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în Medicină din Timișoara

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ABSTRACT BOOK

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ABSTRACT BOOK

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MEDIS 2026 ABSTRACT BOOK – WELCOME LETTER

Dear colleagues, participants, mentors, and all MEDIS 2026 enthusiasts,

Welcome to the *Book of Abstracts* of the 26th Edition of the International Medical Congress for Students and Young Doctors of Timișoara — an edition that celebrates the spirit of innovation, ambition, and human connection that continues to define our academic community. Within these pages lies far more than a collection of scientific summaries. This book is a reflection of countless hours spent in laboratories, clinics, libraries, and operating rooms; of questions that demanded answers and ideas courageous enough to be shared. Each abstract represents a voice driven by curiosity, perseverance, and the desire to contribute meaningfully to the ever-evolving world of medicine and biomedical science.

Scientific research begins with the courage to ask "why?" — and progresses through the determination to keep searching even when answers are uncertain. By choosing to participate in MEDIS 2026, you embraced that challenge. You stepped beyond routine learning and entered the world of academic dialogue, critical thinking, and scientific discovery. Whether presenting original research, clinical findings, surgical studies, or innovative perspectives, your work enriches this congress and strengthens the future of medicine itself. This edition is especially meaningful because it brings together participants from diverse backgrounds, cultures, and fields of interest, united by a common purpose: advancing knowledge and improving human life through science. In an era where medicine evolves faster than ever before, collaboration, interdisciplinary thinking, and academic curiosity are not simply admirable qualities — they are essential. MEDIS exists because of individuals like you: people willing to explore beyond the expected and shape the future with both intellect and compassion.

We extend our deepest gratitude to the professors, coordinators, supervisors, and mentors whose guidance and dedication helped transform ideas into valuable scientific contributions. Behind every successful project stands a network of support, encouragement, and shared passion for education and research. Their mentorship continues to inspire new generations of medical professionals and researchers. To every author featured in this book: thank you for your trust, your effort, and your courage to contribute your work to this international academic dialogue. Regardless of awards, rankings, or previous experience, your presence here is already an achievement. Scientific progress is built not only by extraordinary discoveries, but also by the willingness to learn, collaborate, and continuously strive for excellence. As you explore the abstracts gathered in these pages, we hope you will discover not only valuable research, but also inspiration — inspiration to ask new questions, initiate future collaborations, and continue pursuing knowledge with passion and integrity.

May MEDIS 2026 remain not only a congress you attended, but an experience that motivates you long after its closing ceremony — a reminder that medicine is not only a science, but also a community of people determined to make a difference.

With appreciation and warm regards,
The MEDIS 2026 Organizing Committee

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FUNDAMENTAL SCIENCES

FUNDAMENTAL SCIENCES. ORIGINAL STUDIES

Validation of the Bulgarian Version of the 7C Vaccination Readiness Scale Among Healthcare Workers

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Introduction: Vaccination readiness reflects psychological determinants of vaccine uptake and is critical for understanding and addressing suboptimal vaccination coverage. The 7C vaccination readiness scale has been validated in several countries; however, no validated Bulgarian version is currently published. This study aimed to evaluate the reliability, construct validity, and predictive validity of the Bulgarian version of the 7C short scale among healthcare workers (HCWs).

Materials and Methods: A cross-sectional survey was conducted among Bulgarian HCWs. After data quality exclusions, the analytic sample comprised 788 participants. The Bulgarian 7C short scale (7 items; Likert 1–7, higher scores indicating greater readiness; Calculation and Conspiracy reverse-coded) was assessed for internal consistency (Cronbach's α, McDonald's ω) and structural validity using confirmatory factor analysis (CFA). Predictive validity was examined using logistic regression with self-reported influenza vaccination status as the outcome (≥2 doses; sensitivity analysis ≥1 dose), adjusting for age, sex, and professional position.

Results: Among participants, 27.3% (215/788) reported receiving ≥2 influenza vaccine doses (sensitivity: ≥1 dose, 44.4%). Internal consistency of the 7-item scale was acceptable (α=0.72; ω=0.76). CFA supported a general readiness factor, with six items showing moderate-to-strong loadings (λ=0.59–0.78); the Calculation item loaded weakly (λ=0.22) and demonstrated a negative item–total correlation. Excluding Calculation improved reliability (6-item scale: α=0.82; ω=0.82). In adjusted models, the 6-item readiness score was strongly associated with influenza vaccination (≥2 doses: OR 5.31 per 1 SD increase, 95% CI 3.94–7.33; AUC=0.87). Results were consistent using the ≥1-dose outcome (OR 8.54; AUC=0.89).

Conclusions: The Bulgarian version of the 7C vaccination readiness scale demonstrates acceptable reliability and validity among HCWs. Consistent with prior international validations, the Calculation component showed weaker psychometric performance. A 6-item short form excluding Calculation is recommended for applied and epidemiological use.

Keywords: vaccination readiness; 7C scale; psychometric validation; healthcare workers; influenza vaccination; Bulgaria

Culture Media Influence on Cell Migration Capacity: An In-Vitro Scratch Assay Study

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Introduction: Cell migration is essential for tissue regeneration and contributes to inflammatory and neoplastic processes. The *scratch assay* is a widely used in vitro method for quantitatively assessing wound closure and cellular migratory capacity. Cellular metabolism, particularly nutrient availability and glucose levels, can significantly influence migration by altering the metabolic state of cells.This study aimed to evaluate the effect of culture medium composition on the migratory capacity of Hoffa-derived mesenchymal stromal cells using a scratch assay. We hypothesized that the initial metabolic environment modulates the cellular response to injury, leading to differences in wound closure dynamics.

Materials and Methods: Hoffa-derived mesenchymal stromal cells were cultured under two conditions: α-MEM and high-glucose DMEM. Four experimental wells were included. Cells reached >90% confluence before injury induction. A linear scratch was created using a 200 µL pipette tip. After injury, the medium was either maintained or changed, generating four conditions: αMEM→αMEM, αMEM→DMEM, DMEM→αMEM, and DMEM→DMEM. Images were acquired at T0, 4 h, 24 h, and 48 h using a 4× objective. Image analysis was performed with ImageJ (Fiji) using the Wound Healing Size Tool. Wound area and percentage closure relative to T0 were calculated.

Results: Wound closure differed markedly between groups. At 24 h, closure reached 97.17% (αMEM→αMEM) and 91.65% (αMEM→DMEM), indicating efficient migration in αMEM-preconditioned cells. In contrast, DMEM-preconditioned cells showed reduced closure: 40.40% (DMEM→αMEM) and 13.35% (DMEM→DMEM). An early wound expansion was observed in DMEM→αMEM at 4 h (–24.53%), suggesting transient instability. At 48 h, three groups exceeded 85% closure, while DMEM→αMEM remained lower (46.20%). These findings support a metabolic memory effect influencing migration.

Conclusion: The initial metabolic environment significantly affects cell migration and wound healing dynamics. αMEM-preconditioned cells showed faster, more stable closure, while DMEM conditions led to delayed responses. Medium switching did not immediately restore migration. These results highlight the role of metabolic context in scratch assay models and underscore the importance of cell migration, wound healing, metabolic environment, and ImageJ analysis in experimental design.

Keywords: cell migration; scratch assay; wound healing; metabolic environment; ImageJ analysis

Identification of MHC Class I and II-Restricted Epitopes as Candidates for Breast Cancer Immunotherapy

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Introduction: Breast cancer remains the most frequently diagnosed malignancy and a leading cause of cancer-related mortality among women worldwide. Although advances in targeted therapy and immunotherapy have improved outcomes, tumor heterogeneity and treatment resistance continue to limit durable responses. Neoantigen-based vaccination represents a promising strategy to induce tumor-specific immune responses while minimizing off-target toxicity.

Materials and Methods: A total of 33 formalin-fixed paraffin-embedded (FFPE) breast cancer tissue samples were subjected to next-generation sequencing (NGS), identifying 246 somatic mutations. Wild-type protein sequences retrieved from UniProt were compared with their mutated counterparts to generate mutation-containing peptide libraries. Thousands of candidate neoepitopes were obtained and evaluated using IEDB HLA class I and class II binding affinity and antigen processing prediction tools. High-affinity peptides were linked using the validated LLSVGG linker to generate synthetic long peptides (SLPs), resulting in approximately 28,000 constructs. Subsequent in silico filtering included allergenicity (AlgPred 3.0), toxicity (ToxinPred 3.0), physicochemical characterization (ProtParam), antigenicity prediction (VaxiJen 3.0), IFN-γ epitope prediction (IFNepitope 2), structural modeling (ColabFold), and biophysical stability assessment using DynaMine, EFoldMine, DisoMine, and Agmata to ensure conformational flexibility and reduced aggregation propensity.

Results: Following multi-step filtering, a final pool of 4,276 stable, non-allergenic, non-toxic, and antigenic synthetic long peptides was obtained. Peptides were organized into vaccine batches of 50, 60, and 80 constructs to maximize population HLA coverage and mutation representation while maintaining a feasible off-the-shelf vaccine size. Peptide–MHC class I complex stability was further validated using NetMHCstabpan prior to batch assembly.

Conclusion: This study proposes a computational framework for identifying shared neoepitopes derived from recurrent breast cancer mutations, enabling the design of off-the-shelf synthetic long peptide vaccines with broad population coverage. Such an approach may bridge personalized neoantigen immunotherapy and scalable cancer vaccine development.

Keywords: Breast cancer, Neoepitopes, Synthetic long peptides, In silico screening, Cancer vaccine, MHC stability

The Impact of the COVID-19 Pandemic on Current Teaching Methods: Cross-Sectional, Multicentric Observational Study

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Introduction: The COVID-19 pandemic profoundly transformed educational systems worldwide, forcing a rapid shift from traditional in-person education to Emergency Remote Teaching (ERT). This transition accelerated the digitalization of education and reshaped the role of technology in the learning process. The present study examines the impact of the pandemic on the current teaching methods, emphasizing both the challenges encountered and the opportunities that emerged within modern medical education.

Methods and Materials: This observational, cross-sectional, multicentric study evaluated Romanian medical students from several universities using a self-developed online questionnaire consisting of 48 items, including multiple-choice questions (MCQs) and Likert-scale items. The survey was distributed via social media platforms (Instagram and WhatsApp).Data collection was conducted over six weeks (February–March 2025). Both preclinical and clinical-year students were included. Exclusion criteria included incomplete questionnaires and students from universities with fewer than 3 responses.

Results: Data collection yielded 451 responses, with 436 remaining after applying exclusion criteria. The analysis of the 436 responses revealed a preference for hybrid formats for theoretical lectures, whereas onsite instruction remained the indispensable modality for practical training. Students identified better time management and increased scheduling flexibility as the primary benefits of online models, allowing for a more personalized studying schedule. The transition to digital platforms introduced significant social challenges, most notably, the lack of peer-to-peer and student-faculty interaction, which led to feelings of professional isolation. While the efficiency of digital lectures was acknowledged, the barriers to online practical education were profound, characterized by drastically reduced patient interaction and a perceived failure to achieve necessary clinical competencies. Online academic dishonesty might increase because reduced supervision and a perceived sense of anonymity lower the psychological barriers to cheating while providing instant access to external resources. The data indicated that higher acceptance of hybrid learning significantly correlated with more positive perceptions of overall teaching methodology and a lower perceived inclination toward academic dishonesty.

Conclusion: The pandemic accelerated Romania's transition to digital teaching, proving effective for theory but inadequate for practical training. While students value digital flexibility, the necessity of hands-on clinical experience makes a hybrid model the most viable long-term strategy.

Keywords: Medical Training, COVID-19 Pandemic, Teaching Methods

Mast Cells as a Key Player in Bone Fractures

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Introduction: In bone healing after fracture, mast cells may influence the inflammatory response toward the fracture, vascularization, bone formation, and callus remodeling by osteoclasts. A dual role of mast cells involving both osteocatabolic and osteoprotective effects was described. The aim of this study was to investigate the role of mast cells in the process of bone fracture healing.

Material and methods: 52 samples of bone tissue from fractures with different localisations were assessed. Hematoxylin eosin staining and CD34/ mast cell tryptase double immunostaining were proceed. The present study was conducted in accordance with The Declaration of Helsinki.

Results: As vascular models, vessels with and without lumen have been identified. Degranulated mast cells with free granules predominated. Mast cells were attached to the vascular wall. Maximum average value of mast cells of 24.33 was found in a case of old fracture of the fibular malleolus consolidated with a conventional plate. The maximum average value of vascular microdensity, of 43, was found in a case of a fracture in the middle third of the femur consolidated with a plate with locked screws. The lowest values of vascular and mast cell microdensity were noted in cases with right fibular malleolus fracture consolidated with a conventional plate with screws.

Discussion: Previous research showed that mast cells initiate acute inflammatory response at fracture site, activating the healing process. Our study showed that mast cells can sustain angiogenesis, influencing bone formation in the repair process in fractures. Our data aligns with existing literature and will be further supplemented by future research.

Conclusions: These findings suggest that MCs may regulate the fracture healing process by influencing angiogenesis and bone formation.

Keywords: bone disorders, fracture healing, mast cells, angiogenesis

Anticoagulants from a Chemical Perspective: Medicinal Design, Mechanisms of Action, and New Research Directions

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Introduction: Anticoagulants are essential drugs used in the prevention and treatment of thromboembolic events. Their indications include deep vein thrombosis, pulmonary embolism, atrial fibrillation for stroke prevention, mechanical heart valves, thrombophilic syndromes, and postoperative prophylaxis. This class includes vitamin K antagonists (warfarin, acenocoumarol), heparins, and direct oral anticoagulants (DOACs) such as rivaroxaban, apixaban, edoxaban, and dabigatran, which allow easier administration without continuous monitoring. This study aimed to investigate the interaction between Eosin Y and selected direct oral anticoagulants (DOACs), evaluate their pharmacological properties through in silico methods, and explore drug design strategies focused on receptor interactions.

Materials and Methods: The interaction between Eosin Y and rivaroxaban, apixaban, edoxaban, and dabigatran was analyzed to identify supramolecular lipophilic interactions, such as micelle formation. Pharmacological properties were assessed using in silico calculations.

Results: An integrated biochemical and ADME analysis highlighted differences among the studied anticoagulants. Variations in lipophilicity, polarity, and molecular flexibility influenced membrane permeability and bioavailability. Apixaban and rivaroxaban showed favorable oral absorption, while dabigatran displayed properties consistent with its prodrug nature. The in silico drug design model demonstrated a predictability of approximately 98%, supporting the reliability of receptor-mapping approaches for optimizing chemical structures, enhancing pharmacological profiles, and minimizing adverse effects. Distinct supramolecular interaction patterns with Eosin Y were observed. Dabigatran exhibited the strongest interaction, likely attributable to electrostatic and hydrogen-bonding mechanisms.

Discussion: Advances in anticoagulant design have expanded therapeutic options; however, treatment selection should account for individual risk factors and bleeding risk. DOACs provide advantages over traditional anticoagulants, such as simplified administration and fewer drug interactions, although hemorrhage remains a significant concern. Higher gastrointestinal absorption correlated with increased octanol–water partition coefficients, indicating enhanced oral bioavailability. These properties were also associated with a lower predicted bleeding risk, as demonstrated by in silico drug design analyses.

Conclusions: Dabigatran demonstrates significant interaction with Eosin Y, suggesting potential pharmacological implications. Overall, DOACs represent a cost-effective alternative to vitamin K antagonists by reducing monitoring requirements and enhancing patient quality of life.

Keywords: direct oral anticoagulants, rivaroxaban, dabigatran, molecular interactions, ADME analysis, in silico modeling.

FUNDAMENTAL SCIENCES. REVIEWS / META-ANALYSES

Targeting Obesity at its Source: Cardiometabolic and Respiratory Benefits of Incretin-Based Therapies

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Background: Obesity is not limited to excessive weight gain but represents a systemic disease characterized by chronic low-grade inflammation driven by the release of pro-inflammatory cytokines. This inflammatory milieu increases the risk of cardiometabolic and respiratory disorders, including insulin resistance, type 2 diabetes, asthma, and sleep apnea. Incretin-based therapies have emerged as promising strategies by exerting cardio-protective effects, reducing oxidative stress, improving vascular function, modulating glucose homeostasis, and altering gut microbiota composition.

Objectives: To investigate how obesity establishes an inflammatory cross-talk among adipose tissue, cardiovascular and pulmonary systems, and the gut microbiota, and how incretin-based therapies modulate these shared mechanisms.

Methods and Materials: We conducted a comprehensive narrative literature review using PubMed, Scopus, and Web of Science databases over the period from January 2021 to March 2026. A total of 20 articles were included in the final analysis, including original research studies, review articles, and meta-analyses. Studies were selected based on their relevance to the following topics: Mechanisms linking obesity to systemic low-grade inflammation; Interactions between adipose tissue, cardiovascular, and pulmonary systems; Effects of incretin-based therapies (GLP-1 and GIP agonists) on immunometabolic pathways. Data were extracted and synthesized to provide an integrated overview of the cardiometabolic and respiratory effects of incretin-based therapies in obesity.

Results: Cardiovascular incretin effects via GLP-1R agonists reduce oxidative stress in vessels, inhibit gluconeogenesis and hepatic oxidative stress, increase cardiomyocyte activity, promote vasodilation, protect the cardiovascular system, and improve cardiac function, offering both direct and indirect cardiovascular protection. White adipose tissue: GLP-1 reduces macrophage infiltration and transforms M1 monocytes (pro- inflammatory) into M2 (anti-inflammatory), as well as decreases the expression of pro- inflammatory cytokines (TNF-α, IL-6) in white adipose tissue and endothelial tissue. GLP-1 agonist effects on pulmonary function are: directly: anti-inflammatory properties (reduction of eosinophils, decreased mucus production, limitation of oxidative stress, and decreased pro-inflammatory mediators), and they also promote bronchodilation and reduce pulmonary fibrosis.; indirectly: through weight loss, improving pulmonary function (CRF, FEV, TLC); microbiota: Obese individuals have a significantly lower Firmicutes/Bacteroidetes ratio, but one study showed that liraglutide increases microbiota diversity, notably Bacteroidetes, Bacilli, and Proteobacteria.

Conclusions: Obesity is not only a high BMI; it is associated with systemic inflammation, increasing the risk of developing diseases such as asthma, sleep apnea, and type 2 diabetes. Incretin-based therapies reduce this inflammation and exert beneficial effects on cardiac, pulmonary, adipose tissue, and gut microbiota function.

Keywords: Obesity, Incretins, Adipose tissue, Inflammation, Gut-lung axis, Microbiome

Beyond Ammonia: Re-engineering the Hepatic Encephalopathy Treatment Algorithm

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Background: Hepatic encephalopathy (HE) continues to be a significant complication of cirrhosis, with high recurrence rates despite standard treatment with rifaximin and lactulose. These results emphasize the necessity for specific molecular and interventional solutions in minimizing ammonia.

Objectives: This review evaluates emerging therapeutic trends in HE management, synthesizing clinical evidence and high-level meta-analyses published between 2024 and 2026.

Methods and Materials: A systematic literature search was conducted in PubMed, Web of Science, and the Cochrane Library, focusing on Phase II/III RCTs and meta-analyses. The strategy utilized MeSH Major Topic ([Majr]) and Topic (TS) strings targeting "novel," "emerging," and "future" therapies from 2023–2026.

Results: 11 studies were selected to show the trend toward a multi-organ therapeutic paradigm, which prioritizes microbiome management to limit the production and systemic absorption of neurotoxins. The use of Rifaquizinone, a dual-pharmacophore antibiotic with intestinal restriction, aims to eliminate Veillonellaceae strains, which are resistant to classic therapies. In restoring intestinal barrier integrity, the bacterial consortium VE303 was implemented, which facilitates durable microbial engraftment (56 days), stimulating endogenous production of short-chain fatty acids, such as acetate and butyrate ($P < 0.01$). The administration of Arginine Glutamate demonstrated an advantage in NCT-A normalization by facilitating dual-pathway detoxification. For acute episodes, it ensures the activation of the urea cycle and provision of the substrate for extrahepatic glutamine synthesis. LPCN 1148 increased the skeletal muscle index by 4.4 cm^2/m^2 in cirrhotic males, reducing HE frequency ($P = 0.02$). By increasing muscle mass, it prevents ammonia spikes that occur when muscle-derived glutamine is hydrolyzed in the gut. For patients with refractory HE, shunt embolization achieved a remission rate of 83.1% with MELD < 15 and a portal pressure gradient (PPG) < 12 mmHg, mitigating the risk of post-procedural variceal hemorrhage.

Conclusions: Recent therapies aim for HE management correlated with muscle mass, the intestinal microbiome, and interventional radiology. However, head-to-head studies between Rifaquizinone and Rifaximin, confirmation of microbial durability for VE303, and a generalization of evidence in sarcopenia are necessary.

Keywords: Hepatic Encephalopathy, Cirrhosis, Microbiome, Rifaquizinone, Sarcopenia

A Review of Blood-Brain Barrier Role in Tyrosine Kinase Inhibitors Penetration in Glioblastomas

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Background: Glioblastoma multiforme (GBM) is a malignant primary brain tumor known for the high aggressiveness. The actual standard of care represented by neurosurgery, radiotherapy and chemotherapy failed to improve the overall survival and quality of life of these patients. Therefore, the target of the specialists is to develop new, and effective treatment options. Tyrosine kinases (TKs) are enzymes capable to regulate important intracellular processes like: proliferation, differentiation, survival, apoptosis, and metabolism. Their abnormal activation and mutation were demonstrated in about 80% of GBM. Although, Tyrosine kinase small molecule inhibitors (TKIs) were already approved for other solid tumors treatment, GBM failed to respond to these therapeutic agents. Known for their heterogeneity, GBMs develop drug resistance mechanisms. Blood brain barrier (BBB) is known to be disrupted in GBMs and this limits the TKIs entrance into the tumor.

Objectives: To present the experimental bypass strategies that are being explored in the last years.

Methods and materials: I reviewed scientific articles available online in PubMed, MEDLINE, Embase, Web of Knowledge, Scopus, Google Scholar databases. Review articles, experimental articles and clinical trial articles were included. A literature review was conducted between January and February 2026. A total of 38 articles were included, consisting of 24 original research articles and 14 review articles.

Results: The most studied experimental by-pass strategies of BBB penetration are: focused ultrasound (FUS), convection-enhanced delivery (CED), or co-administration of efflux pump inhibitors. Nanotechnology is another method that can improve TKIs delivery by encapsulating them into nanoparticles (NPs).

Conclusions: GBMs treatment remains a challenge. Many molecularly targeted drugs developed, but their BBB penetration is still deficient. Current research tries to develop new technologies to help the traditional treatment methods.

Keywords: glioblastoma, tyrosine kinases inhibitors, blood-brain barrier

FUNDAMENTAL SCIENCES. CASE REPORTS

Successful Ostial RCA Intervention in Anomalous Coronary Anatomy: A Case Report

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Introduction: Ostial right coronary artery (RCA) lesions represent a challenging subset for percutaneous coronary intervention (PCI), particularly when heavily calcified. Anomalous origin of the left circumflex artery (CX) from the right coronary sinus or RCA with retroaortic course is the most common benign coronary anomaly (prevalence ~0.3%). This variant is generally not hemodynamically significant. However, it presents technical challenges during catheterization and carries risk for inadvertent occlusion during cardiac surgery.

Case Presentation: A 74-year-old patient was referred for coronary angiography following coronary CT angiography demonstrating 80% proximal RCA stenosis with a coronary artery calcium score of 1335 and anomalous CX origin from the RCA with retroaortic course. At presentation, the patient was asymptomatic at rest with stable vital signs (BP 130/70 mmHg, HR 65 bpm, SpO2 98%). Invasive coronary angiography confirmed heavily calcified ostial RCA subocclusion with anomalous CX origin (Type III anatomic variant). The patient successfully underwent PCI with drug-eluting stent implantation to the ostial RCA, achieving excellent angiographic results without residual stenosis or complications.

Discussion: European guidelines recommend CABG (Coronary artery bypass grafting) for complex multivessel disease with SYNTAX score >22, while PCI is reasonable for less complex coronary anatomy. The landmark SYNTAX trial demonstrated no significant difference in 10-year all-cause mortality between PCI and CABG (28% vs 24%, p=0.066). Importantly, in patients with heavily calcified coronary lesions, the mortality benefit of CABG over PCI diminishes significantly over time. For this elderly patient with isolated ostial RCA disease, PCI offered lower upfront procedural risk with comparable long-term outcomes. Furthermore, the anomalous CX origin would have required meticulous surgical identification and protection, substantially increasing operative complexity and risk.

Conclusion: This case demonstrates that percutaneous coronary intervention can be a safe and effective treatment for ostial RCA disease in patients with anomalous coronary anatomy. The presence of anomalous CX origin from the RCA would have substantially increased surgical complexity and risk of inadvertent coronary injury during bypass grafting. For this elderly patient with isolated ostial disease, PCI offered lower periprocedural risk while avoiding the technical challenges of protecting the anomalous vessel during cardiac surgery.

Keywords: ostial coronary lesion; anomalous coronary artery; percutaneous coronary intervention; drug-eluting stent;

Beyond the Microscope: Debunking Histological Myths and a Pediatric Oral Myopericytoma Case

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Introduction: Histology and cytology are essential in diagnostic pathology, linking microscopic findings to clinical decision-making. However, persistent misconceptions regarding their diagnostic value and limitations may influence clinical interpretation and pacient management.

Materials and Methods: A focused literature review was conducted using databases such as PubMed and Web of Science to identify studies addressing common misconceptions in histology and cytology, including stem cell immunogenicity, alcohol-induced neuronal loss, and the diagnostic sufficiency of cytology. Relevant articles were selected based on scientific validity and clinical relevance and were correlated with a documented rare case of pediatric oral myopericytoma.

Results: Clinical examination revealed a well-circumscribed, reddish maxillary nodule of approximately 2 cm in a 6-year-old patient, associated with bleeding during brushing. The mother of the patient noticed the lesion about a month before the initial examination. Following incisional biopsy of the lesion under general anesthesia, histological and immunohistochemical analysis confirmed the diagnosis, and complete surgical excision was performed.

Discussion: The findings demonstrate that commonly accepted assumptions may not reflect current evidence. Literature analysis revealed that stem cells can elicit immune responses, neuronal loss due to alcohol is region-specific, and cytology alone may be insufficient in complex diagnoses. These aspects were consistent with the diagnostic challenges encountered in the presented case, demonstrating that accurate microscopic evaluation is essential for guiding targeted therapies and personalized treatment strategies. Application of strict morphologic criteria and appropriately selective immunohistochemical markers will help in distinguishing MPC from its alike in the oral cavity.

Conclusions: Embracing evidence-based pathology and moving beyond historical diagnostic myths directly translates into safer, highly effective patient management, enabling successful conservative treatments like the local excision that resulted in an uneventful 8-year recurrence-free follow-up for this pediatric patient.

Keywords: Histology, Cytology, Myths, Myopericytoma, Pediatric.

CLINICAL SCIENCES

CLINICAL SCIENCES. ORIGINAL STUDIES

Cardiac MRI in Ischemic Heart Disease: Assessment of Post-Myocardial Infarction Remodeling

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Introduction: Myocardial infarction remains one of the leading causes of cardiovascular mortality worldwide and is frequently associated with ventricular remodeling that influences long-term prognosis. Cardiac magnetic resonance imaging (CMR) is the reference imaging technique for assessing myocardial viability. In addition, it allows the detection of a broad spectrum of post-infarction complications. We hypothesize that through this study we can assess myocardial viability through the transmural extent of infarction and to evaluate ventricular remodeling and post-infarction complications using cardiac MRI.

Materials and Methods: A retrospective observational study was conducted including 20 patients with a history of myocardial infarction who underwent CMR over a 6-month period in 2025 at the Imaging Department of University of Medicine and Pharmacy from Craiova. All examinations were performed using a 3-Tesla MRI system (Philips Ingenia), which provides high-resolution cardiac imaging and optimized acquisition times. Patients with previous myocardial infarction referred for cardiac MRI were included, while those with MRI contraindications or incomplete imaging datasets were excluded. CMR examinations are currently being analyzed to assess myocardial viability based on the transmural extent of the subendocardial enhancement on LGE sequence. Additional parameters being evaluated include ventricular wall thinning with associated regional wall motion abnormalities, intracavitary thrombus, ventricular aneurysm or pseudoaneurysm, and features of ischemic dilated cardiomyopathy.

Results: Data collection and image analysis are currently ongoing. Preliminary results show that our study includes both patients with preserved myocardial viability in the infarcted territory (less than 50%) as well as patients with non-viable myocardium (more than 50%). Also we demonstrate a wide spectrum of structural and functional ventricular changes in our cohort, including intraventricular thrombus, ventricular remodeling with myocardial wall thinning, regional wall motion abnormalities, as well as functional and structural changes such as reduced ejection fraction and enlarged cavities suggestive of progression toward dilated cardiomyopathy.

Conclusion: Cardiac magnetic resonance imaging provides a comprehensive evaluation of myocardial viability, ventricular remodeling, and post-infarction complications. The results of this study may contribute to a better understanding of structural changes following myocardial infarction and may assist in risk stratification and clinical management of affected patients.

Keywords: Cardiac Magnetic Resonance, Myocardial Infarction, Ventricular Remodeling, Myocardial Viability

Factors Influencing Recommendation of the Nasal Influenza Vaccine: A Cross-sectional Survey among Bulgarian Healthcare Workers

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Introduction: Nasal influenza vaccines offer a needle-free alternative that can improve vaccination coverage among the pediatric population. Healthcare workers (HCWs) can influence patient decisions, but few studies have examined factors for HCWs' likelihood of recommending the vaccine. This study explored how psychological antecedents, professional roles, and demographic characteristics predict HCWs' recommendations of the nasal influenza vaccine.

Materials and Methods: We performed secondary analysis from a cross-sectional survey dataset among 788 Bulgarian HCWs, including physicians (57%), nurses (27%), and auxiliary HCWs (16%). The main outcome was whether participants had previously recommended the nasal influenza vaccine. We investigated the 7C scale antecedents, and other factors.

Results: A total of 37% of HCWs reported recommending the nasal vaccine, while 32.7% expressed hesitancy and 23% were not aware of its existence. Most participants (58.4%) worked with influenza patients. From HCWs who recommended the vaccine about 64% were vaccinated against influenza, whereas 32% of non-recommenders reported being vaccinated. After adjusting for covariates, higher scores on Complacency (adjusted OR 1.13, 95% CI: 1.03–1.24), Constraints (aOR 1.14, 1.03–1.27), and Collective Responsibility (aOR 1.20, 1.06–1.36) were associated with increased odds of recommending the nasal vaccine. Compared with physicians, nurses (aOR 0.36, 0.23–0.58) and Auxiliary HCWs (OR 0.52, 0.32–0.85) were significantly less likely to recommend the nasal vaccine. Men were also less likely than women to recommend it (OR 0.5, 0.33–0.75).

Conclusions: Complacency (higher perceived infection risk), Constraints (lower perceived barriers), and a sense of Collective Responsibility predicted recommendations for the nasal influenza vaccine among Bulgarian HCWs. Being a man and non-physician HCW contributed to lower support. We need additional education to address barriers and promote collective responsibility so that more HCWs may recommend the nasal vaccine for children.

Keywords: Nasal influenza vaccine, Healthcare workers

Stroke: A "Hidden" Companion of Chronic Rhinosinusitis

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Background: The primary complaints of patients with chronic rhinosinusitis (CRS) include persistent nasal obstruction, facial pain, postnasal drip, and olfactory dysfunction. However, a focus of chronic inflammation in the paranasal sinuses may be associated with more severe conditions, specifically acute cerebrovascular accidents (ACVA). Recent observations suggest a potential correlation between CRS and stroke. The underlying mechanism may involve a persistent systemic inflammatory response originating from the sinuses, which could contribute to endothelial dysfunction and increase cerebrovascular vulnerability.

Objectives: To determine the frequency of radiological signs of chronic inflammatory paranasal sinus involvement in patients with acute stroke.

Methods: A retrospective analysis was conducted on brain computed tomography (CT) scans of 254 patients with acute stroke treated at the "Central City Hospital" (Chernivtsi) over a four-month period.

