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Targu Mures, Romania
16-18 May 2025

BOOK OF ABSTRACTS

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LONG QT SYNDROME IN PEDIATRIC PATHOLOGY

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Background: Long QT syndrome (LQTS) is a congenital disorder characterized by a prolongation of the QT interval on electrocardiograms (ECGs) and a predisposition to ventricular tachyarrhythmias, which can lead to syncope, cardiac arrest, or sudden death.

Objective: The aim of this paper is to highlight the importance of understanding the clinical, electrocardiographic and genetic characteristics of LQTS in order to improve early diagnosis and therapeutic strategies.

Material and methods: This descriptive study is conducted through the retrospective analysis of medical records of patients admitted to the Pediatric Cardiology Clinic III, IUBCVT, Târgu Mureș, between 2014-2024 and diagnosed with LQTS. The data were collected and analyzed to evaluate clinical characteristics, diagnostic methods, and applied therapeutic options.

Results: The current study included 30 patients diagnosed with LQTS, 57% of whom were male. In the 0–3 year age group, 33.3% of patients were identified, followed by 16.7% in both the 10–12 and 13–15 year groups, and 3.3% in the 7–9 year group. Notably, 10% of patients were diagnosed during the intrauterine period. Regarding QT interval duration: 43.33% of patients had a QTc interval between 0.5–0.55 seconds, 30% between 0.46–0.5 seconds, and 13.33% had a QTc of 0.55–0.6 seconds. The analysis of arrhythmias identified in this study shows that ventricular extrasystoles were the most common (43.33%), followed by supraventricular extrasystoles (23.33%), with ventricular fibrillation and torsade-de-pointes occurring in 10% of cases. In this cohort, 30% of patients received a cardiac defibrillator implant.

Conclusions: Although rarely encountered in pediatric practice, LQTS is a condition with a high risk of severe arrhythmias and sudden death, requiring early recognition and individualized management. The study results emphasize the importance of electrocardiographic screening in children with suggestive personal or family history, as well as the need for interdisciplinary collaboration to optimize diagnosis and treatment.

Keywords: Arrhythmias, extrasystoles, syncope, sudden death

UNVEILING THE LINK BETWEEN OBESITY, HYPERTENSION AND AORTIC VALVE PATHOLOGY

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Background: The two primary pathologies of the aortic valve are aortic stenosis and aortic insufficiency. Aortic stenosis represents the obstruction of the systolic outflow, whereas aortic regurgitation reflects the closure of the valvular leaflets. Their prevalence is increasing rapidly due to the ageing population.

Objective: To outline an overall perspective and to highlight the specific features and particularities of patients with aortic valve disease.

Material and methods: Performing a retrospective study, data of 170 patients records were analyzed from the 2nd Medical Clinic Department, Emergency County Hospital of Targu Mures (between 2022-2023). We evaluated baseline characteristics, electrocardiographic findings and hemodynamic parameters.

Results: Among the 170 patients, 78.24% presented isolated aortic insufficiency (AI), 0.59% isolated aortic stenosis (AS) and 21.18% presented both aortic valve diseases; mean age was 68.78+/-12.24 and 50.59% were female. Concerning obesity, 38.24% met the criterion of BMI >30kg/m^2. Analyzing the relationship between severity of AS and obesity (BMI >30kg/m^2) no significant correlation was found (p=0.361). In reference to the electrocardiographic findings, 64.71% showed a sinus rhythm, while 30.59% displayed atrial fibrillation. QTc intervals were compared across patients with AS, AI and combined aortic valve disease to see which of them presented pathological values. However, given the small patient cohort, these results could not be interpreted. 65.29% of patients were diagnosed with hypertension, while among the patients evaluated with ABPM, 76.27% exhibited a non-dipping pattern. The results indicate that in patients with aortic valve disease, the systolic blood pressure is associated with BMI (p=0.003).

Conclusions: In our study population, no association between the severity of AS and obesity was observed. The data interpretation reveals that arterial hypertension is highly prevalent among patients with aortic valvulopathies. Moreover, in patients with aortic valvular disease, the BMI value was significantly elevated in patients diagnosed with hypertension, compared to those without. (p=0.008).

Keywords: aortic stenosis, aortic regurgitation, obesity

PALLIATIVE SURGICAL CORRECTIONS IN COMPLEX CONGENITAL HEART DEFECTS

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Background: Complex congenital heart defects such as tricuspid valve atresia and univentricular heart are anomalies in which structural defects have a strong impact on oxygenation and hemodynamics. The condition is typically attributed to genetic factors, though environmental influences might contribute to malformations. The surgical corrections among these pathologies are systemic pulmonary shunt, Glenn partial cavo-pulmonary anastomosis and Fontan total cavo-pulmonary anastomosis.

Objective: The aim of the study is to analyze the postoperative course and complications following palliative interventions.

Material and methods: The present study is a descriptive -prospective -transversal study in which has been analyzed the clinical records of patients diagnosed with tricuspid valve atresia and univentricular heart, hospitalized in the Children's Cardiology III Clinic, IUBCVT - Târgu Mureș during 2019-2024.

