity and T2D.

Keywords: roux-en-Y gastric bypass; laparoscopic sleeve gastrectomy; bariatric surgery; obesity; type 2 diabetes.

Surgical Original Studies

The Impact of Delayed Graft Function on Patient and Graft Survival After Kidney Transplantation: An Original Retrospective Research

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Introduction:

Delayed Graft Function (DGF) is a clinical diagnosis indicating allograft failure within the first week post-transplant, necessitating dialysis. We want to present the effects of DGF on graft function and survival post kidney transplantation (KTx) at one, three- and five years post KTx.

Methodology:

This research included 353 patients who underwent a KTx between May 2017 and September 2023 at the Clinical Institute of Urology and Renal Transplantation in Cluj-Napoca. The character of this study is retrospective, as the analysis of all the collected data took place only after the aforementioned period. Renal grafts were evaluated based on the Kidney Disease Profile Index (KDPI) stratified into three groups: <20% (0), 20%-80% (1), >80% (2). Renal function was assessed using the estimated glomerular filtration rate (eGFR) using the Chronic Kidney Disease Epidemiology Collaboration score (CKD-EPI). Continuous variables when normally distributed were compared using

One-way ANOVA test. The normality was assessed using the Shapiro-Wilk test.

Results:

We analyzed patient and graft survival at one-, three- and five-years both in patient with and without DGF. Results showed significant differences at three- and five-years, both in graft and patient survival ($p<0.01$). When we analyzed patient and graft survival rates in DGF patients among the three KDPI groups we found no statistical significance at one- and three years, but at five years, both graft and patient survival were statistically different among the three groups ($p<0.05$). Nonetheless, the CKD-EPI of the surviving grafts revealed significant differences in the first year in the DGF versus nonDGF group, with no differences at three- and five- years. The DGF patients grouped according to the KDPI had significant differences in eGFR at 1- and 5-year between groups 0-1, 0-2, but no differences 1-2. The third year showed differences in the following association: 0-2 and 1-2.

Conclusions:

DGF was associated with a lower patient and graft survival at 3 and 5 years post KTx. Patient and graft survival rates were also found to be lower with increasing KDPI scores. Therefore, DGF is associated with a poorer medium- and long-term patient and graft survival.

Keywords: delayed graft function, kidney transplantation, statistical significance; graft survival.

Fundamental Reviews/ Meta-Analyses

Unveiling the Risks of Phytotherapy: Teratogenic Impact, Mechanisms, and Future Perspectives

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Co-Author: *Manea Ana-Maria*
Scientific Coordinators: *Dr. Meszaros Noemi*

Background:

The use of phytotherapies has been widespread throughout historical times, owing to their healing properties; however, the teratogenic effects associated with their use during pregnancy have raised alarms. Modern research shows the presence of bioactive compounds in many plants which can interfere with the embryo, during their formation, potentially resulting in congenital malformations, intrauterine growth retardation, and spontaneous abortion.

Objectives:

Identify plant with scientific evidence of teratogenic risk.

Investigate the underlying biochemical and physiological mechanisms through which these effects occur.

Research documented cases of congenital malformations attributed to the use of phytotherapies

Compare international regulations about safety of medicinal plants during pregnancy.

Materials and Methods:

An extensive review of literature was conducted using databases including PubMed, Scopus, and Google Scholar, focusing on teratogenic effects related to phytotherapies. Priority was given to research using animal models in

addition to observational evidence from human patients. Comparative analysis of teratogenic mechanisms, case report review, and policy assessment were also conducted to identify toxicological mechanisms, trends, and regulatory policies.

Results:

Plants with known teratogenic activities:

Senna alexandrina (senna) → contains anthraquinones, associated with uterine contractions and spontaneous abortions.
Ruta graveolens (rue) → rich in furocoumarins and alkaloids, known to induce cardiovascular anomalies and neurotoxicity.
Peumus boldus (boldo) → contains boldine, a hepatotoxic alkaloid with embryotoxic effects.
Luffa operculata → associated with cytotoxicity and risk of craniofacial malformations.
Clitoria ternatea → in studies on duck embryos, it has shown negative effects on placental vascularisation and foetal development.
Crataegus oxyacantha → studies on animal models show an increased risk of cardiac abnormalities.

The teratogenic mechanisms include hormonal interference, placental vascular alterations and epigenetic modifications. Documented clinical cases were analysed, which show that the use of these plants during pregnancy is still widespread, often for cultural reasons or due to a lack of information.