Results: Radiological signs of chronic paranasal sinus involvement were identified in 77 patients (30.31%), with a male-to-female ratio of 61% (47 cases) to 39% (30 cases). The mean patient age was 60.0 years. In male patients with CRS, strokes occurred earlier (mean age 55.2 years), whereas in females, they occurred significantly later (mean age 71.3 years). In patients without radiological signs of CRS, the gender distribution was reversed: women predominated (66%, n=117), while men were less affected (34%). The mean age of this group was more than 10 years higher than that of the CRS group (71.7 years vs. 60.0 years). Notably, strokes in men without CRS developed nearly 20 years later compared to those with CRS (70.5 years vs. 55.2 years). No such significant age gap was observed in female patients (72.3 years vs. 71.3 years). The maxillary sinuses were most frequently affected (66.2%), followed by the ethmoid (20.8%) and sphenoid sinuses (1.3%). Chronic polysinusitis was diagnosed in 11.7% of patients. Furthermore, an odontogenic origin of maxillary sinusitis predominated (44.2%).

Conclusions: Radiological signs of chronic rhinosinusitis are present in approximately one out of every three patients with acute stroke. Given the retrospective design of our study, these findings demonstrate a strong correlation - rather than direct causation - between chronic paranasal sinus inflammation and acute stroke. Notably, this association is linked to a significantly earlier onset of stroke, particularly in men in their sixth decade of life.

Keywords: Chronic rhinosinusitis, Stroke, Risk factors, Computed tomography, Gender differences.

Pedal Acceleration Time as a Reliable Tool for Evaluating Critical Limb Ischemia in Diabetic Patients with Non-Compressible Arteries

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Introduction: Pedal Acceleration Time (PAT) is a highly dependable, non-invasive Doppler ultrasound method for assessing critical limb ischemia (CLI) in diabetic patients [1]. It is particularly useful when non-compressible vessels render ankle-brachial index (ABI) measurements unreliable [2].Evaluation of the diagnostic and predictive value of PAT measured at rest, as well as its correlation with other indicators of ischemia severity, in diabetic patients with chronic limb-threatening ischemia (CLI) secondary to infrainguinal occlusive-stenotic lesions.

Objectives: The aim of the study was to evaluate the diagnostic and predictive value of pedal acceleration time measured at rest and its correlation with indicators of ischemia severity in diabetic patients with chronic limb-threatening ischemia.

Material and methods: This was a single-center observational study on a cohort of 43 patients (45 limbs) pedal acceleration time and ankle-brachial index were performed. Additionally, Wound, Ischemia, and foot Infection (WIfI) classification and Global Limb Anatomic Staging System (GLASS) stages were recorded. Of the assessed limbs, 10 (22.2%) fell into Rutherford category 5, while 5 (11.1%) were categorized as Rutherford category 6.

Results: The mean age of the study population was 68 ± 12 years. Male patients represented most cases (38; 88.3%), while females accounted for 5 (11.7%). A moderate Pearson correlation was found between PAT and both WIfI ($r = 0.61$) classifications, GLASS ($r = 0.52$), whereas a strong positive correlation was observed with ABI ($r = 0.84$). In 15 patients (34.8%) with diabetes mellitus, ABI assessment was not feasible because of pronounced arterial calcification that rendered vessels non-compressible. However, PAT still provided an objective measure of CLI severity. The mean preoperative PAT was higher in limbs with unsuccessful revascularization ($n = 7$) compared with those with successful. Overall, postoperative PAT values showed a significant decrease (94.8 ± 20.8ms vs. 187.7 ± 45.4 ms; $p < 0.0001$).

Conclusion: PAT reliably quantified the severity of chronic limb-threatening ischemia and correlated with ABI, GLASS, and WIfI, even in heavily calcified vessels where ABI could not be measured. The significant reduction in PAT after revascularization highlights its potential as a simple, objective and reproducible tool for diagnosis procedural assessment, and postoperative follow-up in patients with CLTI.

Risk Management in the Nursing Profession

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Introduction: Medical errors represent a major challenge for patient safety and the quality of healthcare. They may result from technical, organizational, and human factors, and can lead to significant clinical and economic consequences. In addition, healthcare professionals involved in such events may experience considerable psychological distress.

Objectives: This study aimed to explore risk management practices and perceptions among nursing staff in Belgian hospitals.

Methods and Materials: A qualitative study was conducted using eight semi-structured, face-to-face interviews with healthcare professionals working in both university and non-university hospitals in Belgium. Participants included nurses, head nurses, and nurse managers, ensuring a diversity of perspectives. The interviews focused on perceived risk factors, error prevention strategies, communication practices, and organizational constraints. Data were analyzed using a thematic qualitative approach, including coding, categorization, and identification of recurring themes.

Results: Unsafe medication practices were identified, particularly the advance preparation of medications, which contradicts safety guidelines recommending preparation close to the time of administration. Communication gaps emerged as a major issue. The SBAR (Situation, Background, Assessment, Recommendation) method was largely unknown or underutilized, despite evidence that communication failures contribute to a significant proportion of adverse events. Underreporting of medical errors was frequently observed, mainly due to fear of sanctions. Some organizational interventions were identified, such as reducing interruptions (e.g., centralizing phone calls), which were perceived as effective in improving patient safety.

Conclusion: Effective risk management requires a system-based approach rather than focusing on individual blame. Promoting a culture of safety, improving communication through structured tools such as SBAR, and addressing organizational constraints are essential. These findings highlight the need for comprehensive strategies combining training, system redesign, and supportive management to reduce errors and enhance patient safety.

Keywords: error management, communication, prevention, burnout, patient safety, quality of care

Impact of Renal Function on Thrombotic and Bleeding Risk in Atrial Fibrillation and Chronic Kidney Disease

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Introduction: Atrial fibrillation (AF) is the most prevalent cardiac arrhythmia and occurs in patients with chronic kidney disease (CKD) at a rate 10-20 times higher than in the general population. The coexistence of AF and CKD causes complex changes in hemostasis, simultaneously increasing the risk of thrombosis and hemorrhage. The purpose of this study was to find a correlation between the stage of kidney impairment and the tendency towards thrombotic and hemorrhagic complications.

Methods and Materials: This observational study included 108 patients (45% male, 55% female) with mean age 75.4 ± 8.9 years with permanent atrial fibrillation and chronic kidney disease hospitalized in the last 5 years. Demographic, clinical and laboratory data were collected from patient medical records. Patients were stratified into four groups according to glomerular filtration rate (eGFR): group A (<30 ml/min/1.73 m²), group B (30-59 ml/min/1.73 m²), group C (60-89 ml/min/1.73 m²) and group D (>90 ml/min/1.73 m²). Thromboembolic and hemorrhagic risks were assessed using CHA_2DS_2-VA, R_2CHADS_2, respectively HAS-BLED scores.

Results: Statistically significant differences were observed between groups A and D and between groups B and D for both the CHA_2DS_2-VA (4.80±1.56 vs 3.18±1.16, respectively 4.78±1.03 vs 3.18±1.16; p=0.001) and R_2CHADS_2 (4.91±1.44 vs 1.90 ±0.94, respectively 4.87±1.00 vs 1.90 ±0.94; p=0.0001) scores. In addition, the CHA_2DS_2-VA score provided a significant result for group C and D (5.33±1.63 vs 3.18±1.16; p=0.02). The CHA_2DS_2-VA and R_2CHADS_2 scores showed no statistically significant differences in thromboembolic risk assessment. The HAS-BLED score was significantly higher in patients with severe renal dysfunction (group A) compared with groups B (2.44±1.02 vs 1.72±0.84; p=0.0009) and D (2.44±1.02 vs 1.54±0.82; p=0.007).

Discussion: Our findings indicate that declining renal function is associated with increased thromboembolic and hemorrhagic risk in patients with atrial fibrillation. The significantly higher CHA_2DS_2-VA and R_2CHADS_2 scores observed in patients with reduced eGFR underscore the role of renal impairment as a key factor to thromboembolic burden. In addition, the elevated HAS-BLED scores in patients with severe renal dysfunction highlights the parallel increase in bleeding risk.

Conclusion: Patients with impaired renal function exhibit higher thromboembolic and hemorrhagic risk. Stratification according to glomerular filtration rate provides valuable information for invidualized risk assessment and may guide optimal anticoagulation management in this high-risk population.

Keywords: atrial fibrillation, chronic kidney disease, thromboembolic risk, hemorrhagic risk

NT-proBNP Levels and Their Association with Severity Parameters in Acute Heart Failure

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Introduction: NT-proBNP is a well-established biomarker used for the diagnosis and risk stratification of acute heart failure (AHF). This study aimed to evaluate the relationship between admission NT-proBNP levels and left ventricular ejection fraction (LVEF), as well as the association between NT-proBNP levels and length of hospital stay.

Methods and Materials: A retrospective observational study was conducted over a 5-month period at the Emergency Clinical Hospital "Sf Pantelimon" Bucharest, on a cohort of 315 patients aged between 25 and 95 years admitted with AHF. Blood samples collected at presentation were used to measure NT-proBNP levels, while echocardiographic evaluation was performed to assess the left ventricular ejection fraction (LVEF). We evaluated patients with elevated NT-proBNP levels and reduced LVEF to determine the severity of AHF according to the NYHA classification and to assess the length of hospital stay. A p-value < 0.05 was considered statistically significant.

Results: NT-proBNP was a strong predictor of clinical outcomes during hospitalization. Elevated NT-proBNP levels were significantly associated with longer hospital stay ($p < 0.001$). Furthermore, an inverse relationship between NT-proBNP and LVEF was observed. Patients with severely reduced LVEF (< 30%) had the highest mean NT-proBNP levels (17,679 pg/mL), followed by those with LVEF 30–35% (13,353 pg/mL), LVEF 40-50% (8,744 pg/mL) and LVEF > 50% (6,090 pg/mL), demonstrating a progressive decrease in biomarker levels with improving ventricular function. Discussion: These results underscore that admission NT-proBNP is not only a diagnostic tool but also a precise indicator of systolic dysfunction severity. The correlation with hospitalization length confirms its utility in predicting clinical burden and optimizing resource management.

Conclusion: This study confirms that NT-proBNP levels reflect both cardiac function and patient prognosis. Higher NT-proBNP levels were associated with lower LVEF, with the highest values observed in patients with severely reduced LVEF (<30%). Elevated NT-proBNP levels were also associated with longer hospitalization ($p<0.001$), supporting its role as an important prognostic marker in AHF.

Keywords: NT-proBNP, mortality, acute heart failure, left ventricular ejection fraction, hospitalization

Kappa Free Light Chains – A Quantitative Alternative to Oligoclonal Bands in Multiple Sclerosis

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Introduction: Multiple sclerosis (MS) is a demyelinating disease of the central nervous system characterized by intrathecal immunoglobulin synthesis. Oligoclonal bands (OCB) in cerebrospinal fluid (CSF) have long been used as a diagnostic marker of this process. However, OCB detection is qualitative, requires specialized laboratories, and may delay diagnosis. These limitations led to the inclusion of kappa free light chains (kFLC) as a biomarker of intrathecal immunoglobulin synthesis in the 2024 revision of the McDonald criteria. This study aimed to evaluate the diagnostic value of the kFLC index compared with OCB in patients with suspected MS.

Materials and Methods: This cross-sectional study included 90 patients who underwent lumbar puncture between 2024 and 2025 at the Clinic for Neurology, Military Medical Academy (MMA), Belgrade. MS diagnosis was established according to the 2017 McDonald criteria. The MS group (n = 35) was compared with controls (n = 55) with non-inflammatory neurological disorders. Patients with systemic autoimmune or infectious conditions were excluded. Paired CSF and serum samples were obtained simultaneously, at the Institute of Biochemistry, MMA. kFLC levels were measured by nephelometry, and the kFLC index was calculated. OCB were detected by isoelectric focusing with immunoblotting; positivity was defined as ≥2 CSF-restricted bands. Diagnostic performance was assessed using ROC analysis.

Results: The kFLC index was significantly higher in the MS group compared to controls (median 16.78, IQR 53.35 vs. 2.58, IQR 5.47; $p < 0.001$). OCB positivity was more frequent in MS patients ($p = 0.003$). ROC analysis demonstrated good diagnostic accuracy of the kFLC index (AUC = 0.78; 95% CI: 0.65–0.91), slightly higher than OCB (AUC = 0.74). The optimal kFLC cutoff value was 5.1, with 80% sensitivity and 69% specificity.

Conclusion: The kFLC index demonstrated diagnostic performance comparable to OCB in suspected MS. As a quantitative and cost-effective marker with faster availability, the kFLC index may support earlier diagnostic evaluation. These findings suggest that kFLC could serve as a complementary biomarker in MS diagnostics. However, the results should be interpreted in light of the relatively small sample size and single-center design, and further validation in larger cohorts is warranted.

Keywords: Biomarkers; Cerebrospinal Fluid; Immunoglobulin Light Chains; Multiple Sclerosis; Oligoclonal Bands

Continuous Glucose Monitoring – A Modern Tool for the Management of Diabetic Patients in Primary Care: A Narrative Review

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Introduction: Continuous glucose monitoring (CGM) provides a dynamic assessment of glycemic variability that is not fully captured by glycated hemoglobin (HbA1c), potentially revealing clinically relevant fluctuations in glucose levels that may influence therapeutic decisions. The aim of this study was to evaluate whether CGM-derived parameters provide additional actionable information beyond HbA1c and support therapeutic optimization in primary care.

Methods and Materials: This study was designed as a pilot observational study conducted in a primary care setting, including a patient diagnosed with type 2 diabetes mellitus. Continuous glucose monitoring was performed over a 14-day period, with a sensor usage of at least 70%, in accordance with current clinical recommendations. Interstitial glucose levels were recorded at regular intervals (approximately every 5–15 minutes), generating multiple daily measurements. Data were analyzed using the ambulatory glucose profile (AGP) to assess glycemic patterns and variability. The evaluated parameters included Time in Range (TIR, 70–180 mg/dL), Time Above Range (TAR), Time Below Range (TBR), mean glucose, and glycemic variability assessed by coefficient of variation. Clinical parameters, including HbA1c values and ongoing antidiabetic treatment, were recorded at baseline and after therapeutic adjustment. Therapeutic decisions were guided by CGM-derived patterns identified during data interpretation.

Results: At baseline, the patient presented poor glycemic control, with an HbA1c value of 11.2% under treatment with metformin, sulfonylurea, and basal insulin. CGM data revealed significant glycemic variability, characterized by frequent hyperglycemic excursions, reduced time in target range, and identifiable daily glycemic patterns. Based on these findings, therapeutic adjustments were implemented, including intensification of insulin therapy and addition of dapagliflozin and sitagliptin. Following intervention, HbA1c decreased to 7.8%, accompanied by improvement in glycemic profile, increased Time in Range, and reduction of glycemic variability.

Conclusion: Continuous glucose monitoring enabled the identification of clinically relevant glycemic patterns not evident from HbA1c alone and supported targeted and individualized therapeutic interventions. Even in a pilot setting with a limited number of patients, CGM proved to be a valuable tool in primary care, contributing to improved metabolic control and more precise diabetes management.

Keywords: diabetes mellitus; continuous glucose monitoring; time in range; glycemic variability; primary care

90% Warning: How Admission Hypoxemia and NIMV Needs Dictate Heart Failure Survival

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Introduction: Acute Heart Failure (AHF) is a leading cause of hospitalization and mortality. Hypoxemia reflects the severity of pulmonary congestion and respiratory compromise in these patients and may influence the need for Non-Invasive Mechanical Ventilation (NIMV). This study aimed to evaluate the correlation between arterial oxygen saturation (SaO_2), the requirement for non-invasive ventilatory support, and in-hospital mortality, assessing the potential prognostic value of SaO_2 in patients with AHF.

Methods and materials: We conducted a retrospective study over a 6-month period, analysing a cohort of 353 patients admitted with AHF at the Clinical Emergency Hospital `Sf. Pantelimon` Bucharest. The study aimed to identify statistically significant differences in clinical, biological, and echocardiographic parameters in relation to the severity of heart failure and the need for advanced therapeutic support. In the analysis of prognostic markers, we evaluated the correlation between low SaO_2 at admission and the requirement for NIMV, as well as its relationship with in-hospital mortality. A p-value of < 0.05 was considered statistically significant.

Results: The analysis showed a statistically significant correlation between admission SaO_2 levels and the requirement for NIMV ($p<0.001$). Patients who did not require NIMV had a higher mean SaO_2 at admission (95.8%), compared to those requiring NIMV (92.2%). However, SaO_2 levels were not significantly associated with in-hospital mortality ($p=0.891$). These findings highlight as a critical triage tool for predicting immediate ventilatory needs (NIMV). However, the lack of correlation with mortality suggests that once respiratory support is initiated, the initial oxygenation deficit does not independently dictate the final clinical outcome, which may be more influenced by comorbidities or disease progression.

Conclusions: Initial oxygen saturation may be a useful bedside marker for assessing the severity of respiratory compromise in patients with AHF. Lower SaO_2 levels at presentation were associated with an increased need for NIMV ($p<0.001$). However, admission SaO_2 was not significantly associated with in-hospital mortality. These findings suggest that while SaO_2 may be useful for early triage and identifyingpatients requiring ventilatory support, other hemodynamic or biological factors may play a more important role in determining overall prognosis.

Keywords: SaO_2, mortality, Non-Invasive Mechanical Ventilation (NIMV)

Hyponatremia as a Prognostic Marker in Acute Heart Failure

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Introduction: Hyponatremia, defined as a serum sodium concentration below 135 mmol/L, is one of the most common electrolyte disorders observed in patients hospitalized for acute heart failure (AHF). The aim of this study is to evaluate whether sodium levels at admission can predict in-hospital mortality and the duration of hospitalization.

Methods and Materials: A retrospective observational study was conducted over a five-month period at Emergency Clinical Hospital "Sf. Pantelimon" Bucharest, involving 365 patients aged 25-95 years old hospitalized with acute heart failure. Serum sodium levels were measured at admission. The primary parameters were in-hospital mortality and the total duration of hospitalization (days). Statistical analysis was performed to compare sodium levels between survivors and non-survivors and to evaluate clinical outcomes. A p value < 0.05 was considered statistically significant.

Results: Analysis showed that 20% of patients presented with hyponatremia at admission. The mean age of the hyponatremia group (76 years) was comparable to that of the reference group (75 years). However, significant differences in clinical outcomes were observed. In-hospital mortality was higher among patients with hyponatremia (12.12%) compared with the reference group (6.57%). Sodium levels at admission were significantly associated with in-hospital mortality ($p = 0.009$). The mean sodium level among survivors was 139 mEq/L, compared to 136 mEq/L for non-survivors. Patients with sodium levels in the low-normal range (135–137 mEq/L) had a much higher risk than those with levels of 139–141 mEq/L. Additionally, sodium levels were a significant predictor for hospital length of stay ($p = 0.043$), with lower levels at presentation associated with longer hospitalization.
These results highlight that hyponatremia is not merely a biochemical marker but a clinical indicator of disease severity in AHF, necessitating early identification to optimize patient triage and management.

Conclusion: During the five-month observation period, patients with low sodium levels had a significant association with poor clinical outcomes. The significant associations observed with both in-hospital mortality ($p = 0.009$) and length of hospital stay ($p = 0.043$) support serum sodium as an important prognostic marker in acute heart failure.

Lactate and Respiratory Failure in Acute Heart Failure

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Introduction: Acute Heart Failure (AHF) represents a significant cause of hospitalization and in-hospital mortality (IHM). Elevated lactate levels at admission may reflect the severity of hemodynamic compromise. Therefore, evaluating the association between admission lactate levels, the need for non-invasive mechanical ventilation (NIMV) and IHM may provide additional prognostic insight in patients with AHF.

Methods and Materials: A retrospective observational study was conducted over a 5-month period, including 252 patients (aged 25 - 95 years) admitted with Acute Heart Failure (AHF) at the Emergency Clinical Hospital "Sf. Pantelimon” Bucharest. Blood samples collected at admission were used to measure arterial lactate levels, while the need for NIMV was assessed as a marker of clinical severity. Statistical analysis was performed to evaluate the association between lactate levels and the requirement for NIMV, as well as IHM. P-values < 0.05 were considered statistically significant.

Results: Patients requiring NIMV had higher admission lactate levels compared to those without ventilatory support (2.48 mmol/L vs. 1.19 mmol/L), with a statistically significant difference ($p=0.045$). Non-survivors also presented higher mean lactate levels than survivors (2.71 mmol/L vs. 1.98 mmol/L). However, the association between admission lactate and in-hospital mortality (IHM) was not statistically significant ($p=0.55$). In Acute Heart Failure (AHF), elevated admission lactate reflects hemodynamic compromise and systemic hypoperfusion. These results suggest that lactate is a more sensitive indicator of acute pulmonary congestion (requiring NIMV) than a direct predictor of IHM, serving as a key tool for early risk stratification.

Conclusion: Patients with Acute Heart Failure and elevated admission lactate levels showed a significantly higher requirement for NIMV in the analysed cohort ($p=0.045$). Although the correlation between lactate levels and IHM did not reach statistical significance, higher mean values were observed among non-survivors, indicating a trend toward increased severity. These findings suggest that admission lactate may serve as a valuable clinical marker for identifying patients at risk of requiring NIMV, with potential implications for early ventilatory support and hemodynamic management.

Keywords: Lactate, Acute Heart Failure (AHF), mortality, Non-Invasive Mechanical Ventilation (NIMV)

Exploring Maternal Perceptions during Pregnancy: Positive and Negative Experiences of Bodily Changes and Physical Symptoms

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Introduction: During the gestational period, a woman undergoes various physical and physiological adaptations that support fetal development and sustain the pregnancy to full term, often accompanied by noticeable differences in physical appearance. The aim of this study is to explore pregnant women's perceptions of the physiological symptoms and bodily adaptations experienced during pregnancy.

Methods and Materials: This study was conducted from November 2023 to July 2024 using a questionnaire-based approach developed on Google Forms and Jotform platforms. Data were collected with the Pregnancy Experience Scale, a summative four-point Likert scale. The questionnaire was administered to 109 pregnant women aged 18 and older. Data analysis was performed using descriptive statistical methods.

Results: The questionnaire was used to collect information on both positive and negative experiences during pregnancy. The results show a predominantly positive emotional adaptation to the pregnancy experience in relation to bodily changes (90.82% not at all / little negative feelings), physiological discomfort (84.26% not at all / little negative feelings) and associated physical symptoms (88.99% not at all / little negative feelings).

Conclusion: Pregnancy-related body changes, common discomforts, and concerns about symptoms can act as stressors for both the mother and fetus. Understanding the physical changes and physiological symptoms associated with pregnancy can help reduce stress and anxiety during pregnancy. By maintaining a positive perception, a pregnant woman can have a favorable perinatal experience.

Keywords: pregnancy, body changes, physical symptoms, discomfort, stress

CLINICAL SCIENCES. REVIEWS / META-ANALYSES

Is Self-Diagnosis in Psychiatry a Risk Factor for Misidentification or a Bridge to Earlier and Better Care?

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Background: As psychiatric information spreads rapidly on social media, more people are diagnosing themselves with mental disorders, creating two opposing views. Some clinicians warn that misinformation may lead to over-identification, while others argue that self-diagnosis helps individuals recognize symptoms early and seek professional help. Despite this debate, evidence on the clinical accuracy of self-diagnosis remains limited.

Objectives: This review aimed to determine whether psychiatric self-diagnosis represents misidentification or an early step in contemporary mental health help-seeking.

Methods: This review followed PRISMA guidelines. We searched PubMed, PsycINFO, and Scopus for studies published up to January 2026 using terms related to self-diagnosis, social media, and help-seeking behavior. From approximately 500 screened records, 11 empirical studies were included after dual-reviewer title and abstract screening (A. Rhossoon, validated by R. Bentegeac). Risk of bias was assessed across five dimensions using a 5-point Likert scale (1 = low risk, 5 = high risk). Findings were synthesized narratively due to study heterogeneity.

Results: Risk of bias scores ranged from 2 to 4. Some evidence suggests acceptable accuracy in internalizing disorders: in one clinical sample (n = 235), 86% of self-reported diagnoses were confirmed, with specificity >90% and PPV >0.60; however, sensitivity remained low (0.07–0.59). In large online samples, self-identified individuals reported symptom severity comparable to formally diagnosed patients, though self-selection bias limits these findings. Social media appeared to facilitate help-seeking: in one study (n = 57), 71% of first-time consultees presented a self-proposed diagnosis after consuming online content. Prior specialist contact was the strongest predictor of accurate self-assessment (adjusted OR = 2.0, n = 474). These findings must be weighed against evidence that algorithmic amplification may reinforce diagnostic identities disconnected from clinical reality, particularly for complex presentations such as Dissociative Identity Disorder.

Conclusion: Self-diagnosis may reflect genuine psychopathology in common psychiatric disorders, but patients' accuracy varies across populations and disorder types. The evidence neither confirms systematic misidentification nor dismisses concerns about diagnostic inflation. Current results are heterogeneous, firm conclusions remain difficult and more research is needed.

Keywords: Self-diagnosis, Diagnostic accuracy, mental disorders, clinical assessment, Digital health

From Gut to Mind: Pharmacological Mechanisms of Psychobiotics in Mental Health Disorders

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Background: Recently, research on the microbiota-gut-brain axis has highlighted the major role gut microbiota has in regulating neuropsychological functions. Defined as live microorganisms or specific compounds that provide benefits on mental health, psychobiotics have gained increased interest in the context of mental conditions such as depression, anxiety, and stress-related disorders. These can influence the central nervous system through neurochemical, immunological, and metabolic mechanisms, showing significant potential as a therapeutic strategy.

Objectives: This study aims to explore the pharmacological mechanisms by which psychobiotics act on the central nervous system and to identify the clinical implications of their use in treating mental health disorders.

Materials and methods: For this study, data from PubMed and Google Scholar databases were selected, focusing on experimental studies, randomized clinical trials, and meta-analyses investigating the effects of psychobiotics on mental diseases and biological mechanisms involved in the gut–brain axis.

Results: The analyzed data indicate that certain bacterial strains, especially the Lactobacillus and Bifidobacterium genera, can modulate the production of neurotransmitters such as serotonin, dopamine, and gamma-aminobutyric acid (GABA). In addition, psychobiotics can reduce systemic inflammation, influence the hypothalamic-pituitary-adrenal axis, and improve intestinal barrier integrity. Moderate improvements in anxiety or depression were reported in patients who received this treatment compared to those who were given a placebo, suggesting a potential complementary therapeutic role.

Conclusions: In conclusion, psychobiotics seem to become a new emerging integrative treatment for different mental health disorders because of their capacity to modulate the microbiota-gut-brain axis through complex pharmacological pathways. Even though current results are encouraging, several additional clinical trials are mandatory to thoroughly confirm the effectiveness and safety regarding clinical use of psychobiotics.

Keywords: Gut Microbiota, Depression, Anxiety, Psychobiotics

CLINICAL SCIENCES. CASE REPORTS

Integrating Clinical and Molecular Findings in X-Linked Alport Synddrome: A Case Study

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Introduction: Alport syndrome is a hereditary glomerulopathy caused by pathogenic variants in type IV collagen genes, leading to progressive kidney disease, typically associated with sensorineural hearing loss, and ocular abnormalities.

Case Presentation: We report an 18-year-old male with recurrent urinary tract infections, chronic glomerulonephritis, persistent proteinuria and hematuria, left-sided sensorineural hypoacusis, and mild refractive errors. He underwent comprehensive clinical assessment and a next-generation sequencing panel for hereditary nephropathies, which identified hemizygosity for *COL4A5* c.3790G>T, p.(Gly1264Cys). Consistent with this finding, his family history includes an affected brother and a maternal uncle with hearing loss and end-stage renal disease requiring transplantation.

Discussion: The identified *COL4A5* variant is classified as likely pathogenic and is consistent with X-linked Alport syndrome. The molecular finding correlates with the patient's renal, auditory, and ocular manifestations. He has transitioned from pediatric to adult care and is currently monitored through a multidisciplinary team in nephrology, audiology, and ophthalmology.

Conclusion: Molecular confirmation of X-linked Alport syndrome highlights the value of integrating genetic testing with early family evaluation to improve diagnosis and guide management in hereditary nephropathies.

Keywords: Alport syndrome; X-linked; *COL4A5*; hereditary glomerulopathy.

Aknnowledgements: We are grateful to the patient and family for their cooperation.

Divergent Fates: The Post-COVID Fibrosis Spectrum — A Case Series

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Introduction: COVID-19, caused by the SARS-CoV-2 virus, ranges from mild infection to critical illness, characterised by hypoxemic respiratory failure with problematic complications, especially in vulnerable populations. Pulmonary fibrosis, exemplified by Idiopathic Pulmonary Fibrosis (IPF), is a chronic respiratory disorder defined by progressive lung scarring and a steady loss of function. When combined with COVID-19, these patients face a significantly worse prognosis, with mortality rates reaching approximately 34%. This case series reports the clinical course, diagnostic strategies, and the decision to initiate antifibrotic therapy in patients with post-COVID pulmonary fibrosis.

Case Presentation: Two male patients (67-69 years old), non-smokers, both with a history of severe SARS-CoV-2 infection in 2021, were admitted to the hospital for presenting progressive decline in exercise tolerance and dyspnea on minimal exertion, accompanied by persistent dry cough and marked asthenia. Paraclinical investigations revealed a restrictive ventilatory defect (FVC 57–59%) and impaired gas exchange (DLCO 43–56%). Sequential CT imaging documented a transition from ground-glass opacities to a fibrotic Non-Specific Interstitial Pneumonia (NSIP) pattern for the 69-year-old patient, characterised by persistent interstitial thickening. Bronchoscopic evaluation showed a non-specific, macrophage-predominant lavage, while histopathological analysis confirmed the presence of organised connective tissue, establishing the fibrotic remodelling without evidence of secondary infections or underlying rheumatological triggers for both patients.

Discussion: Criteria for antifibrotic therapy initiation in the progressive case were defined by a relative FVC decline of>5% and worsening exertional hypoxia over 6 months despite optimal immunosuppressive therapy. The divergence between these two patients—where one required Nintedanib for Progressive Fibrosing Interstitial Lung Disease (PF-ILD) while the other stabilised—highlights that post-COVID fibrosis is a spectrum rather than a uniform diagnosis. Post-COVID fibrosis requires a precise medical approach. Longitudinal functional monitoring is the essential "gatekeeper" for therapy: it ensures that aggressive antifibrotics are reserved for those with a confirmed progressive phenotype (PF-ILD), effectively slowing decline while sparing stable patients from unnecessary medication risks.

Keywords: SARS-CoV-2, Pulmonary fibrosis, NSIP, PF-ILD, Antifibrotic Therapy

Dual Long-Acting Injectable Antipsychotic Therapy in Treatment-Resistant Schizophrenia – A Case Report

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Introduction: Treatment-resistant schizophrenia is defined as persistent psychopathology and functional impairment despite adequate treatment with at least two different antipsychotics administered for a sufficient duration, at therapeutic doses with confirmed adherence. On the other hand, inadequate antipsychotic treatment increases the risk of psychotic relapses, criminality, and suicidal behavior. This case highlights how persistent medication nonadherence may lead clinicians to consider experimental treatment approaches.

Case presentation: A 30-year-old man with schizophrenia diagnosed at age 23 was brought to the psychiatric hospital by his family due to odd behavior and worsening negative symptomatology over the past year. Functional impairment was significant, with progressive social isolation and avolition. The patient had been followed at the psychiatric service since 2018 after an aggressive outburst toward family members and was receiving a combination treatment with an LAI antipsychotic (paliperidone palmitate) and oral antipsychotics, with poor adherence to the oral medication. On examination, the patient exhibits poor hygiene, displays psychomotor agitation, has a blunted affect, responds tangentially, but is cooperative. The eye contact is intermittent, displaying gestures indicative of complex visual hallucinations. Verbal contact was maintained with difficulty due to ideational derailment and telegraphic responses. The patient was hospitalized for 62 days, during which treatment adherence and response to various antipsychotics were carefully monitored, ruling out potential pseudo-resistance. Doses of haloperidol, olanzapine, cariprazine, and amisulpride were gradually titrated over more than 6 weeks with limited clinical response, completing the DSM-5 diagnostic criteria for treatment-resistant schizophrenia. Head CT was unremarkable, making an organic cause for the poor treatment response unlikely.
After careful consideration of the risks and benefits, the patient's parents gave their consent for an experimental dual LAI antipsychotics trial. The final treatment plan was an association of paliperidone palmitate (Trevicta® 525mg), aripiprazole (Abilify Maintena® 400mg), clozapine, and risperidone. During the one-month follow-up, the patient showed improved adherence to the new treatment; however, with no significant amelioration and no reported side-effects.