Results: A total of 62 patients with ages between 1 month and 17 years were included, 41 male (66.13%) and 21 female (33.87%). Of the total 62 patients, 38 were diagnosed with univentricular heart representing 61%. Regarding the type of palliative surgical treatment: 45 patients underwent systemic-pulmonary stenting, 46 patients from Glenn partial cavo-pulmonary anastomosis and 17 patients from Fontan anastomosis. The following complications has been found in the group: contractile dysfunction (39%, 28%, 59%), pleuro-pericardial collections (22%, 13%, 47%), rhythm or conduction abnormalities (20%, 17%, 24%), thrombotic events (6.5%, 13%, 24%). Regarding thrombotic events, 47% of the group presented thrombophilic mutations, p 0.0037.

Conclusions: With advances in congenital cardiothoracic surgery, children born with a single ventricle can now live for decades into adulthood and beyond. The surgically created univentricular anatomy and physiology allows an orphan ventricle to support systemic circulation as pulmonary blood flows passively in the lungs.

Keywords: tricuspid valve atresia, univentricular heart, palliative surgical treatment.

THE ASSOCIATION BETWEEN THE CULPRIT VESSEL WITH SUBOPTIMAL FLOW GRADE AND NEW-ONSET ARRHYTHMIAS AFTER ST-ELEVATION MYOCARDIAL INFARCTION

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Background: Despite the decrease in the incidence of arrhythmias after ST-segment elevation myocardial infarction (STEMI) in the primary percutaneous intervention (pPCI) era, cardiac arrhythmias remain significant clinical challenges, potentially associated with the specific coronary artery involved.

Objective: To investigate potential associations between culprit vessel flow parameters, hospital length of stay, and occurrence of new-onset atrial fibrillation (AF) and ventricular tachycardia/fibrillation (VT/VF) following pPCI in STEMI patients.

Material and methods: This retrospective, observational study included all STEMI patients who underwent pPCI at the Emergency Institute for Cardiovascular Diseases and Transplantation of Târgu Mures, between January 2011 and May 2021. Cardiovascular risk factors, post-procedural Thrombolysis in Myocardial Infarction (TIMI) flow grade, and hospitalization duration were recorded. Relationships between post-pPCI culprit vessel flow grade and new-onset AF and VT/VF were assessed, along with its impact on hospital length of stay.

Results: Among 1368 patients (median age 62 years [IQR 18], 70% male), those with suboptimal post-pPCI TIMI flow were significantly older than those with normal flow (TIMI 3) across all analyzed vessels (all $p<0.05$). Suboptimal flow in the marginal artery was significantly associated with new-onset AF compared to patients with optimal TIMI flow (10.5% vs. 3.0%, $p=0.03$). No significant association was identified between suboptimal flow grade and new-onset VT/VF for any analyzed coronary vessel (all $p\geq0.05$). Hospital stay was significantly prolonged in patients experiencing VT/VF compared to those without (9±5 days vs. 8±3 days, $p<0.001$), whereas no significant difference was observed between patients with and without AF ($p=0.31$).

Conclusions: Suboptimal flow in the marginal artery is significantly associated with new-onset AF after STEMI, suggesting a potential role of culprit vessel-specific flow in arrhythmic risk following pPCI. This work was supported by the George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Târgu Mureș Research Grant number 171/5/09.01.2024.

Keywords: arrhythmias, culprit vessel, myocardial infarction, Thrombolysis in Myocardial Infarction

THE ROLE OF SURGERY IN LEFT VENTRICULAR PSEUDONEURYSM: A LIFESAVING APPROACH FOR ELDERLY PATIENTS. CASE REPORT

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Background: Ventricular pseudoaneurysm represented a life-threatening complication of myocardial infarction in this case. Its most feared progression was free wall rupture, with the potential to cause cardiac tamponade. In this context, surgical intervention was considered the gold standard treatment.

Objective: We highlighted the importance of recognizing and urgently treating ventricular pseudoaneurysm as a complication of myocardial infarction, in order to reduce mortality and restore cardiac function.

Material and methods: A 70-year-old patient with a history of chronic anterolateral myocardial infarction presented to the emergency department with dyspnea and exertional fatigue. Transthoracic echocardiography was performed as the first-line investigation and revealed dilated ventricular cavities with a low ejection fraction. Cardiac MRI showed transmural late gadolinium enhancement in the infarcted territories, indicating myocardial necrosis, and identified a saccular cavity arising from the inferolateral wall. Coronary angiography demonstrated an occlusion in segment 2 of the circumflex artery. Transesophageal echocardiography revealed a dilated left ventricular cavity, akinesia of the inferior walls, and a 37 mm discontinuity in the lower third of the left ventricle, consistent with a pseudoaneurysm. Color Doppler confirmed visible flow entering the cavity. Given the high risk of rupture, surgical repair was indicated.