Conclusions:

The idea that 'natural' is equivalent to 'safe' is dangerous, especially during pregnancy. It is essential to promote greater awareness of the teratogenic risks of herbal medicine through educational campaigns, stricter regulatory control and an integrated approach between traditional and modern medicine to ensure safer use of medicinal plants.

Keywords: Phytotherapy; teratogenicity; medicinal plants; risks during pregnancy; congenital malformations; herbal toxicity; phytotherapeutic regulations.

Meta-Analysis on the Vertebral Artery Loops

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Introduction:

The vertebral artery (VA) follows a complex anatomical course as it ascends from its origin, commonly the subclavian artery, through the transverse foramina of the cervical vertebrae until it pierces the dura to supply the posterior circulation of the brain. In certain individuals, the VA may exhibit vascular loops—tortuous deviations (loops) from its typical trajectory. These variations have been implicated in neurovascular compression syndromes, potentially leading to cervicogenic dizziness, radiculopathy, and even cranial neuropathies due to direct contact with adjacent nerve roots. Understanding the prevalence, morphological characteristics, and clinical significance of these VA loops is essential for both diagnostic and surgical considerations. This meta-analysis synthesizes existing literature to assess the anatomical patterns of vertebral artery loops and their correlation with neurological symptoms, aiming to provide a comprehensive evaluation of their clinical implications.

Materials and Methods:

After conducting a systematic search on the PubMed and Google Scholar databases up to December 2024 and applying the inclusion and exclusion criteria, 67 articles were included in the present study.

Results:

A meta-analysis of 67 studies, including 47 case reports and 20 original studies, identified vertebral artery (VA) loops across all segments. The V2 and V3 segments were the most affected, with imaging modalities such as MRA, CTA, and CT commonly used. Symptoms varied, some cases being asymptomatic, while others reported vertigo and neuralgia. VA loops frequently compressed adjacent structures, with microvascular decompression being the primary treatment in symptomatic cases.

Conclusions:

Vertebral artery loop formation is a rare but clinically significant anatomical variation that can lead to a range of symptoms, from mild cervical pain to severe neurological deficits such as hemifacial spasm or trigeminal neuralgia. Early diagnosis through advanced imaging techniques, such as MRI and CTA, is crucial for identifying patients who may benefit from surgical intervention. While conservative treatment is often effective, surgery may be necessary for those with severe or progressive symptoms. The importance of preoperative imaging and careful surgical planning cannot be overstated, as it helps minimize the risk of complications and ensures optimal outcomes for patients with vertebral artery loops.

Keywords: anatomical variability; vertebral artery loop formation; imagistic anatomy.

Candida auris and Climate Change: A Growing Threat to Global Health

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Background:

Climate change significantly influences public health, including the emergence and proliferation of pathogenic fungi such as Candida auris. First identified in Japan in 2009, C. auris has shown an alarming 50% increase in global incidence in recent years, driven by environmental conditions favored by global warming. This multidrug-resistant fungus complicates treatment options and increases the severity of nosocomial infections.

Objectives:

This review aims to analyze the relationship between climate change and the global spread of C. auris, focusing on its adaptability to rising temperatures, epidemiological trends, and antimicrobial resistance.

Materials and Methods:

A systematic literature review was conducted using data from the Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), and recent peer-reviewed studies. Additionally, clinical data from hospitalized patients diagnosed with C. auris were analyzed to assess antifungal resistance patterns.

Results:

Evidence suggests that 70% of C. auris strains exhibit thermal tolerance, allowing them to thrive in high-temperature environments that are increasingly prevalent due to climate change. Epidemiological data indicate that 30% of previously unaffected regions are now reporting cases. Clinical data from 13 hospitalized patients with C. auris infections revealed high resistance to antifungal agents, with 10 cases resistant to Amphotericin B and all 13 resistant to Fluconazole.

Conclusions:

The impact of climate change on fungal pathogenicity is evident, contributing to the geographic expansion and increased incidence of C. auris infections. The high resistance to standard antifungal treatments necessitates urgent development of new therapeutic strategies. Surveillance of emerging outbreaks and education of healthcare personnel on climate-related infectious risks are crucial in preventing a global public health crisis.

Keywords: Candida auris; climate change; nosocomial infections.