Conclusion: Treatment-resistant schizophrenia remains clinically challenging, particularly in the context of poor treatment adherence, calling for individualized management strategies. Dual LAI antipsychotic therapy may represent a promising alternative in this sense, though evidence remains limited.

Key Words: Treatment-resistant schizophrenia; Medication nonadherence; Long-acting injectable antipsychotic; Experimental treatment approach; Individualized management strategies

Paraneoplastic Urticaria Unmasking Prostate Cancer: A Case Report

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Introduction: Paraneoplastic cutaneous manifestations may precede the diagnosis of internal malignancies and represent important diagnostic clues. Urticaria is usually associated with allergic, autoimmune, or infectious triggers, while its occurrence as a paraneoplastic syndrome in solid tumors is rare. The underlying mechanisms remain incompletely understood but are thought to involve tumor-related immune dysregulation, cytokine release, or IgE-mediated pathways. Recognizing atypical, persistent, or treatment-refractory urticarial eruptions is therefore essential for identifying potential underlying malignancies.

Case Presentation: A 78-year-old male presented with a one-month history of pruritic erythematous papules. The lesions initially appeared on the anterior thorax and progressively spread to the abdomen, limbs, and face. Symptoms temporarily improved with antihistamines and corticosteroids but rapidly recurred after treatment discontinuation. The patient had no history of allergies. Physical examination revealed no fever, palpable lymphadenopathy, or arthralgia. Laboratory investigations showed leukocytosis, eosinophilia, elevated C-reactive protein, increased IgE levels, and mild hyperbilirubinemia. A broad differential diagnosis was considered, including systemic or cutaneous mastocytosis, cutaneous lymphoma, urticarial vasculitis, autoimmune urticaria, and viral hepatitis. These conditions were sequentially excluded through targeted investigations: bone marrow and skin biopsies with CD117 staining, serum tryptase levels, c-KIT mutation analysis, autoimmune testing (anti-TPO, ANA, anti-Ro/SS-A), serum immunoglobulin quantification with protein electrophoresis, complement levels (C3, C4), and ANCA testing. During further evaluation, the patient reported nocturia and pollakiuria. Digital rectal examination revealed an indurated, irregular, painless prostate, and serum prostate-specific antigen was markedly elevated (36.4 ng/mL). Prostate biopsy confirmed acinar adenocarcinoma with a Gleason score of 6 (ISUP grade 1). Computed tomography showed no metastatic disease. Androgen deprivation therapy with leuprorelin acetate was initiated, leading to complete resolution of the urticarial lesions and supporting paraneoplastic etiology.

Discussion:
Paraneoplastic urticaria associated with prostate cancer is extremely rare, with only a few cases reported. This case highlights the importance of considering paraneoplastic causes in elderly patients presenting with atypical or therapy-resistant urticaria. Recognizing such dermatologic manifestations may enable earlier diagnosis and treatment of underlying malignancies.

Keywords: Paraneoplastic urticaria, prostate cancer, cutaneous mastocytosis

Acute Severe Mitral Valve Rupture Due to Chordae Tendinae Rupture

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Introduction: Severe mitral regurgitation (MR) caused by Mitral valve prolapse (MVP) with chordae tendineae rupture is a common indication for surgical repair and may lead to rapid clinical deterioration if untreated. It is rare and may be deadly if left alone.

Case Report: A 58 year-old male with cardiovascular risk factors (smoking, dyslipidemia, and positive family history of myocardial infarction) presented with progressive inspiratory dyspnea and fatigue on minimal exertion (NYHA II-III). Four days earlier, he had been diagnosed with severe MR secondary to posterior leaflet MVP with suspected chordae rupture. His recent history included Clostridioides difficile infection treated with eradication therapy. Physical examination revealed a grade IV/VI holosystolic murmur at the mitral area. Vital signs were stable with heart rate 60 bpm, blood pressure 115/80, oxygen saturation 97%. BNP was elevated (663.7 mg/dL). Electrocardiography showed sinus rhythm without ischemic changes. Echocardiography demonstrated a heart failure with preserved ejection fraction (LVEF 60%) and grade II diastolic dysfunction. The left atrium was markedly dilated. Severe MR due to posterior MVP with suspected chordae tendineae rupture was confirmed, associated with mild functional tricuspid regurgitation and secondary pulmonary hypertension, confirming Barlow Syndrome. Coronary angiography via right radial access revealed no significant coronary stenoses. The patient underwent mitral valve repair consisting of triangular resection of posterior leaflet (P2 segment) and annuloplasty with implantation of 36mm Medtronic ring. Postoperative evolution was favorable, with clinical and hemodynamic improvement.

Discussion: Acute severe MR due to chordal rupture in MVP results in abrupt volume overload and increased left atrial pressure, explaining the patient's rapid symptom onset despite preserved systolic function. Echocardiography remains essential for defining the mechanism and severity of regurgitation. Mitral valve repair is preferred over replacement because it preserves ventricular geometry and has better long-term outcomes. Posterior leaflet repair using triangular resection and annuloplasty is a durable and effective technique. The recent C. difficile infection increased perioperative complexity, underlining the importance of infection control and multidisciplinary management. This case emphasizes the benefit of timely surgical intervention in degenerative MR to achieve favorable clinical outcomes.

Keywords: Mitral Valve prolapse, Acute Mitral Regurgitation, Chordae tendineae, Barlow Syndrome

Bilateral Uterine Artery Embolization in a Patient with Extensive Multifibroid Uterus: A Fertility-Preserving Approach

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Introduction: Uterine fibroids are the most common benign tumours of the female reproductive system, affecting up to 80% of women by the age of 50. In symptomatic patients, management options include medical therapy, uterine artery embolization (UAE), and surgical treatment. UAE has gained increasing relevance as a minimally invasive alternative that preserves the uterus and offers the potential for fertility preservation.

Case Presentation: We report the case of a 42-year-old nulliparous woman with a multifibroid uterus, presenting with severe pelvic pain and compressive symptoms that significantly impair quality of life. Pelvic MRI revealed an enlarged uterus (81×95×76 mm) containing more than 15 well-defined intramural and subserosal fibroids, ranging from 1.1 to 4.1 cm, some showing a tendency to conglomerate, reflecting a high fibroid burden. Despite the extent of disease and symptom severity, UAE was preferred over radical surgery due to the patient's desire to preserve fertility. Bilateral UAE was successfully performed, achieving complete devascularization of the fibroids, without intra-procedural or post-procedural complications. Follow-up imaging demonstrated a progressive reduction in fibroid size, with the largest lesion measuring 3.2×2 cm at one month and 2.47×1.98 cm at two months. At four months, further uterine volume reduction was observed, with the largest subserosal fibroid measuring 2.4×1.85 cm and minimal residual vascularization. Clinically, the patient experienced complete resolution of pain and compressive symptoms and is currently undergoing ovulation monitoring with the aim of achieving pregnancy.

Conclusion: This case highlights uterine artery embolization as an effective minimally invasive therapeutic option in patients with an extensive multifibroid uterus, achieving symptom resolution, significant fibroid reduction, and preservation of reproductive potential.

Keywords: Uterine fibroids, uterine artery embolization, multifibroid uterus, fertility preservation

Prevention as a Vector for Redefining Health: The Synergistic Impact of Lifestyle and Psychosocial Factors in Young Adults

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Introduction: Cardiovascular diseases (CVD) remain the leading cause of global mortality, despite well-established and largely modifiable risk factors, as emphasized in contemporary guidelines issued by the European Society of Cardiology and the American Heart Association. Premature ST-segment elevation myocardial infarction (STEMI) in young adults represents a major public health concern, particularly when multiple behavioral and psychosocial risk factors coexist. This case aims to highlight the cumulative impact of modifiable lifestyle factors and chronic psychological stress in accelerating atherosclerotic disease and to emphasize the critical importance of early cardiovascular prevention.

Case Presentation: We report the case of a 41-year-old male patient with a history of anterior STEMI occurring before the age of 40, treated with percutaneous coronary intervention and stent implantation in the left anterior descending artery (LAD) in April 2025. The patient presented multiple modifiable risk factors: active smoking (1 pack/day), chronic alcohol consumption, arterial hypertension, dyslipidemia (LDL 106 mg/dL under therapy), sedentary lifestyle, and poor medical follow-up prior to the event. A significant psychosocial burden was present, including chronic stress related to caregiving for parents with psychiatric disorders, a highly demanding professional role, depression, anxiety, and chronic sleep disturbances.

Discussion: This case illustrates the synergistic and cumulative nature of cardiovascular risk in young individuals. While traditional factors such as smoking, hypertension, and dyslipidemia remain central to atherogenesis, psychosocial stress, depression, and sleep disorders are increasingly recognized as independent cardiovascular risk modifiers. The coexistence of multiple behavioral and psychological stressors likely accelerated endothelial dysfunction and atherosclerotic progression, leading to premature STEMI and structural complications (apical aneurysm, reduced ejection fraction). Compared to classical metabolic phenotypes, this case highlights a non-obese, normoglycemic patient in whom lifestyle and psychosocial burden played a decisive pathogenic role. It reinforces the necessity of integrated cardiovascular and mental health screening, aggressive primary prevention strategies, and sustained secondary prevention to reduce recurrent events in young high-risk patients.

Keywords: prevention, cardiovascular risk factors, lifestyle and psychosocial factors, premature myocardial infarction

Unexpected Association between Ulcerative Colitis and Venous Thrombosis Linked to Antithrombin III

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Introduction: Ulcerative colitis is a chronic inflammatory bowel disease characterized by persistent mucosal inflammation of the colon and rectum and may be associated with various extraintestinal manifestations, including thromboembolic events. The coexistence of inflammatory bowel disease with congenital thrombophilia is uncommon and poses significant implications at the level of treatment management and the possibility of side effects.

Case Presentation: We report the case of an 18-year-old male patient with a medical history of congenital inferior vena cava malformation, congenital antithrombin III deficiency, extensive venous thrombosis, and chronic venous insufficiency of the lower limbs, currently receiving long-term anticoagulant therapy with a non-vitamin K antagonist oral anticoagulant. The patient presented to Filantropia Hospital with diffuse abdominal pain, rectal bleeding, rectal tenesmus, and significant weight loss over the previous year. Physical examination revealed abdominal tenderness to superficial and deep palpation, accelerated intestinal transit with more than three soft stools per day containing blood, easily palpable spleen. Laboratory investigations showed elevated inflammatory markers, moderate anemia, and markedly increased fecal calprotectin levels. Computed tomography confirmed extensive venous thrombosis and diffuse thickening of the colonic wall, predominantly involving the rectum and sigmoid colon. Lower gastrointestinal endoscopy revealed edematous mucosa with loss of vascular pattern and serpiginous superficial ulcerations on all levels of the colon. Histopathological examination of colonic biopsies confirmed active ulcerative colitis.

Discussion: This case raises an important question regarding the etiology of digestive bleeding, which may represent either an adverse effect of anticoagulant therapy or the manifestation of an underlying gastrointestinal pathology. The patient's procoagulant status may indicate either a direct relationship between the conditions or a coincidental association. Additionally, the management of ulcerative colitis requires anti-inflammatory therapy, while the anticoagulant treatment necessary for the patient's pre-existing conditions may influence the therapeutic response. Finally, an additional important aspect of this case is the increased risk of developing new thrombotic events as extraintestinal manifestations, particularly in the context of the patient's underlying genetic predisposition.

Keywords: Ulcerative colitis, venous thrombosis, anticoagulant treatment, case report

Triple Primary Malignancies in a Single Patient: Bladder, Colorectal and Prostate Cancer

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Introduction: Multiple primary malignant tumors are defined as the presence of two or more distinct primary cancers occurring in the same patient. Cancers occurring within six months are synchronous; if they occur more than six months apart, they are metachronous. Multiple primary cancers may also indicate genetic predisposition, like Lynch syndrome or a BRCA2 mutation, requiring further genetic testing. This case illustrates triple synchronous malignancies in the bladder, colorectum and prostate.

Case presentation: A 65-year-old male presented in July 2023 with seven months of gross hematuria. After transurethral resection, a urothelial bladder tumor was diagnosed. Uro-CT revealed a tissue mass at the left ureterovesical junction causing hydronephrosis and involving the rectosigmoid junction, raising the problem of bladder cancer extending to the rectum or a primary rectal tumor. In January 2024, colonoscopy was performed, showing a semicircumferential tumor in the upper rectum. Several biopsies from the tumor were taken and histopathological examination confirmed well-differentiated tubular colorectal adenocarcinoma. The hospital tumor board agreed to neoadjuvant XELOX chemotherapy every three weeks, with evaluations at three months. In June 2024, the patient underwent laparoscopic left nephroureterectomy, radical cystoprostatectomy and anterior rectal resection with colostomy. Histopathology showed high-grade infiltrative urothelial carcinoma of the bladder invading perivesical fat and mucinous colorectal adenocarcinoma of the rectum, invading its subserosa. Furthermore, on the histopathological examination of the prostate, another cancer was discovered: a bilateral prostate acinar adenocarcinoma.

Discussion: According to the literature, triple synchronous primary malignancies involving the bladder, colon and prostate are exceptionally rare. Our patient had high-grade urothelial carcinoma, colorectal mucinous adenocarcinoma and incidental prostate adenocarcinoma. Having multiple primary tumors indicates a potential hereditary cancer syndrome, like Lynch syndrome, which is associated with colorectal and urothelial cancers. Similarly, BRCA2 mutations are associated with increased risks of prostate and other cancers. Although unconfirmed here, these conditions should be considered for management, prognosis and family screening.

Conclusion: This case of triple synchronous primary malignancies highlights the importance of accurate differentiation from metastatic disease and the importance of multidisciplinary management. It also contributes to the limited literature, improving the understanding of synchronous tumors.

Keywords: triple synchronous malignancy; urothelial bladder carcinoma; colorectal adenocarcinoma; prostate adenocarcinoma; Lynch syndrome.

Severe Secondary Mitral Regurgitation - A Case of Successful Management through Coronary Revascularization

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Introduction: Ischemic mitral regurgitation is a common complication among patients with chronic coronary syndromes, resulting from a remodeling of the left ventricle (LV). The underlying mechanism is an imbalance between tethering forces and closing forces. The presence of this pathology worsens the patient's prognosis, leading to repeated episodes of cardiac decompensation and favoring disease progression.

Case Presentation: A 65-year-old woman without prior medical history was admitted for acute heart failure, characterized by resting dyspnea and orthopnea. Physical examination revealed an oxygen saturation of 80%, hypertension (190/105mmHg), tachycardia (AV=100bpm) and pulmonary crackles. Laboratory tests showed dyslipidemia and elevated NT-proBNP levels. Acute pulmonary edema was stabilized with CPAP ventilation, intravenous Furosemide and Nitroglycerin. Transthoracic echocardiography, complemented by transesophageal echocardiography, showed a mildly dilated LV, with impaired systolic function (LVEF=48%) and subtle hypokinesia of the inferior wall. Mitral valve (MV) assessment revealed severe secondary mitral regurgitation (MR), with structurally normal leaflets, significant tenting, and a Coanda effect along the the left atrial (LA) wall. According to the guidelines, the multidisciplinary team decided on surgical treatment of the mitral valvulopathy. Coronary CT performed before the intervention revealed subocclusive stenosis of the proximal segment of the right coronary artery (RCA). This finding was confirmed by angiography, followed by implantation of two drug-eluting stents. Subsequently, medical therapy was chosen, with reassessment of the mitral valvulopathy afterwards. At the three-month follow-up, the patient was asymptomatic, with a normal systolic function (LVEF=69%), no LV or LA dilatation, and only mild residual MR.

Discussion: This case highlights the importance of accurately defining the mechanism of MR, as therapeutic strategy may change accordingly. Primary MR is caused by structural valve or subvalvular abnormalities, whereas secondary regurgitation occurs despite normal leaflet morphology and results from impaired coaptation due to tethering-closing force. In our case, the marked improvement after coronary intervention suggested and ischemic substrate for MR. Resolution of severe regurgitation after revascularization demonstrates that treating the underlying ischemic condition can restore tethering-closing force balance and potentially avoid high-risk valvular surgery.

Keywords: Secondary Mitral Regurgitation, Coronary Revascularization

Endocardial Elimination of Epicardial Left Ventricular Summit PVC after Failed Great Cardiac Vein Ablation

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Introduction: Most ventricular arrhythmias are secondary to structural heart disease, frequently ischemic. However, idiopathic premature ventricular complexes (PVCs) represent a distinct, generally benign entity causing debilitating symptoms or arrhythmia-induced cardiomyopathy. Given high antiarrhythmic drug resistance—with failure rates up to 80% for beta-blockers and 35% for flecainide—catheter ablation provides an effective (~85% success), safe (<5% complications), and curative treatment. Epicardial left ventricular (LV) summit foci are challenging to treat due to low endocardial radiofrequency penetration. This region is typically accessed via the coronary venous system or subxiphoid puncture.

Case Presentation: A 47-year-old woman with idiopathic ventricular extrasystole, obesity, hypercholesterolemia, type 2 diabetes, and treated Hashimoto hypothyroidism presented with persistent palpitations at rest and reduced exercise tolerance. PVC burden remained high despite beta-blocker (28%) and beta-blocker plus flecainide (23%) therapy. ECG criteria (wide QRS, pseudodelta wave, maximum deflection index >0.55) suggested an LV summit epicardial origin. Echocardiography, coronary CT, and cardiac MRI confirmed a structurally normal heart, ruling out silent ischemia or early cardiomyopathic changes.Using CARTO-3, activation mapping suggested the ectopic focus originated at the epicardial level in the LV summit region. Radiofrequency (RF) delivery at 20W within the great cardiac vein (GCV) resulted in transient suppression, but recurrence occurred due to power limitations and coronary proximity. Subsequent endocardial mapping identified a site near the epicardial focus (15ms pre-activation). High-energy, irrigated RF (40W for 120s) was delivered endocardially, resulting in durable elimination. Post-ablation Holter at one month confirmed total absence of ectopy.

Discussions: This case highlights the importance of recognizing ECG markers of epicardial-origin PVCs and the limitations of ablation within the great cardiac vein due to coronary proximity, epicardial fat, and restricted energy delivery. In LV summit PVCs with suspected epicardial origin, epicardial ablation via the GCV may be ineffective due to limited energy delivery and anatomic constraints. This case shows that high-energy, prolonged endocardial ablation at an anatomically opposite site can successfully eliminate an epicardial focus when direct epicardial application is unsafe. Moreover, endocardial ablation of LV summit PVCs should potentially be considered before attempting an epicardial approach given its lower procedural risk.

Keywords: Left ventricular summit arrhythmia, Idiopathic premature ventricular complexes, Epicardial ventricular arrhythmia, Endocardial radiofrequency ablation, Electroanatomical mapping

A Rare Case of Aortic Dissection in a Teenager, Masked by Alcohol Intake

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Introduction: Aortic dissection is exceptionally rare in the pediatric population but carries high mortality if diagnosis is delayed. Most pediatric cases are associated with heritable connective tissue disorders, requiring rapid recognition and surgical management.

Case presentation: A 14-year-old boy presented in the Emergency Department of our hospital with syncope preceded by severe precordial pain after alcohol consumption. At admission, the patient was disoriented and unable to provide a reliable history. Initial evaluation revealed that he was hemodynamically stable, with a normal electrocardiogram, oxygen saturation, and blood pressure. Chest radiography showed cardiomegaly and prominence of the aortic knob, initially underestimated. The following morning, the patient developed precordial pain, hypotension, tachycardia, dizziness and inability to walk. Urgent cardiologic evaluation including clinical examination, ECG, and transthoracic echocardiography was performed. An absent radial pulse raised clinical concern. Physical examination revealed a grade IV/VI diastolic murmur in the aortic area and hepatomegaly. Transthoracic echocardiography demonstrated a markedly dilated ascending aorta (Z-score +9.9) with an intimal flap extending toward the brachiocephalic trunk and severe aortic regurgitation. Emergency CT angiography confirmed Stanford type A DeBakey I aortic dissection, with right common carotid artery obstruction and a Kommerell diverticulum. Myocardial ischemia was suggested by ECG changes and elevated cardiac biomarkers.The patient was transferred to pediatric cardiovascular surgery, where an emergency Bentall–De Bono procedure was performed using a 26-mm Dacron graft conduit with a 23-mm St. Jude mechanical prosthesis and coronary artery reimplantation, followed by postoperative anticoagulation. Infective endocarditis developed 10 days postoperatively and responded to combined antibiotic therapy. One month later, CT angiography revealed an enlargement of the Kommerell diverticulum and persistence of the dissection flap. Reoperation with implantation of a complete aortic prosthesis was successfully performed and lifelong anticoagulation therapy was recommended. Genetic testing confirmed Loeys–Dietz syndrome, explaining the underlying predisposition to aortic dissection.

Discussion: Aortic dissection, very rare in children, can be masked by alcohol intoxication, delaying diagnosis. Red flags such as chest pain, syncope, pulse deficits, and cardiac decompensation should prompt urgent evaluation. Transthoracic echocardiography is key for diagnosis, CT angiography defines dissection extent, and follow-up with activity restriction is recommended.

Keywords: Aortic dissection, Loeys–Dietz syndrome, Absent radial pulse, Teenager

Herpes Simplex Virus Type 1 Encephalitis in a Hemodialyzed Patient: A Case Report

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Introduction: Herpes Simplex Encephalitis (HSE) is a critical neurological emergency. This unique case involves a multi-vulnerable patient with ESRD and a recent Shingles episode, suggesting immunosuppression-linked HSV-1 reactivation. We highlight the diagnostic challenges in differentiating HSE from uremic encephalopathy or dialysis disequilibrium in complex, hemodialyzed patients, to ensure prompt intervention.

Case Presentation: A 70-year-old female, retiree, from a rural area, with a history of hypertension and a renal neoplasm treated 15 years ago, presented with acute neurological symptoms. The patient is currently managed for end-stage renal disease (ESRD) via a chronic hemodialysis program. Notably, she experienced a localized Herpes Zoster infection on the posterior thorax three months prior to this admission. The patient was admitted 2–3 days after her last hemodialysis session following the acute onset of a confusional state, psychomotor agitation, and complex auditory and visual hallucinations. Physical examination revealed a subfebrile status (37.5 °C) without focal motor deficits.
Diagnostic Assessment: Imaging – Emergency CT-normal, brain MRI showed left temporal lobe hyperintensity; Laboratory – Lumbar puncture confirmed lymphocytic pleocytosis and proteinorhachia, with later serology positive for HSV-1 IgM; Differential Diagnosis – Initial suspicions of uremic or limbic encephalitis were dismissed, with findings ultimately confirming Herpes simplex encephalitis.
Pharmacological intervention comprised a renal-dosed Acyclovir regimen (40mg x 5/day), co-administered with antipsychotic, intravenous fluid resuscitation, vitamin therapy, antipyretics and neurotrophic support. Following hemodynamic and neurological stabilization, care was transitioned to a specialized Infectious Diseases unit for protracted antiviral administration.

Discussion: This case highlights the challenge of distinguishing viral encephalitis from uremic encephalopathy in ESRD patients. Despite delayed seroconversion, rapid MRI and CSF analysis were crucial. Impaired T-cell immunity in dialysis patients increases reactivation risks, as suggested by the recent Shingles. The primary take-away is that psychiatric symptoms or „post-dialysis" confusion in elderly patients, especially those with subfebrile temperatures/recent herpetic history should trigger immediate investigation for viral encephalitis rather than being dismissed as metabolic.

Key Words: Herpes Simplex Encephalitis, Hemodialysis, Acyclovir, Case Report, Viral Meningoencephalitis.

Peritoneal Tuberculosis Presenting with Ascites and Systemic Inflammatory Syndrome: A Diagnostic Challenge

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Introduction: Extrapulmonary tuberculosis accounts for a significant proportion of tuberculosis cases and may involve multiple organs with highly variable manifestations. Among these, parietal tuberculosis is particularly rare and may mimic infectious, inflammatory or malignant diseases. Because symptoms are often nonspecific and imaging findings may be inconclusive, establishing the diagnosis requires extensive evaluation and careful interpretation.

Case Presentation: A 22-year-old male with no known history of bacillary antecedents or contact with tuberculosis and with negative HIV testing was admitted for persistent fever, abdominal distension and altered general condition. The patient had no significant past medical history. Clinical examination revealed hepatosplenomegaly, moderate ascites and systemic inflammation. Laboratory investigations showed mild anaemia in an inflammatory context and elevated inflammatory markers, with CRP > 375 mg/L. Initial thoraco-abdominal imaging evaluation (abdominal ultrasound, chest radiography, contrast-enhanced CT) showed no pulmonary lesions. Findings confirmed moderate ascites associated with hepatosplenomegaly and diffuse peritoneal fat densification without lymphadenopathy. Diagnostic paracentesis revealed a sterile exudate with predominantly monocytic leukocytosis, suggesting chronic inflammation or a granulomatous process. Ascitic fluid analysis and microbiological cultures, including BK PCR and adenosine deaminase, were performed to investigate possible infectious causes, with negative bacteriological and fungal results. Additional investigations, including viral serologies, immunological and haematological evaluations, were carried out to exclude autoimmune diseases, malignancies and other systemic inflammatory diseases. Genetic testing for Gaucher disease was also performed and yielded negative results. Despite this extensive diagnostic work-up, the etiology of the inflammatory syndrome remained unclear. Therefore, an exploratory laparoscopy with peritoneal biopsy was performed in an attempt to establish a diagnosis. Histopathological examination of the diffuse lesions demonstrated caseating granulomatous inflammation consistent with tuberculosis. These findings confirmed the diagnosis of peritoneal tuberculosis, explaining both the systemic inflammatory syndrome and the ascitic presentation. Following initiation of standard antituberculous therapy, progressive clinical improvement was observed, with ascites remission.

Discussion:
Peritoneal tuberculosis represents a rare manifestation of extrapulmonary tuberculosis and may present with nonspecific symptoms such as fever, ascites and inflammatory syndrome, often delaying diagnosis, particularly in the absence of pulmonary involvement. Peritoneal biopsy remains the most sensitive diagnostic tool and is essential for establishing the diagnosis in patients with unexplained ascites.

Keywords: extrapulmonary tuberculosis, parietal tuberculosis, ascites, granulomatous inflammation, histopathological diagnosis

Primary Percutaneous Coronary Intervention in Acute Inferior STEMI with High Thrombic Load: A Case Report

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Introduction: Acute inferior ST-elevation myocardial infarction (STEMI) frequently involves the right coronary artery (RCA). In cases with a high thrombic load, the risk of distal embolization or the "no-reflow" phenomenon increases significantly. Rapid revascularization through primary percutaneous coronary intervention (PCI) is critical to minimize myocardial necrosis and prevent long-term complications.

Case Presentation: A 66-year-old male with cardiovascular risk factors presented with crushing retrosternal pain (onset < 2 hours). Upon admission, the patient was hemodynamically stable, with a blood pressure of 135/85 mmHg and a heart rate of 72 bpm. ECG revealed diagnostic ST-segment elevation in leads II, III, and aVF. Laboratory tests confirmed the event, with peak high-sensitivity Troponin I > 5000 ng/L and CK-MB of 142 U/L. Urgent coronary angiography identified a 100% proximal occlusion of a dominant RCA. To manage the thrombus, manual thromboaspiration was performed, followed by the implantation of a Drug-Eluting Stent (DES) (3.5 x 28 mm) at 16 atm. Final angiography confirmed restored TIMI 3 flow and optimal stent expansion.

Discussion: This case illustrates the challenge of managing a high thrombic load in acute MI. Despite the total occlusion, the patient remained hemodynamically stable, reflecting the fact that the territory supplied by the RCA is typically smaller than that of the left coronary system, preserving overall left ventricular function. While routine manual thrombectomy is not indicated for all PCI procedures, it remains a vital strategy in specific scenarios to ensure vessel patency. Post-procedural management was optimized with a comprehensive regimen: dual antiplatelet therapy (Aspirin 100 mg and Ticagrelor 90 mg bid), high-intensity statin (Atorvastatin 80 mg), an ACE inhibitor (Ramipril 5 mg), and a beta-blocker (Metoprolol 25 mg). The successful outcome highlights the synergy between timely mechanical intervention and aggressive pharmacological support. Utilizing thromboaspiration and modern DES technology, combined with guideline-directed medical therapy, is essential for achieving complete reperfusion and ensuring a favorable prognosis.

Keywords: STEMI, Primary PCI, Thromboaspiration, Right Coronary Artery, Drug-Eluting Stent

Advanced Emphysema Associated with a Rare Null Variant of Alpha-1 Antitrypsin Deficiency

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Introduction: Alpha-1 antitrypsin deficiency (AATD) is an autosomal recessive genetic disorder affecting both men and women, caused by mutations in the *SERPINA1* gene. These mutations result in reduced or absent levels of alpha-1 antitrypsin, leading to insufficient inhibition of neutrophil elastase and progressive destruction of lung parenchyma, ultimately causing pulmonary emphysema.

Case Presentation: A 46-year-old female presented to the Department of Pneumology in February 2023 with severe fatigue and dyspnea on exertion. Family history was notable for respiratory disease, and she had been diagnosed approximately eight years earlier with genotype PI*Q0 (null) AATD. Patient behavior history included harmful lifestyle choices, and three previous hospitalizations for infectious exacerbations of respiratory symptoms. Due to worsening symptoms, she was admitted for further clinical, laboratory, and imaging evaluation. Pulmonary function tests revealed markedly reduced VC, FEV1 and Tiffeneau index, consistent with very severe mixed ventilatory dysfunction. Laboratory tests showed elevated ESR, while thoracic CT demonstrated diffuse pulmonary emphysema with traction bronchiectasis. The 6 minutes walk test could not be finished either. Augmentation therapy was initiated, along with triple inhaled therapy and oxygen therapy at 2.5 L/min for 16 hours per day. Harmful lifestyle habits were also prohibited. During follow-up, the patient was admitted to the intensive care unit in 2024 for severe COVID-19 infection, which resulted in further clinical deterioration and the development of cardiovascular complications, including severe pulmonary hypertension (class III), moderate mitral insufficiency, and moderate left ventricular dysfunction. Permanent need for oxygen therapy lead to the diagnosis of depression in February 2025. The patient continued regular cardiological and pneumological monitoring until August 2025, when she experienced her final infectious exacerbation. She died in September 2025, with a suspected stroke reported as the cause of death.

Discussion: This case highlights the severe pulmonary consequences of a rare null variant of AATD associated with undetectable serum AAT levels. Delayed initiation of augmentation therapy, combined with environmental exposure and smoking, likely contributed to rapid disease progression. Early screening for AATD in patients with COPD or early-onset emphysema remains essential, as timely diagnosis and treatment may slow disease progression and improve clinical outcomes.

Keywords: Alpha-1 antitrypsin deficiency, genetic disorder, mixed ventilatory dysfunction, pulmonary emphysema, augumentation therapy.

When Sore Throat Becomes Heart Failure: Acute Myocarditis in an Adolescent

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Introduction: Acute myocarditis in adolescents may follow an infectious episode and may progress rapidly from chest pain to severe left ventricular dysfunction and heart failure. This case illustrates a cardiac complication during acute streptococcal tonsillitis, with favorable recovery after prompt intensive treatment.

Case presentation: A 16-year-old boy presented to the infectious diseases emergency department with fever, headache, malaise, and acute streptococcal tonsillitis. He was discharged with oral cefuroxime axetil and clindamycin. On the third day after treatment initiation, he returned with constrictive chest pain and dyspnea. Clinical examination revealed tachycardia, muffled heart sounds, weak peripheral pulse, capillary refill time of 3-4 seconds, blood pressure 95/55 mmHg, cold extremities and diaphoresis, compatible with cardiogenic shock. Inflammatory and cardiac biomarkers were elevated: CRP 19.6 mg/dl, procalcitonin 2.18 ng/mL, CK-MB 79 U/l, troponin I 2128 pg/mL and NT-proBNP 3113 pg/mL. ECG revealed sinus rhythm, heart rate 91/min, PR 0.12 s, QTc 394 ms and ST segment elevation of 3-4 mm in DII, DIII, aVF and 2 mm in V5-V6. Echocardiography revealed depressed left ventricular systolic function, ejection fraction 37%, fractional shortening 18%, lateral wall hypokinesia, basal septal hypokinesia with interventricular septal dyskinesia, grade II mitral regurgitation, grade I aortic regurgitation, bicuspid aortic valve behavior, and reduced pericardial effusion. In intensive care, he was treated with intravenous penicillin 3,000,000 IU/day in four doses, intravenous clindamycin 900 mg/day in three doses, intravenous immunoglobulin 2 g/kg, dobutamine 5 µg/kg/min, and supportive therapy. The outcome was favorable, with remission of chest pain, hemodynamic stabilization, biomarker improvement, and echocardiographic return to grade I mitral regurgitation, grade I aortic regurgitation, and minimal pericardial effusion. Holter ECG documented sinus rhythm for 17 hours and 46 minutes, heart rate 55–156/min, without pauses or tachyarrhythmias. Cardiac MRI supported the diagnosis, showing subepicardial edema with left ventricular dilation and minimal pericardial effusion, findings compatible with acute myocarditis.