Results: On hospital day 3, surgical resection of the left ventricular pseudoaneurysm and closure of the free wall defect were performed under general anesthesia using cardiopulmonary bypass with moderate hypothermia. The pseudoaneurysm was excised, and the ventricular wall was closed in two continuous layers with 4-0 Prolene, reinforced with Teflon felt. The heart resumed sinus rhythm with minimal inotropic support. Postoperative evaluation demonstrated a reduction in NYHA functional class and an improvement in left ventricular contractility, as evidenced by echocardiographic parameters.

Conclusions: This case illustrated the life-threatening nature of a left ventricular pseudoaneurysm as a late complication of transmural myocardial infarction. Once diagnosed, prompt surgical intervention was essential. The surgical treatment provided structural correction.

Keywords: Dilated ventricle, akinesia, pseudoaneurysm, ischemic cardiomyopathy

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SEVERE AORTIC STENOSIS – UNVEILING THE COMPLEX PICTURE BEHIND A HIP FRACTURE IN THE ELDERLY

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Background: Symptomatic severe aortic stenosis significantly increases the risk of adverse cardiovascular events during noncardiac surgery (NCS). Accordingly, aortic valve replacement should be considered before elective or time-sensitive NCS.

Objective: This clinical case aims to highlight the importance of an integrative assessment and individualized management in patients with multiple comorbidities, guided by a multidisciplinary team.

Material and methods: We report the case of an 86-year-old patient admitted with syncope and right hip trauma, resulting in a comminuted intertrochanteric fracture. In the emergency department, the patient developed bradycardia and hypotension, progressing to asystole. Cardiopulmonary resuscitation was promptly initiated. Following return of spontaneous circulation, the ECG showed atrial fibrillation with rapid ventricular response, right bundle branch block, T wave inversion in V1–V3 and left anterior fascicular block. Contrast-enhanced CT ruled out acute pulmonary embolism, but revealed a 61 mm ascending aortic aneurysm, mural thrombi in the descending aorta and a calcified type 1 bicuspid aortic valve. Echocardiography showed severe aortic stenosis, mildly reduced left ventricular ejection fraction due to global hypokinesia and mild concentric hypertrophy.

Results: A multidisciplinary team —including cardiology, cardiothoracic surgery, interventional cardiology and orthopaedic surgery— opted to postpone hip surgery in favour of addressing the severe aortic stenosis. Given the patient's age, frailty, and high operative risk (EuroSCORE II 16%), transcatheter aortic valve replacement (TAVR) was preferred, despite unfavourable anatomical and clinical factors, including the ascending aortic aneurysm, mural thrombi, bicuspid valve and the risk of complete atrioventricular block due to pre-existing conduction abnormalities. Right iliofemoral balloon angioplasty facilitated vascular access and emergency TAVR was performed, resulting in favourable hemodynamic outcomes without complications. Once stable, the patient underwent orthopaedic surgery.

Conclusions: A multidisciplinary approach enables the careful balancing of surgical priorities and procedural risks, illustrating that a staged intervention strategy can optimize outcomes in complex, high-risk patients.

Keywords: aortic stenosis, aortic aneurysm, TAVR, NCS

THE POWER OF EARLY DETECTION: HOW FETAL DIAGNOSIS TRANSFORMS OUTCOMES IN CRITICAL PULMONARY STENOSIS

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Background: Critical pulmonary stenosis (CPS) is a life-threatening congenital heart defect characterized by severe obstruction of the right ventricular outflow tract (RVOT), resulting in compromised myocardial function and tricuspid valve dysfunction. Prenatal diagnosis via fetal echocardiography is associated with the selection of appropriate treatment strategies and improved neonatal outcomes.

Objective: The aim of this case report is to highlight the importance of early therapeutic intervention based on fetal diagnosis, clinical presentation, and postpartum assessment.

Material and methods: We present the case of an 8-week-old newborn diagnosed antenatally through echocardiographic evaluations with a dysplastic pulmonary valve with severe stenosis, a dysplastic tricuspid valve with significant regurgitation and a hypoplastic right ventricle. Postnatally, the newborn exhibited poor adaptation, characterized by cyanosis and generalized hypotonia. Cardiological assessment confirmed the prenatal diagnoses, with echocardiography revealing a hypertrophied right ventricle with a bipartite morphology. Prostaglandin therapy was initiated to maintain ductus arteriosus patency. On day 7, pulmonary valvuloplasty was performed using a Tyshack II balloon, with a favorable postoperative course. Due to subsequent suboptimal findings on serial echocardiograms, the need for reconstructive surgery of the RVOT was established, involving the placement of a transannular right ventricle-pulmonary artery patch and ventricular myectomy. Postoperatively, the course was complicated by severe contractile dysfunction, pneumonia, and pleural effusion, all treated successfully.

Results: Serial echocardiographic assessments revealed an improvement in right ventricular contractility, resolution of pleural effusions and a more favorable morphological appearance of the right ventricular cavity. Based on these reveals, the patient was discharged in good general condition, hemodynamically and respiratory stable.