Fundamental Original Studies

The Mandibular Condyle: Morphology and Relationship with the Temporal Bone

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Background:

The morphology of the mandibular condyle has been studied in the literature since 1966 limited data remain regarding its symmetry, position, and the relationship between the condyle and the morphology of the temporal bone in the area of the articular eminence and the zygomatic root.

Materials and Methods:

140 condyles from 70 CBCT scans (37 men and 33 women) were analyzed. In the coronal plane, morphology, symmetry, medio-lateral diameter, and the inclination of the medial face relative to the mandibular ramus were assessed. In the axial plane, morphology, symmetry, minimum intercondylar diameter, intercondylar angle, anterior inclination, and the relationship between the morphology of the anterior face of the condyle and the temporal bone were evaluated.

Results:

In the coronal plane, morphology distribution was 53.5% convex, 20% angular, 15.7% flat, and 10.7% round, with a symmetry rate of 52.8%.

In the axial plane, morphology distribution was 35% concave, 15.7% convex, 27.14% flat, and 22.14% angular, with a symmetry rate of 42.8%. The mean

intercondylar angle was 136.69°, with a standard deviation (std) 16.10°. The mean anterior inclination angle of the condyle was 68.96°, with a std of 6.69°. The mean minimum intercondylar diameter was 82.99 mm, with a standard deviation of 4.67 mm. In 28.5% of cases, the condyle changed to an angular morphology above the minimum intercondylar diameter. 18.5% of condyles maintained an angular morphology. In comparison, 20.7% showed a correlation between the angular morphology of the condyle and the morphology of the articular eminence and the zygomatic root of the temporal bone. The medial open angle between the lateral slope of the condyle and the zygomatic root had a mean value of 39.39°, while the lateral open angle measured 25.55°.

Conclusions:

This study confirms previous literature findings on condylar morphology and provides new data on symmetry and the relationship between the bony structures of the temporomandibular joint (TMJ). These findings are useful for diagnosing and planning treatment for TMJ dysfunctions. The study highlights a high degree of asymmetry in the bony structures and demonstrates a correlation between the morphology of the mandibular condyle and other TMJ bone structures.

Keywords: mandibular condyle; symmetry; morphology; articular eminence; TMJ.

Sociodemographic Insights of Emotional Response Control and Disinhibition Control in Medical Students

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Introduction:

Due to transitioning from adolescence to young adulthood, medical students may cope with a lot of emotional distress.

The aim of this study was to examine the sociodemographic predictors of emotional response control and disinhibition control, both being components of mindful eating, among medical students.

Methodology:

Utilizing Framson's Mindful Eating Questionnaire along with sociodemographic questions, the study involved 521 students studying general medicine, of which 24.2% male and 75.8% female. For data collection, an online instrument based on Google Forms was used.

The analysis was conducted using two linear models: one predicting the control of emotional response and the other predicting the control of disinhibition.

Significant demographic predictors of each component of the mindful eating score included sex, perceived health status, stress levels, BMI and nutrition knowledge.

Results:

Regarding health status, men had a significantly higher prevalence of both excellent perceived health status of 52.4% (66) vs 36.7% (145) and excess weight of 30.2% (38) vs 14.7% (58), compared to women. There were no significant differences between genders regarding the year of study, stress levels and nutrition knowledge scores.

Results show that disinhibition control is significantly associated with sex (B=0.166, Beta=0.118, p=0,006), BMI (B= -0.049, Beta= -0.286, p=0.000), stress levels (B= -0.120, Beta= -0.096, p=0.020) and nutrition knowledge (B=0.008, Beta=0.137, p=0.002). A better control of disinhibition was demonstrated for female participants, those with good health status and nutrition knowledge. High stress levels and BMI are connected with a lower control of disinhibition.

Emotional response control is significantly associated with sex (B= -0.256, Beta= -0.209, p=0.000), BMI (B= -0.028, Beta= -0.186, p=0.000) and high stress levels (B= -0.158, Beta= -0.146, p=0.001). In this case, women showed a lower control of emotional response, as well as those with high BMI and high stress levels.

Conclusions:

Overall, women showed lower control over emotional response, while men exhibited a lower disinhibition control. Additionally, both BMI and stress had a negative impact in both cases. Thus, interventions to address stress management alongside nutritional education could be essential for implementing healthier, more mindful eating habits.

Keywords: emotional response control; disinhibition control; stress levels; nutrition knowledge; mindful eating.

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