Discussion: The peculiarity of this case lies in the association between documented acute streptococcal tonsillitis and severe but reversible acute myocarditis in a 16-year-old adolescent, marked by left ventricular dysfunction, heart failure, and cardiogenic shock, despite absence of significant rhythm disturbances on Holter electrocardiogram.

Keywords: acute myocarditis; adolescent; streptococcal tonsillitis; cardiogenic shock; heart failure

Malignancy of Unknown Origin Revealing an Epithelioid Hepatic Stromal Tumor: Metastatic GIST or Primary EGIST?

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Background: Malignancy of unknown origin (MUO) frequently presents with liver lesions, particularly when contrast-enhanced imaging fails to identify a primary tumor. While carcinomas represent the most common etiology, rare mesenchymal tumors may mimic epithelial malignancies, especially when epithelioid morphology is present.

Case presentation: A 74-year-old woman presented with multiple liver lesions classified as malignancy of unknown origin following contrast-enhanced ultrasound (CEUS). No primary tumor was identified, and there was no history of gastrointestinal neoplasia. An ultrasound-guided liver core biopsy was performed. Histologic examination demonstrated an epithelioid neoplasm composed of cohesive tumor cells with moderate cytoplasm and round to oval nuclei, lacking glandular or trabecular differentiation. Based on morphology alone, the lesion raised a broad differential diagnosis, including poorly differentiated carcinoma and neuroendocrine neoplasm. An extended immunohistochemical panel was applied. Tumor cells showed strong diffuse positivity for CD117 (c-KIT) and DOG1, while CD34 was negative. Markers of epithelial, neuroendocrine, melanocytic, and vascular differentiation were negative. These findings supported the diagnosis of a gastrointestinal stromal tumor involving the liver. In the absence of an identifiable gastrointestinal primary, the differential diagnosis included metastatic GIST versus primary hepatic extragastrointestinal stromal tumor (EGIST). Clinical follow-up and molecular testing were unavailable, as the patient was lost to follow-up.

Discussion: Epithelioid morphology in liver tumors represents a major diagnostic pitfall in MUO evaluation, as it may obscure mesenchymal lineage or favor misclassification as carcinoma. A GIST phenotype in the liver further complicates the distinction between metastatic disease and primary hepatic EGIST, a diagnosis that remains controversial and one of exclusions. This case highlights an important diagnostic pitfall in MUO evaluation. In the setting of MUO with multifocal liver involvement, a GIST phenotype on biopsy favors metastatic disease, while primary hepatic EGIST with intrahepatic satellites remains a theoretical but less likely possibility.

Conclusion: GIST should be considered in the differential diagnosis of MUO presenting as epithelioid liver tumors. Recognition of characteristic immunohistochemical profiles is essential, while definitive distinction between metastatic GIST and primary hepatic EGIST may remain unresolved without longitudinal clinical correlation.

Keywords: malignancy of unknown origin; epithelioid tumor; liver biopsy; GIST; EGIST.

When Symptoms Mislead: The Challenge of Diagnosing Tuberculous Meningitis

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Introduction: Tuberculosis remains one of the most prevalent infectious diseases worldwide, particularly in developing countries. Tuberculous meningitis (TBM), a severe manifestation of extrapulmonary tuberculosis, occurs in approximately 1–5% of the nearly 10 million tuberculosis cases reported worldwide each year.

Case Presentation: We present the case of a 22-year-old patient, non-smoker, who does not consume alcohol affirmatively, with a history of 3 natural births, from whom it is difficult to obtain anamnestic data both from her and from her relatives, she accuses the onset of symptoms in followed 10 days by bilious vomiting, abdominal pain, which is why she is hospitalized in the Surgery Clinic for 6 days with the diagnosis of acute cholecystitis, where the suspicion of pulmonary tuberculosis is raised and she is discharged with the indication of hospitalization in the Pneumology Clinic. Later, the patient is brought to the UPU for food vomiting, diffuse abdominal pain, more intense in the upper abdominal floor and headache. CT is performed in the UPU which describes gallstones and a main bile duct of 7 mm and a gastric stasis, and from the laboratory analyzes we note pancreatic and serum amylase of approximately 250 U/L, and leukocytosis of 13000/mm3, the patient refusing to mount nasogastric tube, is admitted to the Internal Medicine Clinic for emetic syndrome. Under antiemetics, anti-algesics, antibiotic therapy and a hygienic-dietary regime, the patient shows improvement in digestive symptoms, but the neurological symptoms persist, to which is added photophobia, after many ophthalmological, surgical, neurological, pulmonological evaluations, it is decided to perform a CSF puncture, which diagnoses protein meningitis increased, low glucose, positive Pandy reaction and opalescent appearance. Computerized tomography of the skull and abdomen is performed, which describes meningeal tuberculoma and bacillary leptomeningitis and associates hydrocephalus, but also biliary pancreatitis stage B. The patient is transferred to the Intensive Care Service of the Clinical Hospital for Infectious Diseases in Craiova, where she dies shortly after initiation therapy with anti-tuberculosis medication.

Discussion:
The peculiarity of this case lies in the initially non-specific symptomatology headache, nausea, and vomiting which prompted medical evaluation but did not immediately suggest a central nervous system infection. The concomitant presence of biliary pancreatitis further complicated the clinical picture, as the digestive symptoms could reasonably be attributed to this condition. Moreover, the neurological manifestations may have been misleading, potentially interpreted as secondary to pancreatic encephalopathy. The patient's young age represents another unusual feature, as tuberculous meningitis is more commonly described at the extremes of age or in immunocompromised individuals.

Keywords: Tuberculous meningitis; Diagnostic challenge; Biliary pancreatitis

Metastatic Melanoma Presenting as a CEUS LI-RADS LR-M Lesion in Presumed Cirrhosis: Considering Pseudocirrhosis Mimic

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Introduction: Cirrhotic livers are usually approached with primary malignancies in mind, particularly hepatocellular carcinoma (HCC) and cholangiocarcinoma, while metastases may be under-considered.

Case report: A 77-year-old woman with a clinician-reported history of liver cirrhosis was found to have multiple hepatic lesions. Contrast-enhanced ultrasound categorized the dominant lesion(s) as CEUS LI-RADS LR-M, and the clinician suspected cholangiocarcinoma. Ultrasound-guided core biopsy showed a tumor replacing approximately 90% of the sample, arranged in nested and trabecular patterns. Tumor cells were epithelioid to ovoid with intranuclear pseudoinclusions and focal brown pigment. Immunohistochemistry demonstrated strong diffuse SOX10 and Melan-A expression, S100 negativity, and Ki-67 of approximately 6%, supporting malignant melanoma and favoring metastatic disease. No prior history of melanoma was known.

Discussion: Metastases to cirrhotic livers are rare but well-documented. Autopsy series reports a prevalence of approximately 0–2.9%, while a multi-institution surgical pathology cohort found metastases in only 1.7% of 1453 cirrhotic liver specimens sampled for a mass lesion. The primary tumors reported in cirrhotic liver metastases largely mirror those seen in non-cirrhotic livers and include colorectal carcinoma, neuroendocrine neoplasms, pancreatic, upper gastrointestinal, breast, Müllerian, and lung carcinomas. In a nationwide Dutch registry of 23,154 histologically confirmed liver metastases, melanoma accounted for 2.4%, arising predominantly from cutaneous and uveal primaries. S100 expression may be absent in a small subset of metastatic melanomas (about 1% in large series), with ocular primaries overrepresented among S100-negative cases in one series, suggesting a uveal origin in our patient. Pseudocirrhosis due to metastatic melanoma is reported in the literature, whereas metastatic melanoma in a truly cirrhotic liver appears exceptionally rare. Although the patient was reported as cirrhotic, pseudocirrhosis is a consideration in metastatic liver disease; follow-up imaging was unavailable. This presentation illustrates an expectation-bias loop—presumed cirrhosis favors a primary hepatic diagnosis, potentially leading to under-consideration of metastasis—while pseudocirrhosis itself may mimic true cirrhosis.

Conclusion:
Even in presumed cirrhosis, metastatic disease should remain in the differential diagnosis, particularly with an LR-M pattern on CEUS. This case reinforces the essential role of biopsy for definitive tumor classification and highlights pseudocirrhosis as a potential mimic of true cirrhosis in metastatic liver disease.

Keywords: Liver cirrhosis, Pseudocirrhosis, Metastatic melanoma, Contrast-enhanced ultrasound (CEUS), CEUS LI-RADS LR-M

Keeping the Brain under Control or Condemning the Heart to a Lifetime Sentence: Antipsychotics VS Cardiomyopathy

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Background: Dilated cardiomyopathy is a disease characterized by ventricular dilatation and systolic dysfunction in the absence of significant coronary artery disease or abnormal loading conditions. Many causes may underlie it, including genetic, inflammatory, toxic, metabolic or drug-induced. Increasing attention has been directed toward the cardiotoxic effects of second-generation antipsychotics as potential contributors to myocardial dysfunction. Recognition of the underlying cause of DCM is important for management, risk stratification, and prognosis.

Case presentation: We report a case of a 50-year-old male, smoker, grade 2 essential hypertensive, with high cardiovascular risk, mixed dyslipidemia under treatment, and schizophrenia on antipsychotic therapy. About 3–4 months before the admission, he started presenting swinging values of blood pressure, with episodes of postural dizziness. His past medical history was otherwise unremarkable apart from chronic heart failure (NYHA class II) with a previously mildly reduced left ventricular ejection fraction.
On examination, the blood pressure was 155/100 mm Hg, and a grade 3/6, holosystolic mitral murmur was heard. Testing for orthostatic hypotension was negative. Lab studies and electrocardiogram were normal except for an elevated B.N.P. level. Transthoracic echocardiography revealed a dilated left ventricle, with reduced systolic function, and moderate secondary mitral regurgitation. Cardiac magnetic resonance imaging that showed patchy mid-myocardial fibrosis in keeping with non-ischemic dilated cardiomyopathy. Coronary CT angiography showed a calcium score of zero and normal epicardial coronary arteries, therefore ruling out ischemic cause. The etiologic workup included genetic analysis for dilated cardiomyopathy of 59 cardiomyopathy-, ion-channel- and sarcomere-related genes. There was, however, identified a VUS in CSRP3 gene. Combining all clinical and imaging findings, the final diagnosis was a dilated cardiomyopathy of mixed etiology (possibly genetic and drug-related), associated with left ventricular hypertrabeculation and heart failure with reduced ejection fraction.
The patient was commenced on guideline-directed medical therapy for heart failure, with subsequent favorable clinical evolution and partial recovery of ejection fraction (approximately 40%) at one-month follow-up.

Discussion: The main take-away from this case: genetic predisposition together with cardiotoxic side effects of antipsychotic medication makes the etiology of dilated cardiomyopathy difficult to determine. Multidisciplinary evaluation is important for an accurate diagnosis and management.

Keywords: dilated cardiomyopathy, antipsychotics, CSRP3 gene, genetic predisposition, ejection fraction

The Hidden Diagnosis: Wilson Disease in a Child with Nonspecific Clinical Onset

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Introduction: Wilson disease is a rare autosomal recessive disorder of copper metabolism caused by mutations in the ATP7B gene, leading to progressive copper accumulation in the liver, brain, and other tissues. In pediatric patients, hepatic involvement usually represents the earliest manifestation of the disease, whereas neurological symptoms tend to occur later in the disease course. However, the clinical onset may be nonspecific and classical diagnostic features may be absent, which can delay recognition of the disease.

Case Presentation: We present the case of a 6-year-old girl admitted for evaluation of persistent hepatocytolysis discovered during investigations following an episode of sinus tachycardia associated with chest pain and diaphoresis during physical activity. Initial cardiological evaluation, including electrocardiography and echocardiography, excluded structural cardiac disease. Clinical examination showed a good general condition, without any neurological abnormalities, she was hemodynamically stable and her liver was palpable 1–2 cm below the right costal margin. Laboratory investigations confirmed persistent hepatocytolysis with cholestasis. Extensive etiological testing excluded viral hepatitis (A, B, C, E), Epstein–Barr virus, Cytomegalovirus, Herpes-Simplex infection; also, we excluded an autoimmune hepatitis, celiac disease, and alpha-1 antitrypsin deficiency. Further evaluation revealed decreased serum ceruloplasmin and mildly elevated baseline 24-hour urinary copper excretion. A D-penicillamine challenge test showed markedly increased urinary copper excretion (934.2 µg/24 h), strongly suggesting Wilson disease. Liver elastography demonstrated normal liver stiffness (3.9 kPa), ophthalmologic examination did not reveal Kayser–Fleischer ring, and brain MRI showed no abnormalities. The diagnosis was confirmed by genetic testing identifying pathogenic mutations in the *ATP7B* gene. Chelation therapy with D-penicillamine and dietary copper restriction were initiated, with good outcome.

Discussion:
This case highlights the importance of considering Wilson disease in the differential diagnosis of unexplained hepatocytolysis in pediatric patients. Compared with cases described in the literature, the particularities of this case include a nonspecific clinical onset, absence of significant hepatomegaly, lack of Kayser–Fleischer rings, normal brain MRI findings, and diagnosis at an early stage without hepatic fibrosis despite biochemical liver involvement. These features may complicate early recognition of the disease, emphasizing the importance of a comprehensive diagnostic approach including copper metabolism assessment and genetic confirmation.

Keywords: Wilson Disease, Hepatocytolysis, ATP7B mutation, Copper metabolism

Harmonizing Hemodynamics: PASCAL Transcatheter Edge-to-Edge Repair for Mitral Regurgitation with Coexisting Patent Foramen Ovale

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Introduction: Mitral regurgitation (MR) is one of the most prevalent valvular heart diseases, with its incidence increasing significantly with age (1). Mitral transcatheter edge-to-edge repair (M-TEER) has become a cornerstone in the management of severe MR, providing a minimally invasive alternative for patients with high-risk profiles and surgical contraindications (2). This case underscores the complex interplay between the patient's unique anatomy and the M-TEER procedure.

Case Report: A 76-year-old male patient with a complex cardiovascular history presented to the cardiology department with dyspnea and fatigue on minimal exertion. On examination, the patient was afebrile, with a blood pressure of 110/55 mmHg and a heart rate of 60 bpm. The electrocardiogram revealed atrial fibrillation with normal ventricular rate and a minor right bundle branch block. The transthoracic (TTE) and transesophageal (TEE) echocardiography identified severe primary MR (a significant eccentric jet reaching the posterior wall of the left atrium), caused by anterior mitral leaflet prolapse and A2 flail, moderate to severe tricuspid regurgitation, a non-dilated left ventricle with an ejection fraction (EF) of 45%, important dilation of both atria, and a patent foramen ovale (PFO). Considering the severe MR and the associated symptoms, management of the mitral valve pathology became mandatory to prevent further hemodynamic deterioration. Due to the high surgical risk (STS score - 6% and EuroSCORE II - 7,12 %), the Heart Team opted for a M-TEER approach. Despite the anatomical challenges of performing a transseptal puncture in the presence of PFO, a PASCAL device was successfully implanted, targeting the A2-P2 scallops and leading to a mild residual MR. At the 3-month follow-up, the patient's functional capacity had significantly improved. TTE indicated that the patient's left ventricular EF increased to 50%, while the residual MR was still mild.

Discussion: M-TEER resulted in significant clinical and paraclinical improvement, validating the role of TEER in high-risk valvular heart disease. Mild residual MR, though not complete resolution, is associated with enhanced functional status (3). A concomitant PFO constitutes a specific anatomical challenge during transseptal puncture; however, rigorous perioperative imaging remains the cornerstone for achieving successful device implantation and favorable clinical outcomes (4–6).

Keywords: mitral regurgitation, PASCAL device, transcatheter edge-to-edge repair

Beyond the Abdominal and Neuropsychiatric Crisis: a Hidden Metabolic Dysfunction

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Introduction: Acute intermittent porphyria is a rare genetic disease caused by a mutation in the hydroxymethylbilane-synthase (HMBS) gene, which encodes the porphobilinogen deaminase, an enzyme that takes part in the Shemin pathway of heme production. This disruption of the metabolic route causes elevated levels of both aminolevulinic acid (ALA) and porphobilinogen (PBG), neurotoxic substances responsible for the neurological manifestations, such as autonomic and peripheral neuropathy, along with central nervous system symptoms, that can lead to death if misdiagnosed and untreated in time.

Case report: A 22-year-old female with a medical history of substance abuse and psychiatric prescriptions presents at the emergency room with severe abdominal pain and ileus, yet imaging testing shows no sign of intestinal occlusion. During hospitalization, the abdominal symptoms resolved under conservative treatment. However, the patient started to present hypotonia in the limbs, movement impairment, unsystematic arthralgia and episodes of syncope, also showing signs of behavioral changes such as severe anxiety, restlessness and confusion. The patient is referred for interdisciplinary examinations, with no significant findings, while repeated blood and urinary tests indicate hepatic and renal dysfunction, dyselectrolytemia and elevated levels of neutrophils. Five days after hospitalization, elevated urinary levels of PBG and ALA are detected, helping to diagnose the patient with acute intermittent porphyria.

Discussion: Although this patient showed characteristic symptoms of porphyria, the diagnosis was hindered not only by the delayed detection of the porphyrinic urinary markers, but also by the psychiatric history and the substance abuse which could have suggested that the neurological symptoms were a sign of withdrawal, rather than those of an underlying condition, as current literature states that certain medication can trigger and aggravate acute attacks of porphyria in those susceptible. This particular case highlights the importance of carefully considering substance abuse as a possible confounding factor when treating patients, as it can obscure the clinical presentation and interfere with the accurate diagnosis of possibly life-threatening conditions.

Keywords: porphyria, substance abuse, psychiatric medication

More Than a Tear: When Multiple Myeloma Hides Behind an Intimal Flap

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Introduction: While aortic dissection is a surgical emergency commonly attributed to hypertension or connective tissue disorders, systemic malignancies may also compromise the vessel wall through chronic inflammation or amyloid infiltration.

Case Report: A 51-year-old male with a history of hypertension and dyslipidemia presented to the emergency room with acute chest pain radiating to the back, fatigue and weight loss. Physical examination revealed a new Grade III diastolic murmur at Erb's point, suggestive of acute aortic regurgitation. Initial laboratory findings showed concomitant hypercalcemia and anemia, which warranted a comprehensive hematological workup. Transthoracic echocardiography identified an intimal flap, prompting an urgent contrast-enhanced CT. Imaging confirmed an extensive Stanford Type A dissection involving the ascending aorta, aortic arch, descending thoracic aorta and abdominal aorta, with an associated rupture in the ascending segment. The patient underwent emergency surgical intervention with a Dacron prosthetic graft. Post-operative hematological evaluations revealed an increased ratio of kappa/lambda serum free light chains, confirming multiple myeloma.

Discussion: The presentation of a chronic hematologic malignancy through an acute aortic event is exceedingly rare. In this patient, the absence of an extreme hypertensive crisis suggests that plasma cell dyscrasia contributed to aortic wall friability. The pathophysiology likely involves systemic AL amyloidosis, where light-chain proteins infiltrate the tunica media, weakening the structure of the vessel and predisposing it to spontaneous rupture. This case contributes to the rare but growing literature where aortic dissection is the "herald event" of multiple myeloma. While standard literature focuses on hypertension as the primary cause of dissection, this case highlights that in patients with B symptoms, it may actually be a paraneoplastic vascular complication.

Conclusion: Aortic dissection is not merely a mechanical event triggered by hemodynamic stress; it can be the first expression of an underlying systemic malignancy. While the immediate priority remains urgent surgical stabilization with a Dacron prosthetic, the presence of unexplained constitutional "red flags" justifies further investigations into potential systemic etiologies.

Keywords: multiple myeloma, secondary amyloidosis, aortic dissection, Dacron graft repair

More Than a Gut Feeling: From Irritable Bowel Syndrome to the Management of Fibromylgia

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Introduction: Fibromyalgia and irritable bowel syndrome (IBS) are functional disorders that frequently coexist. Despite their prevalence, the management of patients with this dual diagnosis remains a challenge due to lack of a clear etiology. This case is an example of how microbiome intervention can reduce somatic symptoms, illustrating the clinical significance of the bidirectional brain-gut axis.

Case presentation: A 51-year-old female patient with a history of IBS-diarrhea presented with chronic abdominal pain, diarrhea, bloating, generalized myalgia, fatigue and insomnia. Her symptoms were previously managed unsuccessfully with dietary and lifestyle changes. Upon physical examination, globular abdomen with mild tenderness in the lower quadrants and sensitivity at fibromyalgia tender points were observed. This led to the concomitant diagnosis of fibromyalgia. Baseline paraclinic explorations (ECG, abdominal ultrasound) were unremarkable except for mild hepatic steatosis. The first line pharmacological approach was initiated consisting of Titrated Amitriptyline up to 25 mg/day for fibromyalgia and a combination of Rifaximin, Trimebutine, and Alverine/Simethicone for IBS-D, but failed to alleviate symptoms. To exclude microscopic colitis, a colonoscopy with staged biopsies was performed. Based on the therapeutic resistance, the patient was enrolled in a clinical study evaluating a new microbiome-modulating formulation consisting of Gelatin Tannate and Tyndallized Acid Lactic Bacteria (2 tablets twice daily). Following a 4-week treatment course, the patient reported a reduction in the number of diarrheic episodes and abdominal discomfort, as well as the number of presentations regarding symptomatology.

Discussions: The response to microbiome-based therapy is what makes this case unique: the patient reported improvement not only in bowel habits, but also in the symptoms associated with fibromyalgia. This finding is relevant as emerging evidence suggests the role of the brain-gut axis in both IBS and fibromyalgia, where microbiome modulation and restoration of the mucosal barrier may reduce systemic low-grade inflammation and decrease central sensitization that drives chronic pain.

Keywords: Irritable Bowel Syndrome (IBS), fibromyalgia, microbiome, brain-gut axis

Beyond the Screening Gap: Synergistic Anti-VEGF and Panretinal Photocoagulation in Proliferative Diabetic Retinopathy

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Introduction: Diabetic retinopathy is a microvascular complication caused by the long-term effects of diabetes mellitus. If left untreated, it can progress to proliferative diabetic retinopathy (PDR) which is characterised by ischemia-driven neovascularisation of the retina. This case illustrates the advanced retinal vascular complications secondary to poorly controlled diabetes mellitus, emphasizing the importance of adherence to regular ophthalmological screening and a multimodal therapeutic approach.

Case Presentation: A 49 year-old male patient with long-standing type 1 diabetes mellitus (18 years) exhibits progressive, bilateral decrease in visual acuity (AVOD= 0,8 FC; AVOS= 0,9 FC). The patient's history was notable for non-compliance, with no previous ophthalmological evaluations and chronic hyperglycemia (HbA1c consistently over 11%). On examination the anterior pole of both eyes was normal. Clinical investigations, dilated fundus examination and fundus photography, revealed in the right eye infratemporal macular retinal hemorrhage, lipid exudates temporal to the macula, microaneurysms and arterial narrowing. The left eye presented retinal hemorrhages, microaneurysms and arterial narrowing with copper wiring. Extensive areas of retinal ischemia, neovascularisation and macular oedema were confirmed by paraclinical investigations such as Optical Coherence Tomography (OCT) and Angio-OCT. All investigations validated PDR. In order to promote regression of abnormal vessels, the patient was initiated on a regimen of intravitreal anti-VEGF (vascular endothelial growth factor) injections with alfibercept (Eylea). Panretinal Photocoagulation (PRP) was used subsequently to stabilise the ischemic retina.

Discussion: This case reflects the findings of the UKPDS (United Kingdom Prospective Diabetes Study), which directly correlates sustained high HbA1c levels with the rapid progression of microvascular complications. Whereas previous studies established Panretinal Photocoagulation as the gold standard, the approach used for this patient aligns with more recent literature. The CLARITY trial demonstrates that combining anti-VEGF injections with laser therapy offers superior transient visual recovery and faster clearance of intravitreal hemorrhages. The present case broadens clinical understanding by substantiating the screening gap in diabetic patients. It reinforces that for non-adherent individuals, an adjunctive PRP strategy provides more protective effect compared to anti-VEGF monotherapy. Strict systemic control of diabetes is essential for the effectiveness of these treatments and for preventing further progression of the disease.

Keywords: proliferative diabetic retinopathy; neovascularisation; anti-VEGF; panretinal photocoagulation

Management of Refractory Ascites in JAK2+ Budd-Chiari Syndrome: A Case of Post-TIPS Encephalopathy

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Introduction: Budd-Chiari Syndrome is a rare vascular liver disease caused by hepatic venous outflow obstruction, often occurring on a background of myeloproliferative disorders like Essential Thrombocythemia. While TIPS is the standard intervention for refractory ascites, post-procedural hepatic encephalopathy is rare in these patients because, unlike those with cirrhosis, they typically maintain normal liver function. We report a case where severe encephalopathy was triggered not by liver failure, but by iatrogenic and metabolic factors.

Case presentation: A 37-year-old female with Budd-Chiari syndrome secondary to Essential Thrombocythemia (JAK2 V16F positive) was admitted for recurrent episodes of grade III hepatic encephalopathy. The patient had undergone a successful TIPS procedure one month prior, which reduced the portosystemic pressure gradient from 14 mmHg to 5 mmHg and led to the complete resolution of her refractory ascites. At the current admission, physical examination revealed a stable patient with a supple abdomen and no signs of fluid retention. Laboratory results showed an elevated serum ammonia of 153, mild hyperbilirubinemia (1.32 mg/dL), and a functional TIPS confirmed by Doppler ultrasound (92 cm/sec flow velocity). Notably, Fibroscan results showed a significant improvement in liver stiffness, decreasing from 30.9 kPa pre-intervention to 12 kPa, confirming the absence of advanced cirrhosis. The didactic importance of this case lies in the emergence of HE in a non-cirrhotic patient, triggered by the maintenance of high-dose diuretics (Furosemide 80 mg and Spironolactone 200 mg daily) after the ascites had already resolved, combined with recent constipation. The symptoms disappeared completely and ammonia levels decreased to 130 following the cessation of diuretic therapy and the restoration of intestinal transit.

Discussion: This case demonstrates that in non-cirrhotic patients with Budd-Chiari syndrome, TIPS can induce hepatic encephalopathy even with preserved liver function if precipitating factors like over-diuresis and constipation are present. It emphasizes the need for a dynamic adjustment of diuretic treatment immediately following the resolution of ascites to prevent such neurological complications.

Keywords: Budd-Chiari Syndrome, TIPS, Hepatic Encephalopathy

From Paracetamol Overdose to Liver Transplant Rejection: A Complex Case of Acute Liver Failure

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Introduction: Acute liver failure (ALF) is a rare, life-threatening disorder characterised by rapid deterioration of liver function in the absence of pre-existing liver disease. Drug toxicity is a common cause of ALF, affecting the management and prognosis. Liver transplantation is the best current therapy. Immunosuppression is vital for graft acceptance.

Case Presentation: We present a 21-year-old male patient, who recently had an orthotopic liver transplantation for acute liver failure caused by a paracetamol overdose during a severe depressive episode. The patient presents with sclero-cutaneous jaundice, pruritus and diarrhoea that began two weeks prior to presentation. On examination, abdomen soft and mobile on palpation. A psychiatric evaluation was conducted, revealing that the patient has a marked emotional instability with frequent socially noncompliant behaviors, confirming his prior diagnosis: Antisocial Personality Disorder (ASPD). The patient confirmed that he has not taken the immunosuppressive treatment for the past two weeks and had reduced the doses by half two weeks prior to that. A contrast-enhanced CT scan of the thorax, abdomen, and pelvis was performed and it showed that the liver graft is mildly enlarged, consistent with ultrasound findings. He was administered Tacrolimus, Prednisone, Cellcept, hepatoprotectors and electrolyte rebalancing treatment. During hospitalization, he began experiencing nausea and vomiting, signs of hepatic rejection. Laboratory investigations revealed significantly elevated levels of total bilirubin (17,1 mg/dl), AST (209U/l), ALT (307U/l) and ALP (355U/l). Tacrolimus blood levels ranged between 5.8 and 11.4 ng/mL, 5.8 being considered below the target range for the first three months after transplantation. Liver biopsy revealed a RAI score of 5, consistent with mild-to-moderate acute rejection. Intravenous methylprednisolone 1000 mg/day was initiated for 3 days.

Discussion: This case highlights the challenges of rare transplant indications and the importance of psychosocial factors in post-transplant outcomes. The patient's limited understanding of the necessity for strict adherence to immunosuppressive therapy contributed to poor compliance, leading to post-transplant complications. Although liver transplantation is most commonly performed for end-stage chronic liver disease, particularly cirrhosis, ALF represents a rare indication. This case underscores the challenges of rare transplant indications and the importance of psychosocial factors in post-transplant outcomes.

Keywords: Liver transplantation; graft rejection; immunosuppression; ALF

Inflammatory Bowel Disease Unclassified - A difficult diagnosis

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Introduction: Inflammatory Bowel Disease Unclassified is a chronic colonic inflammatory disorder, frequently observed in pediatric patients, in which diagnostic evaluation cannot clearly differentiate between Crohn's disease and Ulcerative colitis due to overlapping features. Accurate differential diagnosis is crucial because several forms of colitis may present with similar symptoms but require distinct therapeutic approaches.

Case Presentation: A 19-year-old female with a known cholecystectomy, without medication prior to the episode, was admitted to the hospital for a clinical-biological evaluation, as well as health-related services, complaining of diarrhea with frequent haematochezia and diffuse abdominal pain. During the 3-week hospitalization, laboratory tests showed mild anemia (hemoglobin 11.1 g/dL, hematocrit 32.9%), likely secondary to chronic blood loss, which gradually normalized. Blood analysis also revealed thrombocytosis (446 $\times 10^3/\mu L$) and elevated C-reactive protein (10.3 mg/L), both consistent with an inflammatory process and responsive to treatment with mesalazine (CRP decreased to 0.93 mg/L). A colonoscopy up to the terminal ileum demonstrated vascular congestion, and biopsies revealed neutrophilic inflammatory infiltrate at the crypt level. The stool sample analysis revealed a mildly elevated level of fecal calprotectin of 80 ug/g. Rapid testing and coproculture for C. difficile were negative. Panel-PCR for bacteria, viruses, and parasites was negative.

Discussion: From the beginning, we can rule out Pseudomembranous Colitis because the tests for C. difficile are negative. Microscopic colitis is unlikely given the presence of haematochezia, while ischemic colitis is improbable due to the absence of ischemic findings on the colonoscopy. The Infectious cause can also be excluded due to the white blood cell count being normal, and the multiplex PCR for bacteria, viruses, and parasites being negative. There are also not enough facts to direct the diagnosis to Crohn's disease or Ulcerative colitis**.** Inflammatory Bowel Disease Unclassified is a diagnosis of exclusion that requires extensive investigations to rule out other causes of colitis. It is ultimately defined by inflammatory features that prevent definitive classification as either Crohn's disease or Ulcerative colitis due to overlapping characteristics.

Keywords: inflammatory bowel disease, colitis, abdominal pain, diarrhea

Dental and Cutaneous Manifestations in APC-Associated Familial Adenomatous Polyposis

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Introduction: Familial adenomatous polyposis (FAP) is an autosomal dominant hereditary cancer predisposition disorder caused by pathogenic variants in the APC gene. Clinically, the development of hundreds to thousands of adenomatous polyps located in the colon and rectum is the key characteristic of this disorder. These patients are prone to developing colorectal cancer in the absence of any prophylactic treatment. Additionally, FAP may include extraintestinal features such as osteomas, dental abnormalities, odontogenic cysts and cutaneous lesions. Gardner syndrome is a special type of FAP that includes these extraintestinal manifestations. Therefore, these manifestations represent important medical clues for further investigation and genetic testing.