Conclusions: Early prenatal diagnosis and intervention in CPS are essential for improving hemodynamic stability and right ventricular function, enhancing neonatal outcomes.

Keywords: critical pulmonary stenosis, right ventricle outflow tract, fetal echocardiography

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NAVIGATING DEXTRO-TRANSPOSITION OF THE GREAT ARTERIES FROM FETAL LIFE TO NEONATAL SURGERY: A MULTIDISCIPLINARY CASE REPORT

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Background: Dextro-transposition of the great arteries (d-TGA) is a critical congenital malformation (incidence: 1 in 3,500–5,000 live births) characterized by ventriculo-arterial discordance and parallel circulation. Systemic oxygenation relies on intercirculatory shunting via atrial septal defect (ASD), ventricular septal defect (VSD), or patent ductus arteriosus (PDA). Prompt diagnosis by echocardiography is essential for anatomical evaluation and initiation of prostaglandin therapy or balloon atrial septostomy.

Objective: This report details a prenatally diagnosed d-TGA case, emphasizing the necessity of delivery and management in a specialized pediatric cardiology center.

Material and methods: The following case describes a 22-day-old neonate diagnosed in utero at 24 weeks with d-TGA and a non-restrictive patent foramen ovale (approximately 5.5 mm, bidirectional shunt). At 40 weeks gestation, echocardiographic reevaluation revealed a restrictive foramen ovale. Upon birth, the neonate presented cyanosis and oxygen saturations of 60%. Following the echocardiography the diagnosis of d-TGA, a subaortic VSD, and a restrictive ASD was confirmed. A Rashkind atrial septostomy was performed, and the ductus arteriosus was kept open with prostaglandin infusion. One week later, the patient underwent arterial switch operation, ligation of the persistent ductus arteriosus, and closure of the VSD and ASD. Postoperatively, the pacient suffered mild contractile dysfunction, hemodynamic instability, and supraventricular tachycardia, which were successfully managed.

Results: Subsequent echocardiographic evaluations show improved contractility, minor neo-aortic and neo-pulmonary valve insufficiency, mild tricuspid regurgitation, wide pulmonary branch stenosis after Lecompte maneuver and a small subaortic VSD with minimal shunting. Long-term cardiological follow-up is required to monitor for complications.

Conclusions: Fetal diagnosis of d-TGA enables planned delivery and timely surgical correction, significantly improving neonatal outcomes and reducing the risk of perioperative complications.

Keywords: transposition of the great arteries, arterial switch, ecocardiographic evaluations

TACHYARRHYTHMIAS ASSOCIATED WITH COR TRIATRIATUM

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Background: Cor triatriatum is a rare congenital heart defect where a fibromuscular membrane divides the atrium—usually the left—into two chambers, possibly obstructing blood flow. While it often presents with signs of pulmonary venous congestion or mimics mitral valve disease, it is increasingly linked to atrial tachyarrhythmias due to the abnormal atrial anatomy and resulting hemodynamic stress, especially atrial fibrillation or flutter.

Objective: This paper aims to analyze the therapeutic approach for paroxysmal atrial flutter (AFL) associated with persistent atrial fibrillation (AF) in a female patient treated with amiodarone and diagnosed with amiodarone-induced hyperthyroidism, in order to emphasize the role of multidisciplinary teams.

Material and methods: A 55-year-old female patient with a history of persistent AF and arterial hypertension, previously treated with multiple antiarrhythmic drugs including amiodarone, presented to the emergency department with palpitations. Clinical and echocardiographic evaluation revealed the presence of AFL as well as cor triatriatum. Initial treatment, following discontinuation of amiodarone, included beta-blockers, anxiolytics, anticoagulants, and antihypertensive agents.

Results: The patient's symptoms improved under beta-blocker and anxiolytic therapy, with a return to a stable sinus rhythm (75 bpm) and good control of blood pressure values. In collaboration with an endocrinologist, an evaluation of the amiodarone-induced hyperthyroidism was conducted. The association of AFL with AF led to the recommendation of cavotricuspid isthmus ablation for the curative treatment of AFL. Due to the congenital heart disease (cor triatriatum), the patient was not eligible for pulmonary vein isolation or substrate ablation aimed at rhythm control in AF.

Conclusions: This case highlights the importance of integrated multidisciplinary management in the treatment of patients with recurrent paroxysmal AFL, particularly in the context of amiodarone therapy. Approaches must be personalized, including not only antiarrhythmic and anticoagulant treatment but also lifestyle modifications, continuous monitoring, and specialized consultations to prevent complications and optimize patient prognosis.

Keywords: flutter, fibrillation, ablation, amiodarone, hyperthyroidism

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INSIGHT INTO COARCTATION OF THE AORTA: A COMPLEX CLINICAL COURSE AFTER DELAYED DIAGNOSIS

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Background: Coarctation of the aorta (CoA) is one of the most common congenital heart defects and represents a narrowing in aorta causing obstruction of the blood flow. Clinical presentation can vary depending on a number of factors including the severity of the CoA and the presence of associated cardiac and non-cardiac lesions, including cerebral aneurysms. CoA may be diagnosed in late childhood patients who may present with complications of long-standing secondary hypertension.