Case Presentation: We report the case of a 37-year-old female presenting with severe dental anomalies, including multiple supernumerary teeth and odontogenic cysts, which led to the loss of most permanent teeth and required dental prosthetic rehabilitation. The patient also presented multiple dermoid cysts. Bearing in mind the complex clinical presentation, a genetic syndrome was suspected and genetic testing was undertaken. Next-generation sequencing identified a heterozygous pathogenic variant in the APC gene (c.1690C>T; p.Arg564Ter), thus the diagnosis of familial adenomatous polyposis was confirmed. Multiple colorectal polyps were revealed after colonoscopy, which is a classic feature of this genetic disorder. The medical management included gastrointestinal surveillance, genetic counseling and investigation for potential extraintestinal manifestations associated with APC-related disease.

Discussion: This medical case demonstrates the wide number of features that characterizes APC-associated familial adenomatous polyposis, indicating how early recognition of extraintestinal manifestations like dental anomalies and cutaneous cysts may help with the diagnosis. Even though intestinal polyposis represents the key feature of the disorder, other systemic features may prove vital in early detection. Patients with the dental phenotype of Gardner syndrome, such as supernumerary teeth and odontogenic lesions, may seek dental examination before any gastrointestinal symptom is detected. Therefore, medical education of dentists and clinicians for these elements may lead to earlier detection of affected patients, allowing early management aimed at reducing the risk of colorectal cancer.

Keywords: Familial Adenomatous Polyposis, APC Mutation, Gardner Syndrome, Dental Anomalies

Recurrent Pyogenic Liver Abscess after Whipple Procedure for Ampullary Tumor: A Challenging Clinical Course

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Introduction: Pyogenic liver abscesses are severe infections, commonly associated with biliary disease, diabetes mellitus, or immunosuppression. Altered biliary anatomy after pancreaticoduodenectomy facilitates ascending bacterial infection through the biliary–enteric anastomosis. Vascular complications such as hepatic artery stenosis may further impair hepatic perfusion and local immune defense.

Case presentation: A 68-year-old male, smoker, with a history of pancreaticoduodenectomy performed in 2017 for an ampullary tumor, presented in September 2023 with right upper quadrant pain, heartburn, and bloating. Laboratory tests showed elevated inflammatory markers and mild thrombocytopenia. B-mode ultrasound demonstrated heterogeneous hepatic lesions with anechoic areas suggestive of abscess formation. CT confirmed multiple hepatic collections involving segments V, VI, and VII. In October 2023, the patient underwent percutaneous aspiration of smaller collections and catheter drainage of larger abscesses. Culture of the aspirated material identified Klebsiella pneumoniae, susceptible to carbapenems. Intravenous meropenem 1g every 8 hours was administered for 40 days. Catheters were managed with daily saline irrigation (10 mL). Despite treatment, imaging showed incomplete resolution of the abscess cavities.In December 2023, the patient was readmitted with fever and malaise. Laboratory tests showed elevated inflammatory markers and elevated procalcitonin levels. Imaging confirmed persistent abscess cavities. A second ultrasound-guided 8 French drainage catheter was inserted into a collection in segments V–VI. Management included twice-daily saline irrigation and intra-abscess antibiotic instillation (1 mg/mL). Ultrasound also demonstrated echogenic material within the cavity, suggesting fungal colonization, and antifungal therapy with intravenous fluconazole 400 mg daily was initiated. Systemic meropenem therapy continued for 21 days. The initial catheter became obstructed and was exchanged in January 2024. Drainage catheters were removed in February after minimal output and radiological reduction of the cavities. The patient remained clinically stable during follow-up from April 2024 to August 2025. After a traumatic hip fracture in August 2025, his condition deteriorated. In September 2025, he presented again with malaise and chills and died the following day after rapid clinical deterioration.

Discussion: Pyogenic liver abscesses occur commonly in patients with biliary pathology. Altered drainage after pancreaticoduodenectomy may predispose to ascending infection and recurrent abscess formation. Hypervirulent Klebsiella pneumoniae strains have been associated with severe liver abscess syndromes and may complicate management.

Keywords: hepatic abscess, pancreaticoduodenectomy, Klebsiella pneumoniae, percutaneous drainage, biliary reconstruction

Hepatic Alveolar Echinococcosis: A Diagnostic Challenge

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Introduction: Alveolar echinococcosis is a rare but potentially life-threatening zoonotic parasitic disease caused by the larval stage of Echinococcus multilocularis. The liver represents the primary site of infection, where the parasite produces infiltrative, tumor-like lesions with locally aggressive behavior. Due to its slow progression and long asymptomatic incubation period, the disease is frequently detected incidentally or at advanced stages. For staging and assessment of disease extension, the PNM classification system is commonly used- P describes hepatic involvement, N indicates invasion of neighboring organs, and M refers to distant metastases. Radiologic evaluation plays a key role in the detection and characterization of hepatic lesions. However, the imaging appearance of alveolar echinococcosis is highly variable and may mimic primary hepatic malignancies or metastatic disease, making diagnosis challenging.

Case Presentation: A 70-year-old female patient from a rural area presented with a three-month history of intermittent abdominal discomfort localized in the epigastrium and right hypochondrium. Her medical history included arterial hypertension, ventricular extrasystoles, chronic ischemic heart disease, hypercholesterolemia, and degenerative osteoarticular disease. Initially, the symptoms were interpreted as functional dyspepsia, and treatment with proton pump inhibitors and prokinetic agents was initiated, leading to only partial and temporary improvement. Physical examination revealed grade II obesity and mild tenderness on deep palpation in the epigastric region and right upper quadrant. Cardiopulmonary examination was unremarkable, and the patient was afebrile. Imaging investigations identified multiple hepatic lesions involving both hepatic lobes. Contrast-enhanced ultrasound demonstrated heterogeneous enhancement patterns suggestive of metastasis-like lesions. Histopathological examination confirmed hepatic alveolar echinococcosis. According to the PNM classification system, the disease was staged as IIIa (P3N0M0). Long-term antiparasitic therapy with albendazole (800 mg/day) was initiated, and surgical management was considered within a multidisciplinary approach.

Discussion:
Alveolar echinococcosis is an uncommon disease, with an estimated incidence of 0.03–1.2 cases per 100,000 inhabitants. Clinical manifestations are usually nonspecific, including abdominal discomfort, fatigue, or weight loss, which often leads to delayed diagnosis. Imaging findings may resemble malignant hepatic tumors, complicating the differential diagnosis. This case highlights the importance of considering parasitic infections in the differential diagnosis of atypical hepatic lesions, particularly in patients from rural or endemic areas. Early recognition and appropriate treatment are essential to prevent progressive infiltrative growth and potentially fatal outcomes.

Keywords: Alveolar echinococcosis, Hepatic lesions, Echinococcus multiocularis, Differential diagnosis, Zoonotic disease.

When Amyloidosis Mimics Hypertrophic Cardiomyopathy: A Case Report of Resuscitated Sudden Cardiac Arrest

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Introduction: Cardiac amyloidosis is an infiltrative cardiomyopathy caused by accumulation in the heart interstitium of amyloid fibrils formed by misfolded proteins. Amyloid cardiomyopathy is an underestimated cause of heart failure and cardiac arrhythmias. Two types of amyloid commonly infiltrate the heart: immunoglobulin light chain (AL) amyloidosis and transthyretin (ATTR) amyloidosis.

Case Presentation: A 38-year-old retired male athlete patient with a history of hypertrophic obstructive cardiomyopathy (HOCM) was diagnosed following a sudden cardiac arrest due to ventricular fibrillation at a young age in 2015, which occurred during a basketball match. Secondary prevention was achieved with implantation of an implantable cardioverter-defibrillator, and alcohol septal reduction therapy was performed. Electrocardiogram showed sinus rhythm, left ventricular hypertrophy with repolarization abnormalities (negative T waves in DI, aVL, V4–V6) and QTc 447 ms. Transthoracic echocardiography revealed asymmetric septal hypertrophy (interventricular septum 30 mm), non-dilated left ventricle, preserved global systolic function, and mild mitral and tricuspid regurgitation. Given the family history of cardiac amyloidosis (mother diagnosed in 2024), genetic testing was performed. Sequencing of the TTR gene identified a variant and the patient is currently under haematology follow-up, undergoing treatment with a small-interfering RNA-based drug (patisiran).

Discussion: Although the phenotype is consistent with sarcomeric hypertrophic cardiomyopathy, the presence of a TTR gene variant and positive family history raises the possibility of transthyretin cardiac amyloidosis presenting with a hypertrophic phenotype.

Conclusion: Differentiating between primary HCM and infiltrative cardiomyopathy is critical due to implications regarding targeted therapy, cascade genetic screening, and long-term prognosis.

Keywords: cardiac amyloidosis, hypertrophic obstructive cardiomyopathy, atrial fibrillation, transthyretin amyloidosis.

Acute Post-Thyroidectomy Respiratory Failure: A Multidisciplinary Approach in Intensive Care Unit for a Case of Substernal Goiter

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Introduction: Acute respiratory failure is a rare, life-threatening complication of thyroidectomy which occurs in less than 1% of cases. One of the risk factors is substernal goiter, defined as the prolonged thyroid mass extending retrosternally into the thoracic cavity. This paper emphasizes the crucial importance of a multidisciplinary approach in the management of a case of acute respiratory failure after thyroidectomy in Intensive Care Unit (ICU) for a large, multinodular goiter.

Case Presentation: A 39-year-old female patient, with a personal history of smoking and difficult recovery from general anesthesia, diagnosed with a giant multinodular goiter, including a left retrosternal extension and clincial compressive symptoms (dysphonia, dysphagia and dyspnea on minimal effort) underwent a total thyroidectomy. During extubation, the patient developed laryngeal stridor with increased work of breathing, requiring urgent reintubation. The management of the acute hypercapnic respiratory failure in ICU included dynamic treatment, with corticosteroid therapy, protective mechanical ventilation, antibiotic therapy, non-opioid analgesia, and continuous monitoring of vital parameters and acid-base balance. Despite apparent stabilization, on the third day, the patient required an emergency tracheostomy to secure the airway after the failed spontaneous breathing trial. In the following days, the patient's condition improved significantly under the supervision of a collaborative team: the surgeon monitored the surgical site, the ICU specialist maintained hemodynamic stability, the radiologist and the ENT specialist contributed to the management strategy with their investigations, the psychologist provided emotional support to the patient. She was successfully decannulated and transferred back to the surgical unit on the ninth day, conscious, stable, with a favorable prognosis.

Discussion: This rare case emphasizes the importance of identifying risk factors (smoking, extensive goiter) and possible postoperative complications (including acute respiratory failure) to prepare both patients and clinicians, leading to better recovery outcomes.

Keywords: thyroidectomy, acute respiratory failure, Intensive Care Unit, substernal goiter, multidisciplinary

Hyperosmolar Hyperglycemic State Presenting with Acute Critical Limb Ischemia in an Elderly Diabetic Pacient: A complex ICU Case

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Introduction: Hyperosmolar hyperglycemic state (HHS) is a complication of type 2 diabetes mellitus, characterized by hyperglycemia, dehydration, and hyperosmolarity, without significant ketoacidosis. This condition increases the risk of acute ischemia due to the associated hypercoagulability state. This case outlines the therapeutic challenges of a complex clinical case in which HHS coexisted with critical lower limb ischemia in a high risk patient.

Case presentation: An 86-year-old female patient with a history of type 2 diabetes mellitus, and class II obesity was admitted to the ICU because of severe neurological decline (GCS 8) and respiratory insufficiency. Laboratory analyses revealed hyperglycemia, hyperosmolarity, hypernatremia, confirming the diagnosis of HHS. After stabilising the vital functions, the patient was diagnosed with critical ischemia of the right lower limb (absent peripheral pulses, pallor, and cold extremities). A CT angiography was ordered to assess the cause of ischemia, revealing complete occlusion of the popliteal artery and the tibio-peroneal trunk. The treatment strategy consisted of intensive fluid resuscitation (with 0.9% NaCl and 5% Dextrose solutions), continuous insulin drip (SA insulin, 1 IU/mL, titrated to glycemic control), and systemic anticoagulation with continuous heparin infusion (200 IU/mL dilution, targeting an aPTT of 50-60 seconds). In order to achieve vascularization of the affected limb, thrombectomy was performed, but proved unsuccessful. The family declined the following recomandation for major amputation. Under conservative and supportive management, the patient's metabolic status significantly improved (blood glucose of 240 mg/dL upon discharge from the ICU), and the pacient was transferred to the Diabetology department.

Discussion: The presented case is an example of critical limb ischemia, dehydration and hyperviscosity that induced HHS. Such cases are rare, having an estimated incidence of 17.5 cases/100,000 per year, highlighting the efficiency of fluid and anticoagulant management adapted to severe cardiovascular fragility in achieving metabolic remission despite the refusal of a surgical amputation.

Conclusion: This case presentation emphasises the importance of aggressive IV fluid treatment in cases where HHS may cause severe consequences through the complications associated with it, whilst also providing a prime example of the multidisciplinary consequences of ICU cases.

Keywords: Hyperglycemic Hyperosmolarity, Critical Limb Ischemia, Type 2 Diabetes Mellitus.

From Idiopathic Ascites to Malignant Peritoneal Mesothelioma: A Diagnostic Journey

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Introduction: Ascites is a frequently encountered clinical sign in hospitalized medical patients. It is defined as the pathological accumulation of fluid in the peritoneal cavity, and its etiologies are diverse, ranging from hepatic, renal, and cardiac to infectious and inflammatory conditions. While these account for most cases, the malignant origin of the ascites can still be identified, although uncommon.

Case report: An 81-year-old female presented with a distended abdomen due to a large volume of peritoneal fluid. The patient had no symptoms except for abdominal fullness, and laboratory investigations revealed only mild hypercholesterolemia (204 mg/dL), hypoglycemia, mild hypoproteinemia (6.27 g/dL) with albumin within normal limits, and subtle leukopenia. For deciding the cause of the ascites, abdominal ultrasonography, thoracic-abdominal-pelvic computed tomography, along with cardiac ultrasonography were performed, but revealed no evidence of portal hypertension, liver cirrhosis, portal vein thrombosis, right-sided heart failure, or lymphatic obstruction. Serum lipase activity was normal, excluding acute pancreatitis. Tests for lupus antibodies and QuantiFERON were negative. Demon-Meigs syndrome was excluded due to the patient's history of hysterectomy and bilateral anexectomy for a uterine fibroid. Given the broad differential diagnosis, a malignant etiology was considered, with tumor marker CA125 at the upper limit of normal. Diagnostic laparoscopy with peritoneal biopsy confirmed peritoneal mesothelioma, a rare cancer associated with asbestos exposure. Possible treatment options include chemotherapy, immunotherapy and cytoreductive surgery. However, the patient, a homemaker with no known occupational risk factors, declined treatment.

Discussion: Peritoneal mesothelioma is an aggressive malignancy with a poor prognosis. Peritoneal carcinomatosis should be considered in the differential diagnosis, however, positive immunohistochemical staining for calretinin, WT-1 and CK5/6 confirmed the tumor's mesothelial origin. Asbestos exposure remains the most common cause, but recent studies have identified erionite fibers, simian virus 40, and prior radiation therapy for Wilms tumors and lymphoma as additional risk factors. Genetic predisposition, particularly BAP1 gene mutations, is also associated with an increased risk of mesothelioma.

Conclusion: This case underscores the importance of considering malignant causes of ascites, even when traditional risk factors are absent. A comprehensive diagnostic evaluation can facilitate accurate diagnosis, although it may be time-consuming and yield unexpected findings.

Keywords: ascites, peritoneal mesothelioma, asbestos exposure, malignant origin

Congestive Heart Failure and Late Multivalvular Dysfunction Following Atrial Myxoma Resection – A Case Report

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Introduction: Atrial myxomas are the most common primary cardiac tumors, typically benign and discovered mostly by chance. Their intracardiac location and mechanical interaction with valvular structures can lead to significant hemodynamic alterations, embolic events and structural cardiac changes. Surgical excision is considered curative, but long-term cardiac remodeling and functional consequences may occur even years after tumor removal.

Case Presentation: A 72-year-old female with a history of surgically resected atrial myxoma (2018), was admitted with constrictive precordial pain, exertional inspiratory dyspnea and asthenia. Her medical history included essential hypertension, permanent atrial fibrillation, dyslipidemia and type II mellitus diabetes. Examination revealed altered general state, second heart sound accentuated in aortic area and systolic murmur in mitral and tricuspid area. Laboratory findings showed hyperglycemia, urea (47.23 mg/dL), creatinine (1.17 mg/dL), sideropenia (52.96 µg/dL), elevated NTproBNP levels, glycosuria. Transthoracic echocardiography revealed severe mitral and tricuspid regurgitation (grade IV), aortic and pulmonary regurgitation (grade I). Also, severe pulmonary hypertension and chronic pericardial involvement with a small pericardial effusion. Left ventricular systolic function was preserved (ejection fraction approximately 67%). During hospitalization, the patient received oral anticoagulant, sartans, alfa and beta blockers, loop diuretics, proton pump inhibitors, SGLT-2 inhibitors, statin, antiplatelet agents, antiarrhythmics, cardio tonics, NSAIDs, IV iron supplement. She was advised to avoid stress, intense physical activity and to respect a low-sodium, low-lipid diet.

Discussion: This case underlines the importance of long-term echocardiographic and clinical follow-up in patients with a history of atrial myxoma. Even after successful tumor resection, delayed cardiac remodeling and progressive multivalvular dysfunction may occur and contribute significantly to heart failure morbidity.

Keywords: atrial myxoma, congestive heart failure.

The complexe facade of ECG- bradyarrythmya hiding a severe case of hyperkalemia: Case Report

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Introduction: Hyperkalemia is a potentially lethal condition requiring immediate medical intervention. ECG changes are often absent or subtle; studies show that less than half of patients with potassium levels exceeding 6.0 mEq/L display typical ECG changes. Even in severe cases, a normal ECG can occur, meaning the ECG is not a reliable screening tool. The clinical priority is to stabilize and normalize potassium levels before investigating the underlying cause of the electrolyte abnormality.

Case presentation: We highlight the case of a 72-year-old male brought to the ER with dyspnea, vertigo and muscle fatigue for a week, with worsening symptoms in the days prior to admission, with a history of chronic coronary syndrome, triple coronary artery bypass graft, myocardial infarction, chronic heart failure with preserved ejection fraction and type 2 diabetes mellitus. Clinical examination revealed severe bradycardia (heart rate 30 bpm), irregular cardiac rhythm and BP 110/62 mmHg. Electrocardiography showed a junctional rhythm with a ventricular rate of 30 bpm. Laboratory investigations revealed severe hyperkalemia (7.46 mmol/L) and an elevated serum creatinine (2.64 mg/dl, eGFR 25 ml/min/1.73 m2). Echocardiography revealed preserved left ventricular ejection fraction and moderate mitral regurgitation.
The final diagnosis was severe hyperkalemia complicated by junctional bradycardia and acute kidney injury (AKI) in a patient with multiple cardiovascular comorbidities. Guideline-recommended therapy was initiated, including intravenous calcium gluconate and insulin with glucose infusion, leading to a rapid normalization of serum potassium levels and restoration of sinus rhythm.

Discussion: Severe hyperkalemia can cause significant arrhythmias even in the absence of classical ECG changes. In this case, the ECG did not show typical signs of hyperkalemia despite severe potassium elevation. AKI, together with spironolactone treatment, likely contributed to potassium retention, while the rapid restoration of sinus rhythm after correction confirmed the electrolyte disturbance as the reversible cause of the arrhythmia.

Conclusion: This case highlights that severe hyperkalemia may occur without typical ECG findings and it may present with significant bradiarrhythmias. Therefore, laboratory evaluation remains essential for identifying the underlying cause and initiating appropriate treatment, as prompt potassium correction can rapidly reverse potentially life-threatening rhythm disturbances.

Keywords: hyperkalemia, type 2 diabetes mellitus, bradycardia.

When the Details Matter: Subtle Elements of Acute Heart Failure in Patients with COPD-Case Report

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Introduction: Chronic obstructive pulmonary disease (COPD) and heart failure frequently coexist in elderly patients and share similar clinical manifestations. This overlap may complicate the diagnostic process and delay appropriate treatment. Distinguishing between COPD exacerbation and acute heart failure is therefore essential for optimal therapeutic management.

Case Presentation: We present the case of an 80-year-old male with a history of GOLD stage III COPD and arterial hypertension, transferred from a pulmonary hospital for cardiologic evaluation. The patient initially presented with a two-week history of progressive dyspnea and productive cough, initially suspected to be a COPD exacerbation. At presentation, the patient was conscious and hemodynamically stable (BP 124/96 mmHg), but tachycardic (132 bpm). Physical examination revealed mild bilateral lower limb edema and pulmonary rales. Laboratory investigations showed elevated NT-proBNP (4640 pg/ml) and leukocytosis. Electrocardiography demonstrated newly diagnosed atrial fibrillation with rapid ventricular response. Transthoracic echocardiography revealed a dilated left ventricle with severely reduced systolic function (LVEF 31%), moderate mitral, aortic and tricuspid regurgitation and signs of pulmonary hypertension. The differential diagnosis included COPD exacerbation versus acute heart failure. Elevated natriuretic peptides, echocardiographic findings and arrhythmia indicated acute heart failure with reduced ejection fraction associated with newly diagnosed atrial fibrillation. Guideline-directed medical therapy including loop diuretics, mineralocorticoid receptor antagonist, ARNI, SGLT2 inhibitor, beta-blocker, digoxin and anticoagulation was initiated. Clinical evolution was favorable, with significant improvement of dyspnea and resolution of peripheral edema.

Discussion: This case highlights the challenge of differentiating COPD exacerbation from acute heart failure in elderly patients presenting with dyspnea. Respiratory symptoms in patients with advanced COPD can mask cardiac decompensation, potentially leading to delayed diagnosis. In this case, elevated NT-proBNP, newly diagnosed atrial fibrillation and echocardiographic evidence of systolic dysfunction were key elements for establishing the correct diagnosis. Early cardiologic evaluation allowed prompt initiation of heart failure therapy and favorable clinical outcome.

Conclusion: In patients with COPD and worsening dyspnea, acute heart failure should be considered in the differential diagnosis particularly when new arrhythmias or elevated natriuretic peptides are present. Early cardiac assessment can prevent misdiagnosis and ensure appropriate therapy.

Keywords: Heart Failure, COPD, Differential Diagnosis

Navigating the Small Vessel Maze: CADASIL with Recurrent Strokes and Early Cognitive Decline

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Introduction: Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy (CADASIL) is a rare hereditary small vessel disease caused by NOTCH3 gene mutations. It is characterized by recurrent ischemic strokes, migraine with aura, psychiatric disturbances, and progressive cognitive impairment. This case illustrates the diagnostic challenge of a patient with a long-standing history of vascular events where genetic microangiopathy coexists with traditional cardiovascular risk factors.

Case Presentation: A 66-year-old male with a significant neurological history (a primary hemorrhagic-transformed ischemic stroke at age 48, left carotid endarterectomy, and recurrent ischemic events) was admitted for fluctuating sensory disturbances in all four limbs, alternating between the right and left sides, lasting minutes to hours. Additionally, he reported a lifelong history of visual disturbances, including tubular vision and diplopia, which increased in frequency over the last two years. Neurological examination revealed mild right-sided hemiparesis, exaggerated osteotendinous reflexes on the right side of the body, and significant cognitive impairment with prominent executive and memory deficits. Angio-MRI demonstrated severe leukoencephalopathy (Fazekas grade 3), chronic lacunar infarcts, and a chronic ischemic lesion in the left insula with a hemorrhagic rim. Extensive workup, including unremarkable blood tests, echocardiography, and 24-hour Holter ECG, ruled out large vessel disease, cardioembolism, and infectious or vasculitic causes. Consequently, according to the TOAST classification, the case was categorized as a stroke of other determined etiology. Later on, a CADASIL scale score of 20 ultimately confirmed the diagnosis.

Discussion: This case highlights specific CADASIL markers: cerebrovascular onset before age 50, Fazekas grade 3 leukoencephalopathy and cognitive decline disproportionate to age. Studies show that CADASIL is often misdiagnosed as multiple sclerosis, sporadic small vessel diseases, or any other similar conditions due to the fact that CADASIL occasionally presents with non-specific clinical symptoms. For example, this patient presented atypical childhood visual symptoms, unlike the 60% migraine prevalence reported by Dichgans et al. Furthermore, while Asian cohorts (Choi et al.) show predominantly ischemic events, this case is remarkable for the hemorrhagic transformation of the initial stroke, likely exacerbated by MRI-identified microbleeds. In essence, this case demonstrates that CADASIL can coexist with severe atherosclerosis, a factor that often masks the underlying genetic diagnosis.

Keywords: CADASIL, NOTCH3 gene mutations, hemorrhagic-transformed ischemic stroke, TOAST classification

Endocarditis: Acute *Staphylococcus epidermidis* Infection of an Aortic Bioprosthetic Valve – A Case Report

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Introduction: Infective endocarditis is a severe condition characterized by microbial infection of the endocardial surface, most commonly affecting native or prosthetic heart valves. Prosthetic valve endocarditis represents a serious complication associated with high morbidity and mortality. Staphylococcus epidermidis, a coagulase-negative staphylococcus, is a frequent cause of infections involving prosthetic cardiac devices due to its ability to form biofilms on artificial surfaces. In this paper, we present a case of acute infective endocarditis caused by Staphylococcus epidermidis occurring on an aortic bioprosthetic valve.

Case report: A 76-year-old female with multiple cardiovascular risk factors, including grade 3 essential hypertension, dyslipidemia and obesity; and a history of surgical implantation of a biological aortic valve prosthesis for severe aortic stenosis in May 2022, was admitted for specialized evaluation. She presented with a two-week history of febrile syndrome associated with anorexia, epigastric pain radiating posteriorly, general malaise and diarrhea. Blood cultures collected under aerobic, anaerobic, and fungal conditions became positive after 48 hours for Staphylococcus epidermidis. Targeted antibiotic therapy with vancomycin and moxifloxacin for 10 days was initiated, with subsequent addition of gentamicin and later rifampicin. Despite initial treatment, the patient developed persistent subfebrile episodes associated with elevated C-reactive protein levels (400 mg/L) and leukocytosis (23.93 mii/μL) after 12 days. Transesophageal echocardiography revealed vegetations suggestive of infective endocarditis at the level of the aortic prosthetic valve and a small 5 mm vegetation on the mitral valve. Repeated blood cultures were obtained under strict aseptic conditions. Following multidisciplinary evaluation, the patient was transferred to the intensive care unit for further management.

Discussion: Prosthetic valve endocarditis remains a severe complication associated with significant morbidity, particularly in elderly patients with multiple cardiovascular comorbidities. Coagulase-negative staphylococci, particularly Staphylococcus epidermidis, are among the most common etiological agents in prosthetic valve infections due to their ability to adhere to prosthetic material and form biofilms. These biofilms contribute to bacterial persistence and increased resistance to antimicrobial therapy. Early diagnosis through blood cultures and echocardiography, together with prompt initiation of targeted antibiotic therapy, is essential for improving clinical outcomes.

Keywords: Endocarditis; prosthetic valve; Staphylococcus epidermidis.

Concurrent Ischial and Greater Trochanter Apophysitis in a Young Athlete

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Introduction: Hip apophysitis is an overuse traction injury of secondary ossification centers that commonly affects adolescent athletes. The ischial tuberosity is one of the typical sites where apophysitis can occur, particularly in sports that require sudden acceleration and repetitive hip flexion. Greater trochanter apophysitis is rarely reported in the literature and remains an underrecognized cause of lateral hip pain. Multiple pelvic apophyses involvement at the same time is rare and can be difficult to diagnose.

Case Presentation: A 17-year-old male competitive soccer player presented with right-sided pelvic pain that began one week after an intensive training session. On examination, localized tenderness was noted over the ischial tuberosity and the lateral hip region corresponding to the greater trochanter. Pelvic magnetic resonance imaging (MRI) was performed for further evaluation. Imaging demonstrated bone marrow edema at the ischial tuberosity, extending to the insertion of the conjoint hamstring tendon, suggestive of ischial apophysitis. Additionally, bone and periosteal edema were observed at the anteroinferomedial aspect of the greater trochanter, at the insertion sites of the vastus lateralis and glutes minimus muscles, raising suspicion for greater trochanter apophysitis. The femoral heads maintained normal sphericity without evidence of avascular osteonecrosis. No joint effusion, synovitis, fractures, or tumoral lesions were identified. Based on the clinical and imaging findings, the patient was diagnosed with concurrent ischial and greater trochanter apophysitis secondary to overuse. For treatment, conservative management including rest, modification of activities, and physiotherapy was recommended.

Discussion: This case describes a rare diagnosis of simultaneous ischial and greater trochanter apophysitis. Magnetic resonance imaging plays a crucial role in the diagnosis of pelvic apophysitis by enabling the early detection of bone marrow and periosteal edema at the affected apophyseal sites and also by differentiating apophysitis from other conditions such as avulsion or stress fractures. Early MRI-based diagnosis facilitates prompt conservative management and helps prevent chronic pain or functional limitation.

Keywords: Ischial apophysitis, Greater trochanter apophysitis, Magnetic resonance imaging, Bone marrow edema, Adolescent athlete

Cystic Neutrophilic Granulomatous Mastitis Mimicking Breast Carcinoma. A case report

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Introduction: Cystic neutrophilic granulomatous mastitis (CNGM) is a rare subtype of granulomatous mastitis strongly associated with *Corynebacterium* species, even if it can be difficult or impossible to prove the evidence of corynebacterial infection.

Case presentation: We present the case of a 36-year-old patient with breast augmentation and nipple piercing that presented in the breast imaging department of the University Emergency County Hospital Cluj-Napoca with redness and tenderness of the left breast. At palpation the patient presented just above the areola, at 12 o'clock, a palpable, fixed and stiff mass. Ultrasound, performed as fist step examination revealed multiple hypoechoic, irregular and non-circumscribed masses in the area of the palpable lump, with hypervascularization and stiff at strain elastography. Mammography ruled out the presence of calcifications but showed no other changes, due to the presence of dense glandular tissue. Contrast enhanced MRI was recommended to further characterize the lesions and to accurately establish the extent of the changes. On MRI multiple rim enhancing lesions were seen, highly suggestive for malignancy. The final diagnosis was established after percutaneous biopsy and histopathological analysis. The patient was referred for surgery and six months after the removal of the entire affected area she was free of the disease.

Discussion: GNCM is a rare subtype of granulomatous mastitis. It affects parous, reproductive-aged women and is favored by the presence of foreign bodies. CNGM may be difficult or impossible to differentiate from invasive breast carcinoma based on clinical or imaging findings. The diagnosis of is often delayed due to its many potential mimickers but it should always be taken into account in young women with nipple piercing or breast augmentation.

Key words: granulomatous mastitis, mammography, ultrasound, MRI

Acute Pericardial Effusion in a Patient with Autoimmune and Infectious Risk Factors

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Introduction: Acute pericardial effusion represents a severe inflammatory condition characterized by fluid accumulation in the pericardial sac, posing a risk of cardiac tamponade. Accurate diagnosis requires clinical, echocardiographic and advanced imaging evaluation, as well as exclusion of the main autoimmune, neoplastic and infectious causes.

Case Presentation: We present the case of a 66-year-old female with a history of autoimmune thyroiditis, hypertension and atypical hepatic hemangiomas, who presented with anterior chest pain worsened by inspiration, chills, palpitations, progressive dyspnea and fatigue, following a seven-day viral prodrome. On admission, she experienced an episode of paroxysmal atrial fibrillation, medically reverted but with recurrent episodes. Transthoracic echocardiography revealed a moderate pericardial effusion (18 mm) without wall motion abnormalities and preserved systolic function. The follow-up thoracic CT confirmed significant increase in pericardial fluid disposed quasi-circumferential (34 mm) and bilateral atelectatic pulmonary consolidations. Despite conservative management, symptoms worsened, with decreased exercise tolerance. Repeat echocardiography showed increased effusion (~4 cm) with right atrial and ventricular collapse, indicating early cardiac tamponade. The case was analyzed by a multidisciplinary team, including internal medicine, cardiology and cardiovascular surgery, and a subxiphoid pericardial drainage was decided, evacuating 800 ml of fluid, resulting in rapid clinical improvement. Biochemical, cytological and microbiological analyses suggested an infectious etiology. Post-drainage echocardiography and CT demonstrated significant reduction of the effusion (<1.5 cm and 14 mm, respectively) and residual pulmonary consolidations. Postoperative course was complicated by *Clostridium difficile* enterocolitis, managed appropriately. Follow-up showed complete remission of pericardial effusion and resolution of pulmonary consolidations.

Discussion: This patient presented with a case of pericarditis with a particular clinical and etiological context, with possible infectious, autoimmune and paraneoplastic involvement, complicated by arrhythmic and infectious events and with complete imaging-documented remission. Multidisciplinary management and sequential echocardiographic and imaging monitoring were essential for the optimal management of complicated acute pericarditis in a patient with comorbidities.

Keywords: acute pericardial effusion; multifactorial etiology; atrial fibrillation.

Depression and Suicidal Ideation in an Adolescent with Multiple Sclerosis: A Case Report

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Introduction: Adolescence is a critical developmental period associated with increased vulnerability to psychiatric disorders. The diagnosis of multiple sclerosis (MS), a chronic inflammatory demyelinating disease, during this stage may significantly contribute to the onset of depression, anxiety, and suicidal behavior.

Case Presentation: We report the case of a 16-year-old adolescent girl diagnosed with relapsing-remitting MS who presented with persistent depressive symptoms and suicidal ideation. Neurological onset occurred in May 2024 with retrobulbar optic neuritis, treated with methylprednisolone, with favorable outcome. In July 2025, following motor deficits and MRI evidence of demyelinating brain and spinal lesions, MS was diagnosed. The patient was enrolled in a national MS program and treated with Fingolimod (0.5 mg/day), with favorable neurological evolution and no adverse effects. Ophthalmologic evaluation revealed residual optic nerve fiber thinning on OCT. Approximately four months after diagnosis, the patient developed depressed mood, anhedonia, low self-esteem, social withdrawal, impaired concentration, insomnia, and ruminations regarding disease progression. Psychometric evaluation revealed clinically relevant symptoms: MASC total score T=53 (upper-normal), with elevated performance anxiety (T=65), and CDI total score T=61 (above average), with marked inefficiency (T=73) and low self-esteem (T=66), including suicidal ideation. The psychosocial context included parental divorce, conflictual paternal relationship, and a history of sexual abuse. Due to fluctuating symptoms, the patient required repeated psychiatric evaluations. In January 2026, she was hospitalized for severe depressive symptoms and active suicidal ideation. During hospitalization, she received cognitive-behavioral interventions, emotional regulation strategies, and crisis management, alongside pharmacological treatment with Sertraline (25 mg/day), with favorable evolution.

Discussion: Patients with MS present a 2–3-fold increased risk of suicide, with ideation reported in up to 30% of cases. The strongest predictor is depression, as reflected in elevated CDI scores. Early disease stage represents a critical period of vulnerability, while psychosocial stressors significantly increase risk. Neurobiological mechanisms, including neuroinflammation and lesion burden, may further contribute to affective symptoms. Despite favorable neurological evolution under Fingolimod, significant psychiatric symptoms emerged, suggesting a predominantly psychosocial and reactive component. Early psychiatric screening using standardized scales (CDI, MASC) and a multidisciplinary approach are essential for suicide risk reduction and improved outcomes.

Keywords: multiple sclerosis, depression, anxiety, suicidal ideation, adolescence, comorbidity

Diagnostic and Therapeutic Challenges in Blastic Plasmacytoid Dendritic Cell Neoplasm: A Case Report

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Introduction: Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is a rare and aggressive hematologic malignancy included in the 2016 World Health Organization classification of myeloid neoplasms and acute leukemias. The disease is typically characterized by cutaneous involvement, bone marrow infiltration, CD123 expression, and potential leukemic dissemination. Due to its rarity, standardized therapeutic strategies remain limited, with treatment regimens largely extrapolated from protocols used for acute leukemias or lymphomas. This report aims to highlight the diagnostic and therapeutic challenges associated with BPDCN.

Case Presentation: A 64-year-old patient with no significant medical history presented with a rapidly enlarging tumor on the left knee, associated with multiple cutaneous lesions on the thorax and unintentional weight loss. An excisional biopsy of the knee lesion raised suspicion for BPDCN, prompting referral to our tertiary hematology center for further evaluation. The diagnostic work-up included complete blood count with differential, peripheral blood smear, iliac crest bone marrow aspirate, and bone marrow biopsy with histopathological and immunohistochemical analysis. The immunophenotypic profile demonstrated expression of CD4, CD56, and CD123, consistent with BPDCN and confirming leukemic dissemination of the disease. Following comprehensive staging, treatment with the HYPER-CVAD polychemotherapy regimen was initiated. A rapid reduction in the size of the cutaneous lesions was observed after the first treatment cycle. The patient has currently completed four of the planned eight cycles, with the initial knee tumor regressing to a residual hyperpigmented plaque.

Discussion: BPDCN accounts for approximately 0.44% of hematologic malignancies and remains a diagnostically challenging entity due to its rarity and overlapping clinical features with other hematologic neoplasms (4). Currently, no universally accepted standard of care exists, and treatment approaches frequently rely on chemotherapy regimens used for acute leukemias or lymphomas, followed by hematopoietic stem cell transplantation in eligible patients. Recent therapeutic advances include the development of targeted therapies such as Tagraxofusp, a CD123-directed cytotoxin, which has demonstrated improved clinical outcomes compared with conventional chemotherapy. This case highlights the diagnostic complexity and therapeutic limitations associated with BPDCN and underscores the importance of early recognition and access to targeted therapies, which may significantly improve patient outcomes.

Keywords: Blastic plasmacytoid dendritic cell neoplasm, cutaneous lesions, leukemic dissemination

The Shepherd's Diemma: Cryptogenic Multi-Territorial Stroke and the Hidden Link to Neuroborreliosis.

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Introduction: Acute ischemic stroke (AIS) is a leading cause of disability worldwide. Although large-artery atherosclerosis and cardioembolism are the two most prevalent etiologies, roughly 30-40% of cases remain "cryptogenic" according to the TOAST classification. Rare infectious agents, notably Borrelia burgdorferi, are often unrecognized and may cause ischemia secondary to cerebral vasculitis. This case highlights the diagnostic dilemma posed by a multi-territory stroke in a patient with substantial occupational tick exposure, supporting consideration of neuroborreliosis despite conventional risk factors.

Case Presentation: A 61-year-old shepherd (high tick-borne disease risk), presented with right-sided hemiparesis, severe motor aphasia and dysphagia. His medical history included hypertension, chronic obstructive pulmonary disease and chronic alcohol consumption. Neurological examination revealed a NIHSS score of 15, with right spastic hemiparesis and asymmetric facial diplegia. Brain MRI identified acute-to-subacute ischemic lesions in multiple vascular territories: the left periventricular region (middle cerebral artery territory) and the right posterior temporal region (posterior cerebral artery territory). Despite an embolic-appearing, multi-territory pattern, comprehensive workup with ECG and CT angiography identified no definitive cardioembolic or large-vessel etiology. Notably, laboratory investigations revealed positive serum anti-Borrelia IgG antibodies. Although the cerebrospinal fluid analysis showed no pleocytosis or biochemical abnormalities, the clinical context and occupation supported suspicion of Borrelia-related vasculitis.

Disscusion: According to the TOAST criteria, this case falls into Category 5 (Stroke of Undetermined Etiology), given the absence of an identifiable source, despite an embolic radiographic pattern. Nevertheless, positive Borrelia serology in the context of high-risk occupational tick exposure points toward a plausible alternative etiology. Literature suggests that neuroborreliosis accounts for approximately 0.3–1% of AIS cases through a mechanism of infectious vasculitis. While the absence of CSF pleocytosis is atypical in acute neuroborreliosis, several studies have reported "Lyme-associated vasculitis" where ischemia occurs without significant inflammatory changes in the CSF, particularly in late-stage or localized presentations. This case broadens the differential diagnosis of cryptogenic stroke by highlighting the value of exposure-guided infectious testing in high-risk occupations, thereby avoiding misclassification and enabling appropriate antibiotic treatment in addition to standard secondary prevention.

Keywords: cryptogenic stroke, neuroborreliosis, acute ischemic stroke

To Be or Not to Be a Thrombus: A Diagnostic Challenge

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Introduction: Paraneoplastic etiology accounts for up to one third of venous thromboembolism (VTE) episodes in the general population. Patients with malignancies have up to a nine-fold increased risk of thromboembolic events, which may occasionally precede the diagnosis of cancer. Furthermore, metastatic cardiac tumors are significantly more common than primary cardiac tumors. However, in certain cases, establishing the underlying etiology may remain challenging.

Case Presentation: A 46-year-old patient with a history of pulmonary thromboembolism (PTE) was admitted for dyspnea on minimal exertion and fatigue. His history includes PTE, superior vena cava (SVC) thrombosis and mediastinal adenopathic block. The patient was on treatment with Rivaroxaban 20 mg, Aspirin 75 mg and Atorvastatin 20 mg. At admission, the patient was hemodynamically stable. ECG showed sinus rhythm, HR = 75 bpm, QRS axis= –50°, RBBB, and negative T waves in V1–V2. Transthoracic echocardiography revealed a large, inhomogeneous mass measuring 70/50 mm, located in the right atrium (RA), almost completely occupying it and prolapsing into the right ventricle (RV). Transesophageal echocardiography additionally demonstrated a dilated SVC containing echogenic material. Furthermore, an intrapericardial echogenic mass measuring 21/11 mm was identified near the RV. To further clarify the etiology, cardiac and thoracic CT angiography was performed, revealing an inhomogeneous mass extending into both brachiocephalic veins, completely occupying the SVC, prolapsing into the RA and RV, and appearing entirely intraluminal. The mass showed no contrast enhancement and no density change during image acquisition, suggesting an avascular lesion. Additionally, multiple mediastinal lymphadenopathies were identified with dimensions up to 30 mm.

Discussion: Malignancy is one of the leading causes of anticoagulation treatment failure. In the context of a pre-existing malignant condition, a paraneoplastic thrombosis appears to be the most plausible scenario in this case. However, considering the size of the mass, its rapid progression under oral anticoagulant therapy, and the invasion of the SVC, brachiocephalic veins, and right heart chambers, a malignant etiology cannot be excluded. This case highlights the diagnostic challenge of distinguishing massive intracardiac thrombosis from malignant invasion in oncologic patients and apparent anticoagulation failure.

Keywords: pulmonary thromboembolism; malignancy; anticoagulant therapy

Arterial Hypertension and the Risk of Recurrent Aortic Aneurysm in the Context of Chronic Inflammation in Psoriasis

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Introduction: Arterial hypertension (HTA) is the primary determinant of structural remodeling and systemic endothelial dysfunction, exerting chronic mechanical stress that induces the degradation of elastin fibers and the stiffening of the aortic wall. This structural vulnerability mediates a predisposition toward aneurysmal ectasia, dissection, or accelerated atherosclerosis. Psoriasis is defined as an immune-mediated systemic inflammatory condition characterized by a disruption of the cytokine axis. Beyond the cutaneous phenotype, this pathology constitutes an independent risk factor for cardiovascular comorbidities by propagating pro-inflammatory mediators into the general circulation, thereby weakening the extracellular matrix of the aortic media.

Case Presentation: We present the case of an 82-year-old male with a complex accumulation of risk factors (age, male sex, smoking, hypertension, chronic kidney disease), psoriasis, and an abdominal aortic aneurysm previously treated via an endovascular procedure (aorto-bi-iliac stent). The patient presented to the emergency department for atypical chest pain, inspiratory dyspnea, and uncontrolled blood pressure values (BP = 160/100 mmHg). The clinical examination revealed extensive psoriasiform skin lesions and signs of pulmonary stasis (basal subcrepitant rales). Paraclinical investigations highlighted: Electrocardiogram – Ischemic-lesion changes in the anterolateral territory, in the absence of myocardial cytolysis enzyme dynamics; Echocardiography – Concentric left ventricular hypertrophy, moderate systolic and diastolic dysfunction, and calcifications of the aortic annulus; Aortic CT-Angiography – Excluded a dissection and documented the presence of calcified parietal atheromatous plaques and a 6 cm aneurysmal dilation with localized parietal thrombosis at the level of the aortic arch and the descending thoracic portion. Therapeutic management aimed at hemodynamic stabilization through the combined administration of beta-blockers, calcium channel blockers, I_f channel inhibitors, antiplatelets, and statins, with a further endovascular intervention still required.

Discussion: The presented case underscores the association between hypertensive mechanical stress and the chronic cytokine aggression found in psoriasis. This interaction accelerates the structural degradation of the aorta, necessitating a shift in clinical management. It must be emphasized that the approach to patients with psoriasis should extend beyond the dermatological sphere, integrating rigorous cardiovascular screening protocols and aortic imaging monitoring strategies.

Keywords: arterial hypertension, aortic aneurysm, psoriasis

Spontaneous Pneumothorax in Idiopathic Pulmonary Fibrosis with Coexisting Emphysema: A Challenging Clinical Case

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Introduction: Idiopathic pulmonary fibrosis (IPF) is a chronic, progressive fibrosing interstitial lung disease associated with irreversible structural remodeling, progressive gas exchange impairment, and poor prognosis. The coexistence of pulmonary fibrosis and emphysema—defined as combined pulmonary fibrosis and emphysema (CPFE) syndrome—is increasingly recognized as a distinct clinical entity characterized by relatively preserved lung volumes but severely reduced diffusing capacity and frequent pulmonary hypertension. Spontaneous pneumothorax is an uncommon yet clinically significant complication in this population, particularly in advanced disease stages. We present a case of IPF with coexisting emphysema complicated by spontaneous pneumothorax, emphasizing the diagnostic and therapeutic challenges in a patient with markedly impaired respiratory reserve.

Case Presentation: A 79-year-old former smoker (approximately 40 pack-years) with prolonged occupational exposure to dust and exhaust fumes, known with IPF under antifibrotic therapy (nintedanib) and chronic respiratory failure requiring long-term oxygen therapy, was admitted for progressive exertional dyspnea, fatigue, and unintentional weight loss. Comorbidities included GOLD stage IV COPD, severe pulmonary hypertension, ischemic heart disease with prior myocardial infarction, and NYHA class III heart failure. High-resolution computed tomography revealed a usual interstitial pneumonia (UIP) pattern associated with giant emphysematous bullae and spontaneous pneumothorax. Pulmonary function tests demonstrated relatively preserved spirometric values (FVC 86%, FEV1 86%) but severely reduced diffusing capacity (DLCO 18–21%) with marked exertional desaturation. The patient received oxygen supplementation, systemic corticosteroids, bronchodilators, and continuation of antifibrotic therapy, under multidisciplinary supervision.

Discussion: CPFE syndrome is characterized by a dissociation between lung volumes and gas transfer capacity, often resulting in disproportionate hypoxemia. Spontaneous pneumothorax, although relatively rare in IPF, may arise from rupture of emphysematous bullae or fragile fibrotic subpleural regions. In patients with severely reduced DLCO and established pulmonary hypertension, this complication significantly increases morbidity and poses complex management decisions. This case highlights the vulnerability of structurally altered lungs and underscores the need for vigilant monitoring and individualized therapeutic strategies in advanced interstitial lung disease.

Keywords: idiopathic pulmonary fibrosis; combined pulmonary fibrosis and emphysema; spontaneous pneumothorax; diffusion impairment; respiratory failure.

The Exophytic Giant: An Atypical Sigmoid Colon Adenocarcinoma

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Introduction: Although sigmoid adenocarcinomas are one of the most common types of colorectal cancer, they usually manifest as an endoluminal, stenosing lesion. An exophytic, expansive growth pattern is very rare, having been reported only a handful of times in the literature.

Case presentation: A 57-year-old male presented to the clinic with alternating diarrhea and constipation, loss of appetite, weight loss of five kilograms in the last two months, night sweats, anal pain and dull lower-back pain radiating to both lower limbs. He has a medical history of lumbar discopathy. Physical examination revealed a palpable mass in the left lower quadrant, rectal prolapse and generalized pallor. Laboratory results revealed systemic inflammation. An abdominal ultrasound showed an irregular tumoral mass located posterior to the rectum and sigmoid colon with internal vascular signal and rectal invasion. A colonoscopy was performed, which raised the suspicion of a GIST (gastrointestinal stromal tumor) or an adenocarcinoma and multiple biopsies were ordered. Blood tests showed both elevated CEA (carcinoembryonic antigen) levels, suggesting a malignant tumor and normal PSA (prostate-specific antigen) levels, which excluded a prostate-related growth. MRI and contrast CT examination showed a giant exophytic sigmoid mass (90/80/140 mm in size) that has invaded the pelvis. It compressed the bladder, small intestines, sigmoid colon (without signs of intestinal occlusion) and the ureter. After histopathological examination of biopsy tissue, a diagnosis of locally advanced sigmoid adenocarcinoma with left ureterohydronephrosis and secondary peritoneal and nodal involvement was made. Due to its size and regional invasion, the tumor was deemed unresectable. Genetic testing revealed the tumor to be MSI-H (microsatellite instability – high), dMMR (DNA mismatch repair deficient) – pharmacological therapy was initiated with pembrolizumab. The patient is still under medical observation, but his evolution has so far been favorable.

Discussion: This case stands out not only because of the size of the tumor, but also because of its histological type - this type of exophytic growth pattern in colorectal cancer is usually seen in GISTs. Thus, the differential diagnosis of a giant, exophytic, non-obstructing tumor of the sigmoid colon should always include the possibility of an adenocarcinoma.

Keywords: exophytic colorectal adenocarcinoma, giant pelvic mass, sigmoid colon cancer

Subacute Thyroiditis Following COVID-19 Vaccination: A Case of ASIA Syndrome

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Introduction: Subacute thyroiditis (SAT), also known as de Quervain thyroiditis or granulomatous thyroiditis, is a self-limited inflammatory thyroid disease, often caused by viral infections. It typically presents with painful thyroid enlargement and systemic symptoms, such as fever. The condition often affects women more often than men and frequently occurs in the third to fifth decades of life. SAT is associated with viruses such as mumps, measles, Coxsackie virus, Epstein-Barr virus, adenovirus, influenza virus, and more recently SARS-CoV-2 virus. The clinical course usually involves three stages: hyperthyroidism, euthyroidism, hypothyroidism, and recovery of thyroid function. Histologically, it is characterized by massive destruction of thyroid follicles and multinucleated giant cells, leading to granulomatous inflammation.

Case Presentation: We report the case of a 47-year-old male patient presenting to the endocrinology clinic, complaining of anterior cervical pain, accentuated by palpation, fever for approximately two weeks and excessive sweating. Approximately 6 months ago, he was vaccinated against SARS-CoV-2. Laboratory investigations showed elevated FT4 (28.24 pmol/L) and suppressed TSH (0.009 µIU/mL), consistent with thyrotoxicosis, along with inflammatory marker elevation: fibrinogen 743.91 mg/dL, ESR 39 mm/h, CRP 37.59 mg/dL). Anti-TPO antibodies were within normal limit. The ultrasonography investigation revealed a diffusely inhomogeneous thyroid with hypoechoic areas. Doppler examination determined increased peripheral vascularization, suggestive of diffuse inflammatory swelling. The positive diagnosis was subacute thyroiditis (SAT), grade II goiter, hyperthyroidism. Treatment consisted of physical and mental rest, corticosteroid therapy (Prednisone with progressive dose reduction for one month.)

Discussion: Subacute thyroiditis is generally a self-limited disease that responds well to steroid therapy. Although it is often associated with viral infections, cases without a clear viral trigger have been reported. In this case, the patient had no known viral infection but had been vaccinated against COVID-19 six months earlier. Recent studies have described thyroid dysfunction, including SAT, following SARS-CoV-2 vaccination. This association may be explained by the ASIA syndrome (Autoimmune/Inflammatory Syndrome Induced by Adjuvants), in which immune stimulation after vaccination may trigger inflammatory or autoimmune conditions. Therefore, post-vaccination SAT should be considered in patients presenting with compatible symptoms.

Keywords: Subacute thyroiditis, ASIA syndrome, SARS-CoV-2, Vaccination, Viral infection.

From Hypercalcemia to 7Q11.23 Deletion: A Case of Williams–Beuren Syndrome

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Introduction: Williams–Beuren syndrome (WBS) is a rare neurodevelopmental disorder caused by a heterozygous microdeletion at 7q11.23, typically arising de novo and including the *ELN* gene. This genomic alteration results in a characteristic craniofacial phenotype, a distinctive cognitive–behavioral profile, and variable multisystem involvement.

Case Presentation: We present a 1-year-old girl with global developmental delay, hypotonia, elfin facies, feeding difficulties, and failure to thrive, with an unremarkable family history except for maternal autoimmune thyroiditis. Initial laboratory investigations revealed severe hypercalcemia of 17.9 mg/dL (reference range: 8.8–10.8 mg/dL) with suppressed parathyroid hormone levels. Clinical evaluation was complemented by extended biochemical testing. Cytogenetic analysis identified 46,XX.ish del(7)(q11.23), and chromosomal microarray confirmed arr[GRCh38] 7q11.23(73229598_74727155)x1, consistent with WBS.

Discussion: The patient received supportive care and metabolic management, including administration of zoledronic acid (0.025 mg/kg), achieving normalization of serum calcium and significant clinical improvement. Psychomotor developmental delay persists, although gradual progress is noted under multidisciplinary monitoring.

Conclusion: This case underscores the critical importance of early molecular diagnosis of a de novo 7q11.23 microdeletion in enabling timely, personalized management of Williams–Beuren syndrome.

Keywords: Williams–Beuren syndrome; 7q11.23 microdeletion; de novo mutation; chromosomal microarray.

Acknowledgements: We thank the patient and her family for their cooperation.

Misleading Otologic Symptoms and Melena in an Elderly Patient: A Case of Nasopharyngeal DLBCL

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Introduction: Extranodal Diffuse Large B-Cell Lymphoma (DLBCL) in the nasopharynx is a rare but serious condition due to its aggressive nature. Its significance comes from a confusing presentation that can be mistaken for more common illnesses. This case highlights the importance of performing an early biopsy in unusual upper airway blockages. Management of the case was greatly influenced by the patient's long-term ENT symptoms and rapid tumor growth.

Case Presentation: A 77-year-old man visited the ENT department with right-sided tinnitus and hearing loss. His medical history included prostate adenocarcinoma, which was treated and irradiated in 2022, as well as ischemic heart disease and other pathologies. During the initial clinical exam via rhinoscopy, doctors found a tumor on the right side of the nasopharynx, invading the Rosenmüller fossa and torus tubarius. An MRI later revealed a mass measuring 20x36x38 mm that infiltrated the lateral nasopharyngeal wall. The tumor extended into the parapharyngeal space, invaded the prevertebral muscles, the palatal velum, the medial pterygoid muscle, the right longus capitis muscle and extended toward the skull base, causing significant narrowing of the Eustachian tube. Suspecting cancer, doctors performed an endoscopic biopsy of the nasopharyngeal mass under analgosedation. Due to episodes of melena, an upper gastrointestinal endoscopy was conducted, revealing an exulcerated, fragile proliferative mass on the greater gastric curvature, which was also biopsied. Histopathological analysis of the nasopharyngeal tissue showed a dense growth of large lymphocytes, raising suspicion of lymphoma. Immunohistochemical staining was done for a conclusive diagnosis. The tumor cells showed strong positivity for CD20 and Bcl2, while being negative for CD10 and Bcl6. The Ki67 index was notably high at 75%. These findings confirmed the final diagnosis of Extranodal DLBCL of the nasopharynx.

Discussion: This case describes a 77-year-old man with a rare nasopharyngeal extranodal DLBCL that presented misleadingly as unilateral hearing loss. While research often connects such masses in older patients to carcinomas, this case underscores lymphoma as a significant differential diagnosis for unusual ear-related symptoms. Complicated by a bleeding gastric mass occurring simultaneously, this case broadens our understanding of systemic presentations and underscores the need for early multidisciplinary biopsy and immunohistochemical profiling.

Keywords: Diffuse Large B-Cell Lymphoma (DLBCL), Extranodal lymphoma, Nasopharyngeal neoplasms, Immunohistochemistry, Atypical presentation

Unresponsive to Bulevertide, the only available medication against HDV- a case report

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Introduction: HDV is a defective RNA pathogen that requires the presence of HBV for replication. Chronic HDV infection accelerates the progression of liver disease, leading to severe necroinflammation, cirrhosis, and an increased risk of hepatocellular carcinoma. Bulevirtide is currently the only approved therapy targeting HDV entry into hepatocytes.

Case report: We present the case of a 38-year-old male known with chronic hepatitis B infection, under Tenofovir treatment, who presented with myalgia, non-specific abdominal pain, jaundice, and asthenia. Initial laboratory findings revealed elevated liver enzymes (GOT, GPT >100 U/L), hyperbilirubinemia with predominantly conjugated bilirubin, and an increased INR (3). Serology was negative for HAV and HEV. Abdominal ultrasound suggested acute viral hepatitis superimposed on chronic liver disease. At follow-up evaluation 4 months later, serological testing confirmed chronic HBV infection (HBsAg positive, anti-HBc positive, anti-HBe positive, HBeAg negative), with negative markers for HCV and HIV. Transient elastography, Fibroscan, showed liver stiffness of 9.2 kPa, consistent with significant fibrosis (F3 stage). Given the suspicion of HDV superinfection, Bulevirtide therapy was initiated. Six months later, follow-up evaluation showed persistent symptoms and rising HDV RNA levels, suggesting lack of virological response. Imaging studies revealed a hydropic gallbladder with microlithiasis but no biliary obstruction. Second FibroScan showed a slight decrease in liver stiffness (8.6 kPa, F2). Due to the discordance between clinical evolution and treatment response, a liver biopsy was performed. Histopathological examination revealed portal and lobular plasmocytic infiltration, raising suspicion of an associated autoimmune hepatitis.

Discussion: Bulevirtide has demonstrated efficacy in reducing HDV viral load in most patients, however non-response remains a rare phenomenon. In this case, the lack of virological response, despite appropriate therapy, suggests a more complex underlying mechanism. The presence of plasmocytic infiltration on histopathology raises the possibility of an overlapping autoimmune hepatitis, which may contribute to disease progression and reduced therapeutic response. Additionally, the patient exhibited a progressive loss of response to both Tenofovir and Bulevirtide, further supporting our hypothesis.

Conclusion: This case highlights a rare instance of non-response to Bulevirtide in chronic HDV infection and suggests that an underlying autoimmune hepatitis may influence treatment efficacy.

Keywords: Bulevirtide, HDV, HBV, chronic hepatitis, treatment resistance

The Pulmonary-Vascular Link: A Journey from DILD to Vasculitis

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Introduction: Diffuse interstitial lung disease (DILD) represents a group of complex disorders that cause inflammation and then, fibrosis, of the lung interstitium. Vasculitis is a group of autoimmune disorders characterized by blood vessel inflammation affecting both arteries and veins; this process cause vessels to thicken, narrow, or weaken, which result in a restriction of the blood flow and leading to organ damage.

Case Presentation: We present the case of an 80-year-old female, a lifelong non-smoker. Her clinical profile was characterized by multiple comorbidities, including type 2 diabetes mellitus, autoimmune thyroiditis, and chronic cardiac pathology. The patient presented with significant asthenia, a persistent non-productive cough and grade 2 dyspnea on the mMRC scale. While the pulmonary auscultation revealed minimal abnormalities, high resolution computed tomography (HR-CT) identified distinct fibrotic patterns. Despite the initiation of antifibrotic therapy following documented progression over 3 month period, treatment had to be discontinued within weeks due to the onset of severe drug-induced toxic hepatitis. Later checks showed that the pulmonary lesions had stabilized. The lack of progression, along with new episodes of epistaxis led to reconsidering the initial diagnosis. The clinical focus shifted from an interstitial lung disease toward a systematic vasculitis.

Discussion: Distinguishing between DILD and vasculitis is challenging, as vasculitis often mimics fibrotic lung pathology. This case demonstrates that a successful diagnosis depends on a multidisciplinary approach: clinical signs, imaging and immunology are essential. Furthermore, antifibrotic therapy demands strict oversight, even when it is the standard intervention.

Keywords: DILDs, Vasculitis, Drug-Induced Hepatitis

SURGICAL SCIENCES ABSTRACTS

SURGICAL SCIENCES. ORIGINAL STUDIES

Peripheral Arterial Disease Assessment Using the Ankle–Brachial Index: A Comparative Study by Gender

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Background: Peripheral arterial disease (PAD), as a clinical manifestation of systemic atherosclerosis, is associated with a significant risk of both limb loss and mortality. The ankle–brachial index (ABI) is widely recognized as a reliable parameter for assessing the PAD; however, the current body of literature provides limited evidence regarding potential sex-related differences in the severity of PAD.

Objectives: To analyze sex-related differences in ABI values in patients with PAD.

Materials and Methods: This retrospective study included 63 patients diagnosed with PAD who underwent revascularization procedures, corresponding to a total of 63 treated lower limbs. The severity of PAD was assessed according to the Rutherford classification, and ABI was determined using the standard measurement method.

Results: The median age of the study population was 70 years (25-75% IQR, 48–88), and 50 patients (75%) were male. The left lower limb was involved in 54% of cases. Advanced stages of chronic limb-threatening ischemia (CLTI), corresponding to Rutherford classification for peripheral arterial disease categories 5 and 6, characterized by the presence of ischemic lesions of the lower limbs, were identified in 10 women (59%) and 28 men (56%). Among patients with Rutherford category 5 CLTI, the ABI values were comparable between sexes: 0.42 (25-75% IQR 0.35–0.55) in women and 0.44 (25-75% IQR 0.22–0.57) in men. In contrast, Rutherford category 6 CLTI was observed exclusively in male patients, with a median ABI of 0.39 (25-75% IQR 0.26–0.50). Overall, ABI values were slightly higher in women than in men, with median values of 0.41 (25-75% IQR 0.31–0.50) and 0.35 (25-75% IQR 0.25–0.50), respectively ($p = 0.05$).

Conclusion: Although women and men showed similar proportions of category 5 and 6 CLTI, women appeared to develop more advanced ischemic lesions despite relatively less severe impairment of arterial perfusion. This observation may indicate that CLTI in women occurs at comparatively lower levels of hypoperfusion. Further confirmation will require larger prospective studies.

Keywords: ankle–brachial index, peripheral arterial disease, Rutherford classification

Predictors of Conversion in Laparoscopic Cholecystectomy: A Retrospective Analysis of 150 Cases

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Introduction: Laparoscopic cholecystectomy is the gold standard for treating biliary pathology, however, severe inflammatory changes often necessitate conversion to open surgery. The significance of this research lies in identifying preoperative markers that can predict surgical difficulty and the likelihood of conversion.The hypothesis is that an increased gallbladder wall thickness, measured via preoperative ultrasound, will significantly increase the risk of mid-surgical conversion. This study aims to evaluate clinical and morphological predictors to optimize surgical planning.

Methods and Materials: The researcher conducted a retrospective study on 150 patients presenting with biliary pathology at Municipal Clinical Emergency Hospital of Timișoara. Data processing involved a comparative analysis of preoperative ultrasound findings, laboratory markers, and intraoperative complexity using the Nassar Operative Difficulty Scale. Statistical significance was determined using t-tests to compare outcomes between successful laparoscopic cases and those requiring conversion to open surgery.

Results: From a cohort of 150 patients who presented at Municipal Hospital, 107 underwent laparoscopic surgery, 17 classic surgery, and 17 required conversion. The study group had a mean age of 58.9 years and a mean ASA score of 2.46. Data analysis confirmed the hypothesis: significant differences were identified between the laparoscopic and conversion groups regarding preoperative gallbladder wall thickness (5.67 mm vs. 9.25 mm; $p=0.039$) and the intraoperative Nassar Scale score (2.76 vs. 3.94; $p<0.001$). While inflammatory markers like CRP were higher in the conversion group (132.6 mg/L vs. 96.8 mg/L), this difference did not reach statistical significance ($p=0.437$). Postoperative complications (Clavien-Dindo) were recorded in 12% of cases, with a mean postoperative stay of 3.67 days.