Objective: The aim of this case report is to highlight the importance of early diagnosis of children with CoA.

Material and methods: We present the case of an adolescent diagnosed at the age of 13-years old with severe CoA after a hemorrhagic stroke due to ruptured left middle cerebral artery aneurysm treated with stent-assisted coil embolization. The suspicion of CoA was raised during endovascular treatment, requiring the admission of the patient in our tertiary centre. The clinical exam revealed right-sided hemiparesis, aphasia, an ejection systolic murmur, the absence of peripheral pulses in lower limbs, stage II secondary hypertension, with a difference of more than 20mmHg between the upper and lower limbs. The echocardiography and angio-CT confirmed the severe CoA with aortic arch hypoplasia. The patient underwent surgical treatment: bypass between left subclavian artery and descending aorta with a 16mm Dacron graft.

Results: The immediate postoperative results were favorable, initially the associated antihypertensive therapy (calcium channel blocker+beta-blocker) controlled the systolic blood pressure. At two-year postoperative follow-up the blood pressure was elevated, with a difference between the upper and lower limb of 30-40mmHg. The imaging showed a significant narrowing at the proximal side of the Dacron prothesis considering endovascular stenting.

Conclusions: CoA remains a diagnostic and therapeutic challenge due to the difficulties of wide-ranging anatomical variations and long-term cardiovascular complications. Hypertension remains a key risk factor for adverse cardiovascular outcomes.

Keywords: coarctation of the aorta, children

PROGNOSTIC FACTORS REGARDING SUCCESSFUL ELECTRICAL CARDIOVERSION FOR SUPRAVENTRICULAR TACHYCARDIAS

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Background: Electrical cardioversion is an alternative procedure used to treat symptomatic supraventricular tachycardias. While mostly successful, the procedure's outcome can be influenced by several factors.

Objective: Our objective was to showcase possible prognostic factors involved in successful electrical cardioversions.

Material and methods: Using records from 2020 to 2023 at the Emergency Institute for Cardiovascular Disease and Heart Transplant of Târgu Mureș, we diligently collected patient data based on incidence, age, gender, history of relevant diseases and echocardiography reports. A total of 110 patients were included in our study. The patients included in this study benefited from at least one elective electrical cardioversion during their hospitalization. The associations were determined by logistic regression, with the significance threshold set to 0.05.

Results: All atrial tachycardias and atrial flutters were successfully converted. The rate of successful cardioversion was 91.8% immediately after the procedure and 85.5% at discharge. Regarding immediate post-procedure success, patients under the age of 50 had a high risk of failure (OR=9.30, p=0.003). Patients with atrial fibrillation classified as permanent were associated with a major risk of failure (OR=50.00, p=0.001). At discharge, patients under the age of 50 were still at risk of failure (OR=5.65, p=0.009), as well as those with permanent atrial fibrillation (OR=21.46, p=0.010).

Conclusions: Despite its immediate high success rate, at discharge, the success rate was slightly lower. Permanent atrial fibrillation and age under 50 were the strongest negative outcome factors. Further research utilizing prospective study design is needed to confirm the findings.

Keywords: Supraventricular tachycardias, Atrial fibrillation, Electrical Cardioversion, Risk factors

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BYPASS OCCLUSION OF THE SUPERFICIAL FEMORAL ARTERY USING A SILVER GRAFT - A CASE REPORT.

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Background: The purpose of a bypass surgery is to make a new path, so that blood can reach those areas in which the circulation was obstructed by various reasons.

Objective: The aim of this procedure was to establish the blood flow in the popliteal artery, by creating an anastomosis between the femoral and popliteal artery with a silver graft.

Material and methods: The patient was a 59-year old male with pain in the left leg. The arteriography revealed the occlusion of the superficial femoral artery, which lead to intermittent claudication. The popliteal artery was partially supplied with blood. The purpose of this procedure was to reestablish the normal blood flow in the popliteal artery, bypassing the occlusion in the superficial femoral artery. We opted for a silver graft, instead of using the great saphenous vein. The graft connected the common femoral artery to the supra-patellar segment of the popliteal artery. We decided to do 3 moderate incisions, instead of a large one due to better post-op recovery.

Results: After the anastomosis had been established and the forceps removed, we could feel the pulse, not only on the prothesis, but also in the distal portion of the posterior tibial artery which, prior to the surgery, had no blood flow. 5 days after the surgery, the patient had no issue.

Conclusions: The purpose of the surgery was to reestablish the circulation in the popliteal artery. In order to bypass the occlusion in the superficial femoral artery, we decided to use a silver graft which, according to some recent studies, reduced the chance of infection and also of thrombi to occur. The severity of the occlusion, combined with the lower amount of blood, prevented blood flow in the posterior tibial artery.

Keywords: bypass surgery, silver graft, superficial femoral artery.

THE ROLE OF MATERNAL EDUCATIONAL LEVEL IN THE TIMING OF COMPLEMENTARY FEEDING

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Background: Complementary feeding refers to the gradual and progressive introduction of semi-solid and solid foods to supplement an infant's exclusive milk-based diet and to meet nutritional requirements beyond 6 months of age. According to the World Health Organization (WHO), complementary feeding should begin at 6 months.

Objective: This study aimed to assess the association between maternal educational level and the timing of complementary feeding initiation, with a particular focus on whether lower levels of education are associated with earlier initiation in infants.

Material and methods: This observational study included 151 mothers of children aged between 6 months and 5 years, admitted to the Pediatrics 1 Clinic of the County Emergency Hospital Târgu Mureș, who consented to participate. Data were collected over a three-month period using a questionnaire that gathered information on maternal characteristics and the timing of complementary feeding initiation. The data were entered into Microsoft Excel and subsequently analyzed using SPSS.

Results: A statistically significant difference ($p = 0.028$) was found between maternal educational status and the timing of complementary feeding initiation. Among mothers with lower secondary education, 7.9% initiated complementary feeding before 4 months, and 15.2% between 4 and 6 months. In contrast, no mothers with university or postgraduate education initiated complementary feeding before 4 months, while only 0.7% of those with high school and post-secondary education did so. Additional statistical analysis confirmed a statistically significant association between maternal educational level and the timing of complementary feeding initiation ($p = 0.003$).

Conclusions: Mothers with lower education levels were more likely to initiate complementary feeding earlier than recommended, in contrast to those with higher educational attainment, who tended to follow the recommended timing.

Keywords: complementary feeding, maternal education, infants

EPIDEMIOLOGICAL AND CLINICAL STUDY OF PATIENTS WITH AUTOIMMUNE BULLOUS DISEASES.

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Background: The prevalence of autoimmune diseases is constantly rising, making bullous dermatoses—though rare—a significant concern for patients' quality of life. These are characterized by autoantibodies direct against cell adhesion proteins, leading to diagnostic and therapeutic difficulties. As a result, managing these conditions demands multidisciplinary and personalized care.

Objective: The objective of our study aims to optimize therapeutic strategies by analyzing sociodemographic variables, comorbidities and dominant symptoms, contributing to the development of more effective diagnostic and treatment protocols.

Material and methods: I conducted an observational, descriptive study on 60 adult patients with bullous dermatoses hospitalized in the Dermatology Clinic of Târgu-Mureș between 2018-2024. The information was extracted from the patients' medical records, anonymized and centralized in Microsoft Excel. Statistical analysis was performed with GraphPad Prism 9 ,using descriptive statistics, Shapiro-Wilk, Mann-Whitney, Chi-square and Fisher test, with a significance threshold of $p<0,05$.

Results: The mean age of the patients was 68.5 years, with most cases occurring between 62-72 year range. A statistically significant association was observed between age and diagnosis ($p=0.013$): bullous pemphigoid was more prevalent in patients >60 years, while pemphigus predominated in those <60 years. The two conditions accounted 70% of all cases. A higly significant association was observed between the type of lesion and diagnosis ($p<0.0001$). Pemphigus vulgaris typically presented with flaccid bullae, whereas bullous pemphigoid was characterized by tense bullae. Additionally, pain was significantly more frequent in pemphigus vulgaris ($p=0.028$), while pruritus predominated in bullous pemphigoid ($p<0.001$). The most common comorbidities were hypertension and diabetes, though their prevalence did not differ. Notably, pemphigus vulgaris cases had significantly higher rates of mixed dyslipidemia ($p=0.039$).

Conclusions: The study highlights significant differences between pemphigus vulgaris and bullous pemphigoid according to age, lesion type and clinical manifestations, highlighting the importance of early differential diagnosis and a personalized therapeutic approach.

Keywords: autoimmune bullous diseases, pemphigus vulgaris, bullous pemphigoid

THE IMPACT OF OCCUPATION ON REPRODUCTIVE HEALTH: A COMPARISON OF MEDICAL VERSUS NON-MEDICAL PROFESSIONALS IN CERVICAL CANCER PREVENTION

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Background: Worldwide,cervical cancer is one of the most common types of cancer among women and represents a major global public health concern.The relationship between educational achievement, particularly medical education, and the value placed on cervical cancer prevention offers an important perspective for evaluating and improving screening programs.

Objective: This study aims to evaluate the impact of medical knowledge on the prevention and early detection of cervical cancer

Material and methods: To compare these aspects, I conducted a comparative observational study between December 2024 and March 2025, using an online questionnaire, targeting both individuals within and outside the medical field. A total of 158 responses were collected by the end of the observation period. The questionnaire consisted of 21 questions aimed at evaluating personal practices regarding reproductive health. The statistical analysis was conducted using Chi-Square test.