Conclusion: This study confirms that gallbladder wall thickness and high Nassar Scale scores are the most reliable predictors for conversion, superseding inflammatory markers like CRP. A preoperative wall thickness exceeding 9 mm should alert the surgical team to a high probability of conversion, enabling better risk stratification and resource allocation. Consistent with existing literature, our findings reinforce that sonographic measurement of gallbladder wall thickening is a critical, sensitive indicator of intraoperative difficulty and the potential need for laparotomy.

Keywords: laparoscopic cholecystectomy, surgical conversion, Nassar score

SURGICAL SCIENCES. REVIEWS / META-ANALYSES

Fluorescence-Guided Hepatectomy using Indocyanine Green: more than meets the eye

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Background: Achieving R0 resection is crucial in liver surgery for primary or metastatic tumors. Accurate intraoperative identification of tumor margins ensures complete resection while preserving liver parenchyma. Preoperative imaging like CT and MRI is accurate but may miss small or subcapsular lesions. Intraoperative ultrasound is highly sensitive, especially for deep tumors, while indocyanine green (ICG) fluorescence imaging has recently emerged as a complementary tool.

Objective: The aim of this review is to evaluate the role of indocyanine green fluorescence imaging as an adjunct tool during hepatic resections and its potential contribution to improving R0 resection rates.

Methods and Materials: A focused literature review was conducted using biomedical databases including PubMed, ScienceDirect and Nature. The search strategy included combinations of the terms indocyanine green, fluorescence guided liver surgery, hepatectomy and liver metastases. A total of 28 potentially relevant publications were initially identified. After removal of duplicate records, titles and abstracts were screened and 14 articles were selected for full-text evaluation. Clinical studies investigating intraoperative ICG fluorescence imaging during hepatic resections and reporting data regarding surgical margin status or R0 resection rates were included. Experimental studies, small case reports and articles not reporting surgical outcomes were excluded. Also, studies regarding improved tumor detection were excluded as they were not in the topic of this paper. After applying these criteria, 12 studies were included in the final analysis.

Results: ICG fluorescence imaging can detect additional superficial or subcapsular malignant hepatic lesions missed on preoperative imaging, with sensitivity over 90% for superficial tumors and specificity between 70–85% due to fluorescence in regenerative nodules or cholestatic areas. Its penetration depth is limited to 5–10 mm, so intraoperative ultrasound remains essential for deep lesions. Lack of standardized ICG protocols (dose and timing) may affect visualization. Overall, integrating ICG fluorescence can help delineate surgical margins and may improve R0 resection rates.

Conclusions: Indocyanine green fluorescence imaging represents a valuable adjunct in contemporary hepatobiliary surgery. Although it cannot replace intraoperative ultrasound for detecting deep hepatic lesions, it may assist surgeons in identifying superficial tumors and defining surgical margins, contributing to improved rates of complete tumor resection.

Keywords: hepatectomy; Indocyanine green fluorescence, R0 resection, hepatic resections

Shaping Neonatal Pulmonary Circulation: Ductal Stenting vs. Blalock–Taussig-Thomas Shunt: A Systematic Review

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Background: Neonates with duct-dependent pulmonary blood flow require early palliation to ensure adequate systemic-to-pulmonary oxygenation. While the Blalock–Taussig–Thomas shunt (BTTS) is the standard treatment practice, arterial duct stenting (ADS) has emerged as a less invasive alternative. This review compares the efficacy, safety and cost-effectiveness of both strategies.

Materials & Methods: Through an extensive search performed on PubMed, ScienceDirect and Google Scholar, articles from the last 10 years were selected, using the keywords: "Blalock–Taussig Shunt", "Ductal Stent" and "Pulmonary". Studies were eligible if they reported both ductal stenting and surgical shunt approaches in neonates with duct-dependent pulmonary circulation. Inclusion criteria were mortality, complications, LOS (length of stay), costs and interstage outcomes. Studies were excluded if they did not meet any of these criteria or presented overlapping data. Risk of bias was not assessed. The review followed PRISMA guidelines.

Results: A total of 80 articles were title-screened through database searches. After the initial evaluation, 35 studies then underwent full-text assessment, with 8 cohort studies meeting the eligibility criteria and being included in the analysis. (n=2962; 2074 BTTS vs. 888 ADS). Most studies reported statistically comparable mortality rates between BTTS and ADS. Rivera-Parrado et al., 2025 found no significant association between procedure type and mortality ($p = 0.135$). Ho et al., 2025, in a cohort limited to patients with Tetralogy of Fallot, observed similar mortality rates between strategies ($p = 0.210$). However, complications rates were higher following surgical shunt among the analyzed studies (Rivera-Parrado et al., 2025, $p<0.001$). Lemley et al., 2023 reported shorter ICU (Intensive Care Unit) and total hospital LOS in the ADS group ($p=0.03$ and $p<0.01$, respectively). The previous study also found lower hospitalisation costs in favor of ADS ($p<0.01$). Nicholson et al., 2020 found no significant differences in interstage somatic growth ($p=0.545$).

Conclusions: Ductal stenting is a safe and effective alternative to the Blalock–Taussig-Thomas shunt, being associated with fewer complications, shorter hospital stay and lower costs without compromising survival or somatic growth. While BTTS remains viable, ADS should be considered as a generally safe palliative strategy. Further multicenter studies are needed to consolidate these findings.

Keywords: Blalock–Taussig-Thomas Shunt, Ductal Stent, Neonatal Palliation, Cyanotic Heart Disease

Shaping the Future of Bariatric Surgery: Sleeve vs. Bypass-Which Way Leads to Better Outcomes?

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Background: Gastric sleeve (SG) and Roux-en-Y gastric bypass (RYGB) are two of the most widely adopted bariatric procedures for the management of morbid obesity.

Objectives: The purpose of this study is to compare the efficacy, metabolic outcomes, and postoperative complication rates of these procedures.

Materials and methods: PubMed databases were systematically searched for articles published in the last 10 years using the phrases: "gastric bypass", "gastric sleeve", "laparoscopic surgery". The inclusion criteria consisted of comparisons between gastric bypass and gastric sleeve surgery and investigations based on patients with morbid obesity. The excluding criteria were based on overlapping studies and those focused on hormonal causes. PRISMA guidelines were used for data synthesis and bias risk was not evaluated.

Results: A total of 1,223 patients were analyzed in 4 randomized controlled trials and clinical trials out of 7 articles initially selected. Wölnerhanssen et al. (2021) reported that RYGB achieved greater weight loss than SG (62.7% vs 55.5%; 95% CI $P < 0.001$) and higher remission of hypertension (60.3% vs 44.9%; $P = 0.049$). Adami et al. (2020) found superior LDL cholesterol remission after RYGB (66.6% vs 27.8%; $P = 0.019$). Courcoulas et al. (2023) RYGB improved Gastroesophageal Reflux Disease and gastrointestinal quality-of-life; 95% CI; $P < 0.001$). Alaidaroos et al. (2024) observed better control of hypertension, and dyslipidemia following RYGB.

Conclusions: Compared with SG, RYGB results in greater weight loss and better metabolic outcomes, but with higher postoperative complications. Further research is needed to determine the long-term effects and safety of these procedures.

Keywords: Gastric bypass, gastric sleeve, laparoscopy surgery

Conserve or Remove?
Decisions in Breast Cancer Surgery - a Systematic Review

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Background: Breast conserving surgery (BCS) with radiotherapy and mastectomy are two frequently chosen treatment options for breast cancer. Breast conserving surgery involves the excision of the tumor with a margin of healthy tissue while preserving most of the breast. In contrast, mastectomy consists of the complete removal of the breast tissue, with or without preservation of the overlying skin or nipple-areolar complex.

Objectives: The aim of this study is to compare the better survival rate and recurrence risk (RR) of the two approaches in the early stages of breast cancer.

Materials and Methods: A search was conducted using databases such as PubMed and Google Scholar for articles published from 2015, using keywords: “mastectomy”, “breast conserving surgery”, “breast cancer”, “survival” and “recurrence”. Included articles consisted of reported outcomes on survival, recurrence and investigations based on women with early-stage breast cancer. Overlapping articles and those focusing on advanced-stage breast cancer were excluded. PRISMA guidelines were followed and bias risk was not evaluated.

Results: A total of 10319 patients were identified in 5 clinical trials and randomised controlled studies out of 10 initially selected. Boniface et al. (2018) stated that BCS followed by irradiation was superior to mastectomy without irradiation in terms of survival (79·5 versus 64·3; $p<0·001$), while the local RR did not differ between the two groups. Christiansen et al. (2017) proved a higher RR after mastectomy than after BCS (1.21, 95%CI vs 1.19, 95% CI).

Conclusions: BCS followed by radiotherapy provides survival outcomes comparable to or better than mastectomy in early-stage breast cancer. Both procedures ensure oncologic safety, yet differ in postoperative morbidity, requiring a personalized approach.

Keywords: Breast cancer, mastectomy, breast conserving surgery

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Immediate versus delayed breast reconstruction with DIEP flap – What if we don't wait? – Literature Review

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Background: The gold standard for autologous flap in breast reconstruction is the Deep Inferior Epigastric artery Perforator flap (DIEP). The DIEP flap technique uses abdominal tissue transfer to reconstruct the breast after mastectomy with a free microsurgical transplant, preserving all muscle. Breast reconstruction can be immediate (IBR), performed during the same operation as the mastectomy, or delayed (DBR), performed months to years later.

Objectives: The objective of this paper is to establish whether IBR or DBR with an autologous free DIEP flap should be preferred in most cases. We compare these approaches by aesthetic outcome, psychological distress, treatment costs, and associated risks.

Materials and Methods: The PubMed database was searched, using the following algorithm: (DIEP[Title/Abstract]OR"deep inferior epigastric perforator flap"[Title/Abstract])AND("breast reconstruction"[Title/Abstract]OR"Breast Reconstruction"[MeSH])AND("immediate reconstruction"[Title/Abstract]OR"delayed reconstruction"[Title/Abstract]OR"immediate vs delayed"[Title/Abstract]OR"timing"[Title/Abstract]). The inclusion criteria applied are the last 10 years, female gender, and the human species. Any manoeuvres other than DIEP were excluded from the selection. The papers were then sorted by title and abstract, with the focus falling on relevance to the subject.

Results: The search process revealed 65 papers, of which 34 were included in the review. IBR implies a decreased risk of emotional distress, usually with better aesthetic results, and possibly fewer surgeries with subsequent lower costs in the long term. However, IBR comes with possible skin and nipple perfusion problems and a higher occurrence of hematoma and seroma. One impediment in choosing IBR might be the possible future need for radiotherapy, as it could compromise the reconstructed breast. Furthermore, several papers claim that there is no difference in the rate of development of local cancer recurrence between the two techniques. Additionally, no significant differences were found regarding fat necrosis, partial flap loss, and total flap loss rate.

Conclusions: In conclusion, immediate breast reconstruction (IBR) using a free deep inferior epigastric perforator (DIEP) flap appears to represent a favourable reconstructive option following mastectomy. Nevertheless, clinicians must carefully evaluate all patient-specific risk factors when determining the optimal surgical approach. Therefore, treatment decisions should be based on an individualised management plan aimed at achieving the best possible outcome for each patient.

Keywords: DIEP flap breast reconstruction, Immediate breast reconstruction (IBR), Delayed breast reconstruction (DBR), breast cancer, mastectomy

SURGICAL SCIENCES. CASE REPORTS

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Severe Polytrauma with Traumatic Upper Limb Ischemia and Delayed Splenic Rupture: A Multidisciplinary Approach

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Introduction: Polytrauma remains a major cause of morbidity and mortality, particularly when multiple organ systems are involved. High-energy mechanisms, such as falls from height, frequently result in complex injury patterns including vascular damage, thoracic trauma, and intra-abdominal hemorrhage. Acute limb ischemia secondary to traumatic vascular injury represents a surgical emergency requiring prompt revascularization to prevent irreversible tissue damage and potential limb loss. In parallel, associated visceral injuries may evolve unpredictably and require continuous reassessment and timely intervention. Polytrauma severity is commonly assessed using the Injury Severity Score (ISS), while initial management follows Advanced Trauma Life Support (ATLS) principles. Additionally, in cases of severe limb injury, the Mangled Extremity Severity Score (MESS) can assist in evaluating limb viability and guiding decisions regarding salvage versus amputation.

Case Presentation: We report the case of a 39-year-old male admitted after polytrauma following a fall from approximately 6 meters. At presentation, the patient reported severe pain and functional impairment of the left upper limb, associated with clinical signs of acute limb ischemia, including cyanosis, poikilothermia, absent distal pulses, and lack of Doppler signal. Emergency vascular surgery was performed, consisting of an axillo-brachial bypass using a synthetic graft, combined with brachial muscle reconstruction and forearm fasciotomy due to the high risk of compartment syndrome. A chest drain was also inserted for the associated left-sided hemopneumothorax. During the postoperative course, the patient developed hemodynamic deterioration caused by massive hemoperitoneum secondary to splenic rupture. An emergency exploratory laparotomy with splenectomy was subsequently performed. Postoperative management required intensive care support, including mechanical ventilation, hemodynamic stabilization, renal replacement therapy, and treatment of infectious complications. Despite the severity of the injuries, the patient showed gradual clinical improvement and was ultimately discharged in stable condition. This case can be classified as: Polytrauma (ISS >16), Blunt trauma due to fall from height, Grade V splenic injury (AAST classification), Acute traumatic upper limb ischemia (Rutherford IIb–III), Severe extremity injury with high MESS score (≥7)

Conclusions:
This case illustrates the complexity of managing severe polytrauma involving both vascular and intra-abdominal injuries. Early identification of traumatic vascular ischemia and prompt surgical revascularization are essential for limb salvage. Continuous reassessment is equally important, as associated injuries such as delayed splenic rupture may occur and require urgent surgical intervention. A coordinated multidisciplinary approach remains crucial for improving outcomes in critically injured patients.

Keywords: polytrauma, acute limb ischemia, traumatic vascular injury, splenic rupture, axillo-brachial bypass, Mess.

The Bycross Atherectomy Device for Endovascular Revascularization: A Novel Strategy for Critical Limb Ischemia

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Introduction: Critical limb ischemia is the most advanced stage of peripheral arterial disease. It happens when the arteries in the lower limbs get blocked by atherosclerosis, which makes it hard for blood to flow to the tissues. Endovascular therapy has become a more popular way to treat patients since it is less intrusive, has a reduced risk of complications during and after surgery, and allows for a speedier recovery than open surgical revascularization. The objective of this case is to elucidate the technical facets of the BY-Cross approach and to assess its practicality and prospective advantages in the endovascular treatment of chronic limb ischemia.

Case Presentation: We present a case of chronic limb ischemia of a 71-year-old male patient, smoker, with grade III hypertension, with rest pain in the right lower limb. The symptoms began 2 years ago with intermittent claudication and gradually progressed to rest pain. Contrast-enhanced CT angiography revealed a patent common femoral artery and profunda femoris artery. Distal segment of the superficial femoral artery demonstrates an occlusion measuring approximately 12 cm in length, popliteal artery is patent and visualized along its entire course. The tibio-peroneal trunk, peroneal artery, anterior tibial artery are not visualized, findings consistent with advanced distal arterial occlusive disease. Endovascular treatment was performed with diagnostic angiography of the right lower extremity followed by percutaneous transluminal angioplasty of the superficial femoral artery and posterior tibial artery via an antegrade approach using the BY Cross device. Postoperatively, the posterior tibial pulse was palpable, and Doppler ultrasound showed good-quality flow in the anterior tibial artery.

Conclusions: The BY-Cross endovascular revascularization technique represents a promising and innovative strategy for the treatment of critical limb ischemia in patients with peripheral arterial disease. In the reported case, the technique proved to be feasible and effective, allowing restoration of arterial flow and improvement of limb perfusion without procedural complications. These findings suggest that the BY-Cross strategy could expand the therapeutic options for challenging femoral artery stenoses and occlusions.

Keywords: the by-cross atherectomy device, endovascular revascularization, novel strategy, limited occlusions, critical limb ischemia

Iliac Stent Thrombosis in Severe Thyrotoxicosis: A Case of Acute-On-Chronic Limb Ischemia

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Introduction: Acute-on-chronic limb ischemia is a common clinical manifestation in individuals with severe peripheral artery disease and may be induced by systemic circumstances that facilitate thrombosis. Hyperthyroidism is linked to many hemostatic changes, such as elevated coagulation factor levels, endothelial activation, and heightened platelet reactivity, resulting in a prothrombotic condition.

Case presentation: We present a 57-year-old female smoker with a history of external iliac artery stenting who exhibited acute-on-chronic limb ischemia. The patient had a known history of Graves' disease with severe thyrotoxicosis and had previously declined thyroidectomy. Her endocrine state was a contraindication for iodinated contrast delivery due to the danger of worsening hyperthyroidism and triggering a thyroid storm, which prevented the use of CT angiography, the standard first-line imaging technique in acute limb ischemia. Her vascular history was notable for the implantation of a stent in the left external iliac artery in 2019, which raised concerns about potential stent-related problems such thrombosis or restenosis. After a multidisciplinary debate on various imaging modalities, vascular evaluation was conducted utilizing magnetic resonance angiography with a gadolinium-based contrast agent. An urgent surgical revascularization was done. It involved transfemoral Fogarty thrombectomy of the lower leg arterial axis and then an iliofemoral bypass with a synthetic graft. Management necessitated extensive collaboration among specialists from vascular surgery, endocrinology, cardiology, anesthesiology, and radiology.

Conclusion: This case underscores the potential role of severe hyperthyroidism as a precipitating factor for arterial thrombosis and demonstrates the necessity of a multidisciplinary approach in managing acute-on-chronic limb ischemia when conventional diagnostic and therapeutic options are constrained.

Keywords: Acute-on-chronic limb ischemia; Thyrotoxic crisis; Graves' disease; Iliac artery stent thrombosis; Magnetic resonance angiography; Multidisciplinary management

Right Atrium Lipoma – The Bridge between Asymptomatic Presentation and Fulminant Insufficiency

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Introduction: Lipomas are soft masses of adipose tissue, typically encapsulated by a layer of fibrous tissue. Primary cardiac lipomas are exceptionally rare benign tumors; while they can occur throughout the heart, they most frequently present within the cardiac chambers (53% of cases). Symptoms vary significantly, ranging from mild discomfort to recurrent episodes of syncope. The right atrium is the most prevalent site for these structures, accounting for 42% of reported cases.

Case Presentation: A 30-year-old male patient presented to the cardiovascular clinic with an incidental diagnosis of a right intra-atrial lipoma, discovered following an unrelated ENT surgical procedure. The patient's medical history—notably nephrolithiasis and a previous appendectomy—indicated no prior cardiac pathology. Upon examination, vital signs and physical findings were unremarkable (HR: 75 bpm; W: 75 kg; H: 180 cm), with the exception of a minor right bundle branch block on ECG.Transthoracic echocardiography and MRI precisely localized a 50 x 50 x 50 mm mass on the posterior wall, adjacent to the opening of the superior vena cava. Despite the tumor's significant size, blood flow through the right heart remained unobstructed. Due to the risk of future flow obstruction or "catastrophic blockage," a surgical approach was preferred over conservative management. A minithoracotomy was performed to excise the lipoma, and the right atrium was reconstructed using XENOSURE patches. The procedure was successful, and the patient's prognosis remains highly favorable.

Discussion: The prevalence of primary cardiac tumors is approximately 0.2%–0.4%, of which only 8.4% are lipomas, suggesting that their clinical occurrence is often overestimated in general literature. The primary risk factor is their asymptomatic nature; a substantial portion are discovered incidentally during routine check-ups or unrelated procedures. The most critical complication arises when the mass size leads to valvular obstruction, potentially causing sudden cardiac death. In this case, although the tumor was substantial, cardiac hemodynamics were fortunately preserved. However, the patient remained at high risk for a catastrophic outcome had the lesion not been identified.

Keywords: Cardiac Lipoma, Atrium Lipoma, Minithoracotomy

Hybrid Approach to Bone-Exposed Fingertip Amputation in Youth: A Case Report

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Introduction: Distal fingertip amputations are frequent injuries in pediatric and adolescent patients, most often resulting from crush trauma. Management is particularly challenging when lesions involve substantial soft tissue loss, nail bed injury, and exposed bone. While advancement flaps remain a standard reconstructive option, less invasive or combined approaches may achieve similar outcomes with reduced morbidity. This case report describes the management of a complete distal amputation of the fifth finger in a 15-year-old patient, emphasizing the rationale for selecting a minimally invasive hybrid strategy that combines conservative wound care with composite grafting. The case is notable for achieving an excellent functional and aesthetic result, despite a 24-hour delayed replantation of a cold ischemia–preserved amputated segment.

Case Presentation: A 15-year-old previously healthy male presented with traumatic amputation of the distal phalanx of the right fifth finger following a crush injury caused by a manually operated gate. The patient reported severe localized pain but preserved tactile sensitivity in the remaining tissue. Clinical examination identified a 1–2 cm defect with near-total pulp loss, nail avulsion, and exposed bone, with partial preservation of the nail matrix. The stump exhibited mild soft tissue retraction and deformation, without signs of infection or tissue necrosis. Radiographs confirmed an intact distal phalanx with no fracture and revealed a small residual nail plate fragment. No additional investigations were required.

Discussion:
In similar cases, reconstruction typically involves local flaps such as the Atasoy V-Y technique. However, the defect size in this patient exceeded the safe advancement limits, increasing the risk of tension and vascular compromise. Nail matrix involvement further complicated management. Although cross-finger flaps and microsurgical techniques are viable alternatives, they are more invasive and require prolonged immobilization. Current evidence supports composite grafting and semi-occlusive dressings in younger patients due to their enhanced regenerative capacity. This case demonstrates that a hybrid conservative-surgical approach can result in good graft integration, partial nail regrowth, preserved sensitivity, and functional recovery, supporting individualized and less invasive treatment strategies.

Fronto-Parietal Craniectomy for Pansinusitis-Related Hemispheric Subdural Empyema: A Case Report

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Introduction: Subdural empyema is a rare neurosurgical emergency characterized by a purulent collection between the dura and arachnoid mater, most often complicating paranasal sinusitis, otitis media or meningitis. Without prompt diagnosis and treatment, it carries a high risk of permanent neurological deficits, seizures and death.

Case presentation: A 65-year-old diabetic patient with a history of pansinusitis, previously drained endoscopically, presented with altered mental status, mixed aphasia, right hemiparesis grade 3/5, positive right Babinski sign and focal seizures of the right upper extremity. His initial Glasgow Coma Scale (GCS) was 13. Cranial CT and MRI showed a collection within the left frontal sinus with osteolysis of the anterior wall and a left fronto-temporo-parietal subdural collection with marked diffusion restriction, consistent with subdural empyema of rhinogenic origin. Emergency neurosurgical intervention was performed under general anesthesia. The patient was positioned supine with the head fixed in a Mayfield device, rotated contralaterally by about 30 degrees. A left fronto-parietal curved incision, craniectomy and X-shaped durotomy were performed, followed by dissection to the osteolysed anterior wall of the left frontal sinus. The lysed bone was rezected with a 3 mm Kerrison rongeur and the frontal sinus mucosa was excised. The subdural empyema was evacuated by abundant irrigation and careful aspiration. Duraplasty was then performed, an epicranial drain was placed and the wound was closed in anatomical layers. Postoperatively, the patient remained in a stable condition. One week later, he was conscious and cooperative, GCS 14, with progressive remission of aphasia and motor deficit. At discharge, he was GCS 15, fully oriented, with complete resolution of aphasia and hemiparesis.

Discussion: Subdural empyema secondary to pansinusitis is a neurosurgical emergency in which rapid recognition and urgent surgical drainage are essential to prevent permanent neurological damage. This case shows that a single left fronto-parietal craniectomy can provide effective access for simultaneous frontal sinus source control and hemispheric empyema evacuation. Wide X-shaped durotomy, meticulous irrigation and aspiration, and subdural drainage are critical to minimise residual empyema and recurrence. Despite type 2 diabetes mellitus, timely radical neurosurgical management within a multidisciplinary team enabled full neurological recovery.

Keywords: Subdural empyema, Pansinusitis, Fronto-parietal craniectomy, Frontal sinus source control, Hemispheric empyema evacuation

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Splenic EBV-Positive Inflammatory Follicular Dendritic Cell Sarcoma Mimicking a Hemangioma: Case Report

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Introduction: The Epstein-Barr virus positive inflammatory follicular dendritic cell/ fibroblastic reticular cell sarcoma is an extremely rare indolent neoplasm, typically occurring in middle-aged Asian women. Due to the dense inflammatory background and the variable imaging features, it frequently mimics benign conditions such as hemangiomas, making its preoperative diagnosis nearly impossible. This case presentation illustrates the importance of theragnostic splenectomy in a rare splenic tumor in acute onset.

Case Presentation: A 42 year-old Asian woman presented to the Emergency Department with intense worsening pain in the left hypochondrium that lasted for 3 days, with no history of trauma. The clinical examination revealed a non-palpable spleen, with tenderness on deep palpation of the left hypochondrium. The contrast-enhanced ultrasound (CEUS) findings raised the suspicion of a hemangioma, however the abdominopelvic CT scan revealed a centrally located splenic tumor, measuring 90 mm in diameter, with mixed cystic and parenchymatous components and no signs of active hemorrhage. The tumor was compressing the superior aspect of the left hepatic lobe. Given the emergent context, severe pain and inconclusive diagnostic findings, a laparoscopic splenectomy was performed. The patient had a good postoperative recovery. Histopathological examination confirmed the diagnosis of EBV-positive inflammatory follicular dendritic cell/ fibroblastic reticular cell tumor.

Discussion: As illustrated in the literature and in this case, inflammatory pseudotumors of the spleen, such as the EBV-positive inflammatory FDC/FRC tumor, are difficult to diagnose using imaging methods and can easily be mistaken for benign conditions. Aligning with established data, the tumor occurred in a middle-aged Asian woman. While this condition has an indolent growth, the patient presented with acute symptoms and a large compressive mass, necessitating urgent intervention. The discordance between imaging findings, accompanied by the acute onset of the symptoms, revealed the importance of the splenectomy as a treatment of choice in managing such cases, serving both to establish a definitive diagnosis and to ensure curative treatment. Clinicians must remain aware of this rare pathology, especially in middle-aged Asian women with atypical splenic lesions, to ensure appropriate surgical and medical treatment.

Keywords: Laparoscopic splenectomy; Splenic neoplasm; Epstein-Barr virus; EBV-positive inflammatory FDC sarcoma

Diagnosis and Successful Laparoscopic Resection of a Small Pancreatic Insulinoma– A Case Report

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Introduction: Insulinomas are rare pancreatic neuroendocrine tumours arising from β-cells and responsible for endogenous hyperinsulinemic hypoglycaemia. Most insulinomas present with the Whipple triad: hypoglycaemic symptoms, low plasma glucose during the episode, and relief upon glucose normalization. The majority of tumours are benign, and the treatment is managed with surgical resection, preoperative imaging being essential for confirming diagnostic.

Case Presentation: A 67-year-old female with a history of hypertension and mild vascular dementia was referred for evaluation following recurrent severe hypoglycaemic episodes, including sudden loss of consciousness, memory loss, and clonic movements with urine emissions. Initial suspicion of epilepsy shifted to a metabolic cause after paraclinical investigations revealed elevated insulin, proinsulin, and C-peptide levels. Contrast-enhanced abdominal CT identified a 15–16 mm hyper vascular lesion in the pancreatic body, which was subsequently confirmed via endoscopic ultrasound as a hypoechoic mass with a positive Doppler signal. These findings established the diagnosis of insulinoma, and the patient was directed for surgical management. Laparoscopic corporocaudal splenopancreatectomy was performed with adhesiolysis and placement of peripancreatic and splenic fossa drains. Intraoperative laparoscopic ultrasonography allowed precise localization of the tumour in the pancreatic body. The procedure involved retro-pancreatic tunnelling and transection of the pancreas using an endoscopic vascular stapler, with subsequent ligation of the splenic artery and vein. Following mobilization of the specimen via sectioning of the perisplenic ligaments and short gastric vessels, the piece was extracted through a Pfannenstiel incision, followed by multi-layer anatomical closure. Histopathological examination revealed a well-differentiated neuroendocrine tumour measuring 1 × 1 × 0.5 cm. Immunohistochemistry was positive for chromogranin, synaptophysin, and insulin, with a Ki-67 proliferation index of <1%, corresponding with a low-grade (G1) insulin-producing insulinoma. No lymph node metastases were identified. Postoperative recovery was favourable under comprehensive intravenous therapy, including antibiotics, analgesics, and anticoagulants. The patient was discharged in good surgical condition with follow-up recommendations.

Discussion: This case emphasizes the diagnostic challenge of insulinomas presenting as severe hypoglycaemia mimicking neurological symptoms. Accurate imaging followed by minimally invasive surgical resection is the definition of ideal treatment, demonstrating excellent postoperative outcomes.

Keywords: insulinoma, laparoscopic surgery, corporocaudal splenopancretectomy, hypoglycaemia

Treatment of a Chronic Elbow Wound via Electrospinning Technology-Based Treatment

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Introduction: Chronic wounds represent a disturbance in the process of wound healing, without restoration of the normal structure and function. They are frequently complicated by disorders of the healing process, such as ischemia and tissue necrosis. Traditional methods of treating these lesions have been proven to be limited in their efficiency. Thus, modern technologies are needed for improving the quality of chronic wound care. Electrospinning technology is an innovative method based on nanofiber coating, that imitates the skin architecture, allowing a better healing. We present the case of a 55 year old female presented at our clinic with a chronic wound localized on the elbow treated via electrospinning technology.

Case Presentation: A 55 year-old female is presenting with a painful wound, localized at the left elbow and forearm, that appeared 6 months ago. Beforehand, she was prescribed a topical treatment and oral antibiotics, but the wound kept progressing. The clinical examination reveals: atonic superinfected wound localized at the left elbow and forearm, local inflammation present, altered general condition. After admission to our clinic, systemic and local treatment – Electrospinning – were applied. Clinical evolution is remarkable: patient's general condition is improved three days after treatment administration, with the pain progressively diminishing over time. The wound healed 21 days after admission.

Discussion: Chronic wounds arise from tissue damage that heals slowly, and they often reoccur. They are heavily contaminated and usually involve significant tissue loss that can affect vital adjacent structures. Such wounds do not heal easily due to repeated trauma of the wound site, underlying diseases, persistent infections, or inadequate treatment. Electrospinning technique improves wound healing through the physical characteristics of the nanofiber coating, such as porosity, and controllable contact surface. This report showcases a chronic wound with fast extension and treatment resistance, that was managed with the aforementioned method. Other qualities of electrospinning are: increased comfort of the patient, due to the unique application of the coating, pain reduction, and the faster healing time compared with traditional treatments. This case highlights the positive effects of electrospinning-based treatments on chronic wound healing, supporting the role of electrospun biomaterials in promoting tissue repair.

Keywords: Chronic Wound, Electrospinning, Nanofiber, Regeneration, Biomaterials

Minimally Invasive, Maximally Effective: Endovascular Approaches to Revascularization in Critical Limb Ischemia Cases

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Introduction: Peripheral artery disease (PAD) is the chronic narrowing of lower-extremity arteries due to atherosclerosis. Driven by smoking, hypertension, and metabolic issues, it involves lost arterial elasticity and abnormal clotting, leading to reduced blood flow and microvascular complications. The most advanced stage of PAD is critical limb ischemia (CLI). CLI is defined by the presence of ischemic rest pain persisting for more than two weeks, non-healing ulcers, or gangrene attributable to objectively documented arterial occlusive disease. This condition is associated with a high risk of mortality, major amputation, and significant deterioration in quality of life. The purpose of this case presentation is to demonstrate the feasibility and effectiveness of complex endovascular revascularization using a combined antegrade femoral and retrograde pedal approach in an elderly patient with chronic limb-threatening ischemia and multilevel peripheral arterial disease, with the aim of achieving limb salvage.