Results: Of the 158 individuals that completed the questionnaire, 82 (51,90%) were part of the medical field, and 76 (48,10%) had non-medical professions. When comparing the frequency of gynecological appointments, 67% of medical professionals reported having one within the past year, compared to only 50% in non-medical fields (p value≈ 0,01). Regarding vaccination rates, 20,72% of women in medical field were vaccinated, compared to only 2,63% among those without medical training (p <0,001).

Conclusions: Working in the medical field appears to have a positive impact on the behavior of women when it comes to preventing cervical cancer, such as attending gynecological appointments more often and having a higher vaccination rate. This study underlines the importance of enhancing health education regarding prevention and screening of cervical cancer.

Keywords: Cervical cancer prevention, medical professionals, reproductive health, screening

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RETROSPECTIVE STUDY ON OPERATED ADRENAL TUMORS

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Background: Adrenal tumors are relatively rare, but their incidence increases with age. Around 15–30% of the detected adrenal tumors are functional, meaning that they secrete hormones (e.g. cortisol, aldosterone, catecholamines, androgens). The most common types are adrenal adenoma, pheochromocytoma, and adrenocortical carcinoma.

Objective: This study aims to show the importance of early detection and surgical intervention in improving symptoms and quality of life in patients with adrenal tumors.

Material and methods: Our retrospective analysis involves patients who were diagnosed with adrenal tumors at the Clinic of Endocrinology and who subsequently underwent surgical intervention in the 2nd Department of Surgery, UMFST Targu Mures, between 2014-2024. For this study, we analyzed the patients' preoperative and postoperative observation sheets, as well as the histopathology reports.

Results: Within the examination period, there were 36 cases of operated adrenal tumors. The preoperative diagnosis was Cushing's syndrome (n=11), pheochromocytoma (n=10), primary hyperaldosteronism (n=9), androgen-secreting tumors (n=2) and non-functional incidentalomas (n=4). The gender demographics consists of 72% females and 28% men, with an average age of 50. Before surgery, hypertension was present in 86% of cases. Prediabetes/diabetes mellitus were identified in 39% of patients. Only 22 patients out of 36 attended the postoperative monitoring. After surgery, arterial pressure normalized in more than half of the cases. We also found normalization of glycemic values in 82% of cases. On histopathological exam, 3 patients were identified with malignant tumors: 2 carcinomas and one pheochromocytoma. Persistence of symptoms was recorded in 7 cases after surgery.

Conclusions: The importance of preoperative and postoperative diagnosis consists in detecting functional tumors that can cause severe endocrine syndromes (e.g. Cushing's syndrome, hyperaldosteronism, pheochromocytoma), leading to major cardiovascular and metabolic complications and in detecting adrenocortical carcinoma- a rare but highly aggressive tumor -, whose early diagnosis can improve survival chances.

Keywords: adrenal tumors, Cushing's syndrome, pheochromocytoma, primary hyperaldosteronism ,adrenocortical carcinoma

GENDER DIFFERENCES OF DEPRESSION SYMPTOMS IN DIABETES MELLITUS PATIENTS

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Background: Depression is a common medical condition among patients with chronic diseases, with evidence indicating its negative impact on the progression and prognosis of these

conditions. In diabetes mellitus, a chronic disease with numerous complications, depression is twice as frequent as in the general population, with literature suggesting that the relationship between the two conditions is bidirectional.

Objective: The aim of our study was a gender-based comparative analysis of depressive symptoms in patients with diabetes mellitus.

Material and methods: The study was conducted prospectively on diabetic patients admitted to the Internal Medicine Clinic of the Mures County Clinical Hospital during the period 1.01.2025-30.04.2025. Patients who agreed to participate in the study were asked to complete the PHQ-9 questionnaire, a validated method for screening, diagnosing, and monitoring depression. The questionnaire consists of 9 questions assessing the presence of depressive symptoms over the previous two weeks, with a scoring system based on the presence and frequency of symptoms. The total questionnaire score was analyzed by gender, and a comparative gender-based analysis was performed for each question. Statistical analysis was conducted using the t-test, with a p-value <0.05 considered statistically significant.

Results: A total of 56 patients participated in the study, including 28 women. There were no significant gender differences in terms of patient age (69.11 ± 10.93 for women vs. 66.43 ± 9.20 for men, p=NS). Statistical analysis did not reveal significant gender differences in the scores for any of the questionnaire items or in the total PHQ-9 score (7.21 ± 3.61 for women vs. 8.00 ± 4.15 for men, p=0.45).

Conclusions: We did not find significant gender-related differences in depressive symptoms quantified by the PHQ-9 questionnaire in patients with diabetes mellitus. We consider the most important limitation of the study to be the small number of patients; the research will continue with a larger sample size.