Case Presentation: An 81-year-old woman with multiple cardiovascular risk factors, including hypertension, type 2 diabetes mellitus, dyslipidemia, chronic coronary syndrome, and prior ischemic stroke, presented with rest pain in the left lower limb and necrotic lesions of the toes and heel. Clinical examination revealed absent distal pulses and hypothermia of the leg and foot. Angio-CT and diagnostic angiography demonstrated multilevel peripheral arterial disease with occlusions of the superficial femoral, popliteal, and infrapopliteal arteries. Endovascular revascularization of the left lower limb was performed using a combined antegrade femoral and retrograde pedal approach. Recanalization of the superficial femoral artery was achieved with stent implantation, followed by stent placement in the popliteal artery. A drug-eluting stent was deployed in the anterior tibial artery, while balloon angioplasty was performed at the level of the dorsalis pedis artery and the plantar arch, resulting in restoration of distal flow.

Discussion: This case illustrates successful limb salvage in an elderly patient with chronic limb-threatening ischemia and complex multilevel peripheral arterial disease using an endovascular strategy. Current literature increasingly supports endovascular revascularization as a first-line approach for complex infrainguinal disease, particularly in high-risk patients. This case further highlights the effectiveness of modern endovascular techniques in restoring distal perfusion and achieving favorable outcomes despite severe multilevel arterial occlusions.

Keywords: Chronic limb-threatening ischemia, Peripheral arterial disease, Endovascular revascularization, Multilevel arterial occlusive disease, Limb salvage

Against the Odds: A Challenging Survival after Ruptured Abdominal Aortic Aneurysm

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Introduction: Infrarenal abdominal aortic aneurysm (AAA) is the most common form of aortic aneurysm and often remains clinically silent until rupture. Ruptured AAA is associated with extremely high mortality and morbidity despite advances in surgical and endovascular techniques. According to contemporary data summarized by the 2024 European Society for Vascular Surgery (ESVS) guidelines, overall mortality of rAAA approaches 80%, while perioperative mortality after emergency repair remains high, at ~30-40%. Clinical presentation of rAAA is frequently atypical, particularly in initially hemodynamically stable patients, leading to diagnostic uncertainty and potential delay in definitive intervention.

Case Presentation: We present a complex case of rAAA of a 68-year-old male patient, smoker, overweight, with grade II hypertension, dyslipidemia, presenting with intense hypogastric pain radiating to the lumbar region. Three years earlier, an incidental abdominal ultrasound identified a dilated abdominal aorta, without subsequent vascular follow-up. At admission, symptoms evolved progressively and were initially misinterpreted as a subocclusive syndrome. Despite severe pain, the patient was hemodynamically stable, with normal hemoglobin levels. Contrast-enhanced CT angiography revealed a massive fusiform AAA extending to the aortic bifurcation (13.5 cm length, 10.7 cm maximum diameter) involving the right common iliac artery with signs of rupture and large parietal hematoma. A concomitant descending thoracic aortic aneurysm was also identified. Emergency open repair with an aorto-bifemoral bypass using a Dacron graft was immediately performed. Early postoperative evolution was favorable, with restored distal perfusion and successful extubation. However, on postoperative day 5, sudden clinical deterioration occurred, developing severe abdominal pain and distension, following intense coughing episodes. CT imaging demonstrated postoperative abdominal evisceration with preserved skin integrity. Pulmonary evaluation revealed obstructive bronchitis, likely exacerbated by endotracheal intubation, identified as a key precipitating factor. Emergency surgical repair of the evisceration was undertaken, with an uneventful postoperative recovery, and the patient was discharged six days later in good clinical condition.

Conclusions: This case illustrates survival following rAAA despite initial diagnostic uncertainty, extensive concomitant aortic pathology, and significant postoperative complications. It emphasizes that atypical clinical presentation and temporary hemodynamic stability do not rule out rupture and underlines the importance of multidisciplinary care extending beyond the vascular repair itself.

Keywords: Ruptured Abdominal Aortic Aneurysm, Open Aortic Repair, Aorto-Bifemoral Bypass

From Systemic Therapy to Radical Surgery in Metastatic Urothelial Carcinoma

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Introduction: Muscle-invasive urothelial carcinoma of the bladder is an aggressive malignancy frequently associated with early metastatic spread. Patients presenting with distant lymph node metastases traditionally have limited therapeutic options, systemic chemotherapy representing the standard initial treatment. However, recent advances in immunotherapy have reshaped the management of advanced disease, allowing prolonged disease control in selected patients. In certain situations, a favorable response to systemic therapy may reopen the discussion regarding surgical treatment, even in cases initially considered unresectable. We present a complex case illustrating the role of multimodal therapy in metastatic urothelial carcinoma.

Case Presentation: A 52-year-old male was diagnosed with high-grade muscle-invasive urothelial carcinoma of the bladder (G3 pT2L0V0Pn0 cN2M1A, stage IVA), associated with retroperitoneal paraaortic lymph node metastases. Initial treatment consisted of four cycles of chemotherapy with Gemcitabine and Cisplatin, which achieved a partial radiologic response. Given the favorable evolution, maintenance immunotherapy with Avelumab was initiated and continued during follow-up, maintaining disease stability. After multidisciplinary evaluation, surgical management was considered feasible. The patient underwent laparoscopic radical cystectomy with orthotopic neobladder reconstruction, combined with extensive pelvic and retroperitoneal lymphadenectomy. Because metastatic lymph nodes were identified along paraaortic axis, the retroperitoneal lymph node dissection was extended cranially beyond the usual surgical limits, reaching the level of the third portion of the duodenum. The procedure included extended retroperitoneal lymph node dissection involving the paraaortic and adjacent lymphatic stations, together with standard pelvic lymphadenectomy. Despite the complexity of the intervention, the surgery was completed laparoscopically without major intraoperative complications.

Discussion: This case illustrates the evolving role of multimodal therapy in metastatic urothelial carcinoma. Systemic chemotherapy followed by maintenance immunotherapy can achieve significant disease control and may allow reconsideration of surgical treatment. Recent studies and current international guidelines suggest that carefully selected patients with limited metastatic burden may benefit from consolidative surgery after favorable response to systemic therapy. The presence of paraaortic lymph node metastases required an extended retroperitoneal lymphadenectomy exceeding the conventional boundaries of pelvic dissection. Moreover, performing the entire procedure laparoscopically, together with neobladder reconstruction, demonstrated the feasibility of minimally invasive approaches even in complex oncologic cases.

Keywords: urothelial carcinoma, immunotherapy, Avelumab, lymphadenectomy, metastases

Saving the Eye: Vitrectomy in Severe Post-Traumatic Endophthalmitis

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Introduction: Endophthalmitis is a severe infection of the intraocular structures and represents an ophthalmic emergency that can lead to rapid and irreversible tissue damage, particularly involving the retina. It may occur as a result of exogenous contamination, penetrating ocular trauma, or systemic infection. The blood–ocular barrier significantly limits the intraocular penetration of systemically administered antibiotics, rendering conservative treatment insufficient and making surgical intervention mandatory. Prompt diagnosis and early management are essential to prevent permanent visual loss and anatomical loss.

Case report: A 39-year-old male patient was referred to our clinic for vitrectomy evaluation following a penetrating ocular trauma to the right eye. Clinical examination revealed subconjunctival hemorrhage with chemosis, mixed conjunctival congestion, and traumatic lens opacification. Fundus examination was not possible due to significant anterior segment involvement, including corneal epithelial edema and lens opacities. The positive diagnosis was: "Penetrating ocular trauma complicated by endophthalmitis" .The surgery was performed urgently, given that systemically administered antibiotics do not penetrate the blood-ocular barrier in therapeutically effective doses. Topical treatment consisted of antibiotic, anti-inflammatory, and mydriatic eye drops. Systemic therapy included moxifloxacin 400 mg, along with non-steroidal anti-inflammatory drugs and analgesics.Surgical management consisted of pars plana vitrectomy, initiated after corneal de-epithelialization to allow access to the posterior segment. The main objectives were the removal of the vitreous body and inflammatory cells, reduction of the bacterial load, and improved visualization of the retina for detection of possible complications such as retinal detachment or intraocular hemorrhage. Following extensive removal of the infected vitreous, intravitreal vancomycin and dexamethasone were administered to target Gram-positive bacteria and control intraocular inflammation. Postoperative evolution was favorable, with early functional visual recovery from finger counting at 40 cm to 3/50 at hospital discharge. During follow-up, an epimacular membrane developed, requiring secondary surgery with membrane dissection and internal limiting membrane peeling. One month after the final intervention, best-corrected visual acuity improved to 0.2.

Discussion: This case highlights the importance of early vitrectomy and intravitreal therapy in post-traumatic endophthalmitis. Modern vitreoretinal surgical techniques allow effective infection control, preservation of globe integrity, and meaningful visual recovery—outcomes that were rarely achievable prior to their development.

Keywords: vitrectomy, epimacular membrane, blood-ocular barrier, endophthalmitis

Early Carotid Endarterectomy with Selective Shunting in a Patient with Symptomatic High-Grade Carotid Stenosis and Multiterritorial Atherosclerosis

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Introduction: Carotid atherosclerotic disease is a major cause of ischemic stroke, accounting for approximately 15-20% of all cases. Atherosclerotic plaques most frequently develop at the carotid bifurcation and proximal internal carotid artery (ICA), where disturbed flow patterns promote endothelial dysfunction and lipid accumulation. Cerebral ischemia may result from artery-to-artery embolization originating from unstable plaques or from hemodynamic compromise due to severe carotid stenosis. Vulnerable plaques characterized by a large lipid core, thin fibrous cap, and surface ulceration are associated with an increased risk of microembolization and acute ischemic events. Current guidelines from the European Society for Vascular Surgery and the Society for Vascular Surgery recommend carotid endarterectomy (CEA) as the preferred treatment for symptomatic ICA stenosis of at least 50%, ideally performed within 14 days of symptom onset.

Case presentation: We present the case of a 58-year-old patient with advanced systemic atherosclerosis and multiple cardiovascular risk factors. During vascular evaluation, the patient developed progressive right-sided weakness and speech impairment. Brain imaging revealed a recent ischemic stroke in the left frontotemporal lobe. CT angiography demonstrated 70% stenosis of the left ICA, subocclusion of the right ICA, and subocclusive vertebral artery stenosis, suggesting severely limited collateral cerebral circulation. Despite optimal medical management, the patient experienced neurological deterioration, suggesting an evolving stroke and prompting urgent surgical intervention. An early left carotid endarterectomy was performed with synthetic patch angioplasty. During carotid cross-clamping, the patient developed altered consciousness, indicating hemodynamic intolerance. A temporary intraluminal shunt was therefore inserted to maintain cerebral perfusion. The extracted plaque was soft, ulcerated, and extended across the carotid bifurcation. Although follow-up imaging demonstrated extension of the ischemic lesion, the patient showed progressive clinical improvement compared to the admission status and was discharged for rehabilitation and neurological follow-up.

Conclusion: Management of symptomatic carotid artery disease in patients with extensive systemic atherosclerosis and compromised collateral circulation remains challenging. Early carotid endarterectomy represents the standard treatment for significant symptomatic stenosis when carefully indicated. Intraoperative assessment and selective shunting during carotid cross-clamping can ensure adequate cerebral perfusion in patients with limited collateral flow. Multidisciplinary management and strict control of cardiovascular risk factors remain essential to prevent recurrence and improve long-term outcomes.

Keywords: Carotid atherosclerotic disease, Internal carotid artery stenosis, Ischemic stroke, Cardiovascular risk factors, Carotid endarterectomy, Selective shunting

The Point of no Return: Total Nephrectomy in Advanced Autosomal Dominant Polycystic Kidney Disease

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Introduction: Autosomal dominant polycystic kidney disease (ADPKD) is a hereditary disorder characterized by progressive cyst formation leading to renal enlargement and progressive loss of kidney function. The disease frequently progresses to end-stage renal failure requiring renal replacement therapy. In complicated cases, surgical intervention such as nephrectomy may be required.

Case presentation: A 47-year-old male with a known history of ADPKD was admitted for evaluation, having a significant family history of ADPKD involving his father, brother, and cousin. His medical history was notable for chronic kidney disease stage V requiring hemodialysis via a central venous catheter, secondary renovascular hypertension, and secondary hyperparathyroidism. He was admitted for macroscopic hematuria and left flank pain. Laboratory investigations revealed severe renal dysfunction with markedly elevated serum creatinine and urea levels, consistent with end-stage renal disease. Abdominal computed tomography demonstrated massively enlarged kidneys measuring 24.3 cm and 21.3 cm with multiple cystic formations. Given the advanced disease stage, the significant renal enlargement, and the associated complications, surgical management was indicated. The patient underwent left total nephrectomy through an extended left subcostal incision with pararectal extension. The procedure involved left colo-parietal mobilization, dissection of the kidney and ureter up to the level of the iliac vessels, and incision of Gerota's fascia. The renal vascular pedicle was isolated, ligated, and divided, and the ureter was ligated at the level of the iliac vessels. Hemostasis was achieved and abdominal drainage was placed. The postoperative course was favorable. Minimal peritoneal drainage allowed early removal of the drains, and the patient was discharged afebrile and hemodynamically stable, with the recommendation to continue hemodialysis treatment.

Discussion: This case emphasizes the severe progression of autosomal dominant polycystic kidney disease and the potential need for surgical intervention in advanced stages. In patients with end-stage renal disease and symptomatic renal enlargement, nephrectomy can represent an effective surgical therapeutic strategy.

Keywords: autosomal dominant polycystic kidney disease, total nephrectomy, end-stage renal disease, hemodialysis, renal enlargement

Video-assisted minimally invasive approach for severe mitral regurgitation in a geriatric patient

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Introduction: Severe mitral regurgitation is a condition where the mitral valve no longer closes tightly, allowing blood to flow backward into the left atrium. When this issue is caused by tissue degeneration, surgical intervention is the only effective solution to prevent irreversible cardiac damage. In elderly patients, replacing the compromised native valve with a biological prosthesis is essential to restore normal circulation and eliminate symptoms. The purpose of this presentation is to demonstrate that a video-assisted minimally invasive approach is a safe and effective solution, offering a significantly faster recovery compared to conventional surgery.

Case Presentation: We report the case of a 77-year-old female patient, diagnosed with mitral regurgitation and atrial fibrillation, presenting with dyspnea and fatigue during moderate exertion. Preoperative clinical examination revealed a grade III/IV mitral murmur. Echocardiographic investigations confirmed the diagnosis: myxomatous mitral cusps, posterior mitral valve prolapse with P2-level chordal rupture and Coandă effect. Additionally, left atrial dilatation (51 mm) and moderate pulmonary hypertension (sPAP 52 mmHg) were observed. Intraoperatively, a mitral valve replacement with a biological prosthesis was performed using a video-assisted minimally invasive right minithoracotomy. To reduce myocardial ischemia time and ensure precise prosthesis fixation, the Cor-Knot device was utilized for rapid securing of the valvular sutures compared to manual knot tying. Postoperatively, the success of the endoscopic approach was confirmed, showing a normally functioning biological prosthesis in the mitral position, without paravalvular leaks. Optimal hemodynamic parameters were recorded, with a maximum/mean gradient of 9/3 mmHg and a preserved left ventricular ejection fraction of 60%. Furthermore, no pericardial effusion was detected.

Discussion: The case demonstrates that the minimally invasive approach offers a superior recovery compared to sternotomy in elderly patients. The use of Cor-Knot technology was decisive in shortening the operative time, thereby protecting the fragile myocardium. The excellent echocardiographic results attest that the precision of prosthetic implantation via endoscopic techniques is optimal, even in the presence of cardiac pacing leads. The remarkable cardiovascular homeostasis observed postoperatively confirms the clinical safety of this strategy in managing complex valvulopathies. Thus, video-assisted surgery establishes itself as a standard of care that maximizes clinical benefits while minimizing major surgical risks.

Keywords: Mitral valve replacement, minimally invasive approach, video-assisted surgery, geriatric patient, Cor-Knot.

Severe Pelvic Inflammatory Disease Mimicking Peritoneal Carcinomatosis: A Diagnostic Trap In The Case Of Ruptured Pyosalpinx

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Introduction: The clinical and radiological presentation of advanced Pelvic Inflammatory Disease (PID) can frequently overlap with other severe abdominal pathologies. In rare circumstances, generalized peritonitis and reactive tissue edema may simulate the morphopathological criteria of disseminated malignancy, a phenomenon known as peritoneal carcinomatosis mimicry. The aim of this case report is to highlight the diagnostic challenge of differentiating high-grade pelvic sepsis from stage IV colonic neoplasia and the critical role of biochemical correlation and surgical exploration in establishing an accurate diagnosis.

Case Presentation: We report the case of a 43-year-old female presented to the emergency department with acute abdominal pain, significant distension and signs of systemic inflammatory response. Initial CT imaging revealed a heterogeneous circumferential thickening of the cecum and ascending colon, associated with moderate ascites, diffuse peritoneal infiltration and multiple para-aortic and lumbo-aortic lymphadenopathies. These findings, combined with bilateral pleural effusions and nonspecific hepatic lesion in segment IV, were suggestive of a primary colonic neoplasm with peritoneal and systemic dissemination. Despite the radiological suspicion of malignancy, laboratory investigations indicated an acute bacterial process, with a C-reactive protein of 480 mg/l and a Procalcitonin level of 6,13 ng/ml. This clinico-biological inconsistency triggered urgent surgical laparoscopy which revealed 1,5 liters of purulent exudate and a ruptured left pyosalpinx. The previously observed thickened cecum was confirmed as reactive perithyphlitis secondary to the pelvic sepsis. Following adnexal source control and extensive peritoneal lavage, the patient's recovery was complicated by reactive pancreatitis and secondary healthcare-associated infection with Acinetobacter baumannii XDR successfully managed with targeted antibiotic therapy and multidisciplinary support.

Discussion: Collectively, this case illustrates how generalized peritonitis can radiologically mimic metastatic malignancy. The circumferential cecal thickening and 12 mm retroperitoneal lymphadenopathy, initially suggestive of primary tumor, represented a reactive inflammatory response to adjacent pelvic sepsis, while the multi-cavitary effusions simulated an advanced oncological stage. Intraoperative findings confirmed a primary gynecological source, with secondary involvement of the appendix and cecum, highlighting the essential role of early laparoscopy as both a diagnostic and therapeutic tool, allowing appendectomy and control of adnexal source, while underscoring the need to prioritize clinico-biochemical correlation over equivocal imaging findings in emergency context.

Keywords: Pyosalpinx, Generalized Peritonitis, Peritoneal Carcinomatosis Mimicry, Reactive Perityphlitis

Arthroscopic Debridement for Diffuse Pigmented Villonodular Synovitis of the Knee in a Young Adult

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Introduction: Pigmented villonodular synovitis (PVNS) is a rare, locally aggressive proliferative disorder characterized by synovial hyperplasia and hemosiderin deposition. The diffuse form (DPVNS) predominantly affects large joints and is associated with infiltrative growth and higher recurrence rates in young adults. Surgical management remains challenging despite advances in arthroscopic techniques. In this context, we present a case of diffuse PVNS of the right knee treated arthroscopically.

Case Presentation: A 21-year-old male patient presented with a history of chronic pain, right knee joint swelling and relative functional impotence of the right lower limb. Physical examination of the right knee revealed mild swelling, an antalgic gait and pain during active and passive mobilization, with preserved neurovascular status. Laboratory investigations were normal. MRI confirmed the diagnosis of DPVNS. The patient underwent multidirectional arthroscopic debridement under spinal anesthesia. Intraoperative findings showed extensive synovial hyperplasia. Postoperative drainage was minimal (20 ml). Postoperatively, the patient received standard multimodal analgesia and thromboprophylaxis, followed by early mobilitation and progressive weight-bearing.

Discussions: The gold standard for DPVNS remains surgical synovectomy, though the choice between open and arthroscopic techniques is still debated. Recent meta-analyses indicate a recurrence rate of 19.4% for the diffuse subtype treated arthroscopically. However, the arthroscopic approach offers less blood loss, reduced hospital stays and superior functional outcomes, including greater postoperative range of motion (128.6 ° vs 97.5 °), higher IKDC score (87.4 ± 6.7 vs 74.5 ± 6.1) and improved Lysholm score (86.2 ± 6.2 vs 77.5 ± 5.8) compared to open surgery. In this case, the minimally invasive approach allowed for progressive full weight-bearing within 48 hours. These findings support the role of meticulous arthroscopic debridement as a highly effective primary treatment for young, active patients, provided that a rigurous long-term follow-up protocol is maintained to monitor for late recurrences.

Keywords: diffuse pigmented villonodular synovitis (DPVNS), knee joint, arthroscopic debridement, young adult

From Refusal to Radical Intervention: A Case of Severe Pancreatic Necrosis

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Introduction: Acute pancreatitis is an inflammatory disorder of the pancreas that may extend to surrounding tissues and distant organs. Approximately 10–20% of cases progress to a severe necrotizing form. Necrotizing pancreatitis involves a severe systemic inflammatory response with frequent organ failure, local complications, and mortality rates up to 30%. Surgical intervention is generally reserved for symptomatic patients with infected pancreatic necrosis. We present a case in which delayed surgical management led to extensive disease progression and the need for radical intervention.

Case Presentation: A 46-year-old male presented to the emergency department with severe epigastric pain radiating to both hypochondria, accompanied by nausea, vomiting, and anorexia. Two weeks prior, the patient had been diagnosed with necrotizing-hemorrhagic pancreatitis but declined surgical treatment. Abdominal ultrasound showed limited visualization of the pancreas, with multiple heterogeneous fluid collections in the pancreatic bed and free fluid surrounding the liver, spleen, and ileum. To confirm the diagnosis, a contrast-enhanced abdominal CT scan was performed, which showed absence of identifiable pancreatic tissue and extensive ill-defined air-fluid collections within the pancreatic bed (maximum axial diameter 14x7.5 cm), with air predominance extending into the anterior pararenal space, involving the descending colon and partially the left iliopsoas muscle. Large peritoneal fluid collections with intralesional air were also noted around the liver, spleen, and pelvis, consistent with hydropneumoperitoneum. The patient subsequently consented to surgery and underwent emergency laparotomy. Intraoperative findings included massive hemorrhagic peritoneal fluid, a completely necrotic pancreas, and fistulization to the first jejunal loop. Total pancreatic necrosectomy, fistula repair, and extensive peritoneal drainage were performed. Postoperatively, the patient received broad-spectrum antibiotic therapy (Meropenem and Metronidazole). Following surgery, he developed insulin-dependent diabetes and required insulin therapy (Tresiba); pancreatic enzyme replacement therapy (Kreon) was prescribed to aid lipid digestion.

Conclusions:
This case illustrates the consequences of delayed surgical intervention in severe necrotizing pancreatitis. It highlights the importance of timely decision-making and appropriate surgical management. Timely, multidisciplinary management is essential to prevent disease progression and avoid radical procedures with permanent metabolic consequences.

Keywords: necrotizing-hemorrhagic pancreatitis, pancreatic necrosectomy, total pancreatectomy, delayed surgical intervention.

Total Hip Arthroplasty for Coxarthrosis Following Slipped Capital Femoral Epiphysis in a Young Adult

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Introduction: Slipped capital femoral epiphysis (SCFE) is a condition occurring in adolescents, associated with increasing rates of childhood obesity and, occasionally, excessive physical activity. It is characterized by a fracture through the growth plate, leading to permanent anatomical deformities. Delayed diagnosis results in femoroacetabular impingement (FAI) and premature secondary osteoarthritis. Total hip arthroplasty (THA) in young patients remains a major challenge due to the need for precise biomechanical restoration and long-term implant survival. This case aims to demonstrate the successful management of severe post-SCFE deformity using modern morphometric implants.

Case Presentation: A 22-year-old male with a history of left slipped capital femoral epiphysis (SCFE), diagnosed in 2017, presented with severe mechanical hip pain. Physical examination revealed an antalgic gait, limb length discrepancy. Hip range of motion was pain-limited, with positive FABER and FADIR tests, while neurovascular status was intact. Preoperative imaging (CT and radiographs) confirmed end-stage secondary left coxarthrosis associated with coxa valga and superolateral femoral head subluxation. Laboratory evaluation showed iron deficiency (serum iron 44 µg/dL, transferrin saturation 18.5%) despite normal hemoglobin levels (15.3 g/dL). The patient underwent uncemented total hip arthroplasty under spinal anesthesia using a Stryker Accolade II morphometric wedge stem (size 4, 132°), a 46-mm acetabular cup, and a 32-mm ceramic head. Postoperatively, limb length discrepancy improved significantly from 7 cm preoperatively to 1 cm. Postoperative evolution was complicated by significant wound hemorrhage (hemoglobin 10.3 g/dL) and reactive leukocytosis occurred, successfully managed conservatively with intravenous tranexamic acid.

Discussions: In patients with SCFE, total hip arthroplasty (THA) is a challenging procedure due to the deformities induced over time, which complicate both limb length restoration and implant fixation. The specialized literature reports that THA leads to functional improvement and a significant reduction in pain, although with a higher revision rate compared to primary osteoarthritis cases. Recent studies have reported an overall revision rate of approximately 11.9% at a mean follow-up of 6.5 years, suggesting an increased risk of mid-term failure in this subgroup. Morphometric, uncemented stem designs have been recommended to achieve better fit with femoral geometry as well as metaphyseal fixation, reducing the risk of stress shielding.

Keywords: SCFE, FAI, coxarthrosis, morphometric implants.

Cochlear Implant Surgical Planning and Fitting Strategy in Challenging Inner Ear Malformation – A Case Review

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Introduction: Morphologically congenital sensorineural hearing loss is shown to be caused in 20% of the cases by various anatomical malformations of the cochlea. According to research, inner ear malformations (IEM) occur in 27% of cases (102 of 381), of which 79% bilateral. In these cases, 78 out of 102 patients received cochlear implantation, with 24% of the cases being noted as challenging. Results seem to be promising, though patients with severe malformations can present difficulties in speech perception.

Case presentation: A 4-month-old female patient who did not pass the hearing screening was referred to the hospital where she was diagnosed with bilateral profound sensorineural hearing loss (SNHL). Imaging evaluation showed a severe inner ear malformation, a cochlear aplasia in her left ear and cochlear hypoplasia type II in her right ear. An imaging tool, OTOPLAN, was used to analyse features such as 3D visualization of the ear and cochlea measurements for electrode selection. In choosing the electrode, the goal was to maximize cochlear coverage while minimizing trauma. The surgery was done using a shorter length, flexible design electrode. Post-operatory, there was not a clear behavioural response to the stimuli, which led to increase of the stimulation. Responses remained minimal even after rising the threshold so the decision was to proceed with objective evaluation. eABR points towards elevated thresholds, indicating that higher stimulation levels were needed for neural activation. Following fitting sessions confirmed improved audibility.

Discussion:
Inner ear malformations are challenging cases but successful surgery, careful audiological assessment and device fitting could lead to a good speech perception and production.

Keywords: inner ear malformation; cochlear implantation; cochlear hypoplasia type II; audiologic assessment

Laparotomy Management of a Giant Liver Cyst Presenting With Vena Cava Compression

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Introduction: Hepatic cysts are benign, asymptomatic formations, typically discovered during imaging. While most measure only a few centimeters, giant liver cysts (10 cm and over) are uncommon and can present significant complications. Because of their rarity and the potential for serious morbidity, management decisions require individualized assessment.

Case presentation: A 53-year-old woman presented for ultrasound evaluation of a 15 cm simple hepatic cyst that has been known to compress the Inferior Vena Cava for one year. The patient reported right upper quadrant postprandial colicky pain. The ultrasound showed the giant cyst, along with multiple hepatic hemangiomas, multiple calculi located in the gallbladder, and a formation in the fifth hepatic segment. Following a contrast-enhanced ultrasound, surgery by laparatomy aproach was decided on for removing the cyst and exploring the unknown formation. Cystectomy in the 6th and 7th liver segments was performed, along with a biopsy of the first hepatic segment, removal of the gallbladder, hepatic hilum adenopathy and lipoma. The histopathology exam confirmed the diagnosis.

Discussion: This case represents an important clinical reminder that benign formations might lead to complications requiring complex treatment plans. The combination of imaging, surgical exploration and detailed histopathology allowed for a precise diagnosis, with the patient following an expected recovery path and evolution.

Keywords: giant cyst, laparatomy, cholecystectomy, IVC syndrome

Endovascular Revascularization for Multilevel Infrainguinal Occlusions in an Elderly Patient with Chronic Limb-Threatening Ischemia

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Introduction: Endovascular revascularization has become a cornerstone of modern vascular surgery, offering a minimally invasive alternative to open surgical bypass, particularly in elderly and high-risk patients. Compared with open procedures, endovascular techniques are associated with reduced perioperative morbidity, shorter hospital stays, and faster recovery, although often at a higher procedural cost.

Case presentation: An 82-year-old male presented to the emergency department with rest pain in the left lower limb. The patient had a known history of peripheral arterial disease. Based on clinical examination and medical history, CT angiography was performed, revealing multiple occlusions involving the superficial femoral artery (SFA), popliteal artery (PA), anterior tibial artery (ATA), posterior tibial artery (PTA), and dorsalis pedis artery (DPA). Endovascular revascularization was selected as the treatment strategy. The right common femoral artery (CFA) was punctured, and a crossover technique was used to access the contralateral limb. A guidewire and angiographic catheter were advanced to the target vessels. Mechanical thrombectomy of the SFA and tibioperoneal trunk was performed, followed by sequential balloon angioplasty using balloons of different diameters to dilate both proximal and distal arterial segments. Successful revascularization was achieved in the SFA, PA, ATA, and tibio-peroneal trunk. Recanalization of the PTA was not possible. Completion angiography confirmed satisfactory flow through the treated vessels. The postoperative course was uneventful, and the patient experienced rapid clinical improvement.

Discussion: Evidence from the BASIL-2 trial suggests that endovascular-first strategies may represent an appropriate revascularization approach in many patients with chronic limb-threatening ischemia, particularly in elderly or high-risk individuals, due to reduced procedural morbidity and faster recovery. Conversely, the BASIL-1 trial demonstrated potential long-term advantages of surgical bypass in selected patients, although the higher operative risk may limit its applicability in frail populations. In addition, findings from studies such as EPAR highlight the importance of careful postoperative surveillance following endovascular revascularization, as early detection of restenosis or re-occlusion is essential to maintain limb perfusion and prevent further ischemic complications.

Conclusion: Endovascular revascularization represents a safe and effective option for limb salvage in elderly patients with complex infrainguinal arterial occlusions, providing satisfactory short-term outcomes with minimal perioperative risk.

Keywords: Endovascular revascularization, Mechanical thrombectomy, Balloon angioplasty, Peripheral arterial disease

Modified Brostrom Repair with Internal Brace Augmentation for Chronic Lateral Ankle Instability: A Case Report

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Introduction: The anterior talofibular ligament (ATFL) is the most commonly injured ligament in ankle sprains. Chronic lateral ankle instability (CLAI) is a prevalent condition that occurs when conservative treatment fails, resulting in persistent ankle swelling and functional impairment accompanied by pain. Today, the open modified Broström technique is considered the gold standard for managing these cases, but its biomechanical strength may be insufficient in patients with high physical demands or poor ligament quality. We report the successful use of a hybrid technique combining anatomic repair with InternalBrace augmentation in a patient with severe mechanical instability.

Case Presentation: A 40-year-old male with recurrent left ankle sprains presented with chronic mechanical pain and functional instability. He reported spontaneous sprains during minor activities such as putting on shoes or rising from a chair. Examination revealed an antalgic gait, submalleolar swelling, and positive anterior drawer and talar tilt tests, consistent with lateral ligament insufficiency. The diagnosis implied a chronic rupture of the anterior talofibular ligament (ATFL). The hybrid reconstruction included anatomic ATFL reattachment to the fibula using two 2.8x11.7 mm Fastak titanium anchors, combined with suture tape augmentation using two PEEK SwiveLock anchors (4.75x19.1 mm and 3.5x15.8 mm) and FiberTape to create an InternalBrace as a secondary stabilizer. Weight-bearing on the left foot was permitted on the first postoperative day. The postoperative course was uneventful, with primary wound healing achieved and the rehabilitation protocol initiated, promoting accelerated recovery.

Discussion: The modified Broström technique is considered the gold standard for treating chronic lateral ankle instability. The InternalBrace technique serves as an augmentation, enhancing the stability of the repaired ligament. Recent literature demonstrates improved functional outcomes and increased joint strength with augmented repairs. Rehabilitation is also faster, with shorter time to return to activity compared to standard Broström repair. Importantly, complication rates appear similar between augmented and non-augmented procedures, supporting the safety and efficacy of the InternalBrace as an adjunct in selected patients.

Keywords: InternalBrace, modified Broström, PEEK, CLAI

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