Keywords: diabetes mellitus, PHQ-9 questionnaire, gender differences

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CHALLENGES AND SOLUTIONS IN THE MANAGEMENT OF CRITICALLY ILL PSYCHIATRIC PATIENTS IN INTENSIVE CARE

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Background: Critically ill psychiatric patients admitted to intensive care units (ICUs) present complex challenges due to the interplay between acute somatic conditions, psychiatric decompensation, and psychotropic-medication interactions. This population is at heightened risk for systemic complications, requiring integrated interdisciplinary management.

Objective: This study aimed to evaluate the management of critically ill psychiatric patients in the ICU, focusing on diagnostic categories, treatment interactions, clinical complications, and patient outcomes.

Material and methods: A retrospective, descriptive study was conducted on 78 patients admitted between 2022 and 2024 to the ICU of Târgu Mureș County Clinical Hospital. Patients aged 18–80 years, with concurrent psychiatric and somatic diagnoses, were included. Data collected included demographics, primary diagnoses, treatment regimens, complications, and laboratory/imaging findings. Statistical analyses (Chi-square and Pearson-R) were used, with $p<0.05$ considered significant.

Results: Alcohol-related disorders (25%), psychoses (20%), and intentional poisoning (15%) were the most common psychiatric conditions. Frequent ICU complications included agitation requiring sedation (60%), delirium (60%), and mechanical ventilation-associated pneumonia (20%). Notably, 44% required physical restraint, and 34% underwent mechanical ventilation. Rhythm disturbances occurred in 40% (e.g., sinus tachycardia, atrial fibrillation), often linked to electrolyte imbalance and QT-prolonging medications such as haloperidol or antidepressants. Severe metabolic disturbances (e.g., hyperlactatemia, acidosis) were common. The overall survival rate was 70%, while mortality reached 20%, particularly among those with SOFA scores >9 and procalcitonin >2 ng/mL. Seasonality patterns were observed, with admissions peaking in winter and early spring.

Conclusions: The management of psychiatric ICU patients demands vigilant monitoring, tailored pharmacologic strategies, and close collaboration among intensivists and mental health professionals. Cardiac arrhythmias, metabolic instability, and treatment resistance are prevalent, highlighting the importance of integrated protocols to reduce morbidity and improve outcomes.

Keywords: Critically ill psychiatric patients, Cardiac arrhythmias, Psychotropic drug interactions , Intensive care unit (ICU)

POPULATION PERCEPTION AND ATTITUDES TOWARDS COLORECTAL SCREENING

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Background: Colorectal cancer (CRC) represents a significant public health issue. Screening effectively reduces mortality, yet participation in Romania remains suboptimal. Understanding the factors associated with participation is essential for optimizing preventive strategies.

Objective: To evaluate CRC screening participation, identify the main reasons for and against participation, and analyze associated socio-demographic, knowledge, and attitudinal factors among individuals over 40 years old.

Material and methods: A descriptive cross-sectional study was conducted on a convenience sample of 149 participants (age >40 years) using an online questionnaire. Data collected included socio-demographics, CRC screening status, reasons for/against screening, knowledge level, attitudes towards screening/medical system/doctors, and receiving information from a general practitioner (GP). Data analysis involved descriptive statistics and the Chi-Square test ($p<0.05$).

Results: The CRC screening participation rate in the sample was 26.8%. The main reasons cited for undergoing screening were “meeting age/risk criteria” (46.2%) and “desire for prevention/routine check-up” (42.3%). The most frequent barrier reported by non-screened individuals was “lack of information/recommendation/perceived need” (49%). Screening participation was significantly associated with receiving information from a GP ($p<0.001$). No significant associations were found between screening status and reported attitudes towards screening, doctors, or the medical system.

Conclusions: CRC screening participation is low (26.8%) in the studied group. Receiving information from a GP appears to be a key determinant for screening uptake. The lack of information/recommendation/perceived need is the major barrier and requires targeted interventions focusing on the GP’s role and increasing awareness.

Keywords: Colorectal cancer screening, participation, motives, barriers.

THE INFLUENCE OF PSYCHIATRIC PATHOLOGIES ON EATING PATTERNS: A CROSS-SECTIONAL ANALYSIS

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Background: Eating behavior among psychiatric patients frequently exhibits significant dietary changes that alter both mental and physical health. Affective disorders, such as depression or anxiety, may be associated with various maladaptive dietary patterns, while psychotic disorders may face challenges related to food intake.

Objective: This study aims to emphasize the relationship between altered eating patterns and psychiatric pathologies. The findings will provide information for targeted interventions that address both mental health and nutritional needs.

Material and methods: This cross-sectional study recruited 80 persons, including psychiatric patients with depression, anxiety, or schizophrenia, from outpatient clinics. We collected a structured dietary anamnesis questionnaire from each participant. Associations between psychiatric symptoms and modifications in eating behavior, along with demographic and medical treatment, were statistically analyzed.

Results: Initial results indicated increased occurrences of binge eating and restrictive dieting among those with depression, while in those with anxiety, it tends to be connected with emotional eating. Data analysis indicated a significant relationship between the intensity of psychiatric symptoms, treatments, and inconsistent dietary intake, while demographic factors also play a role in these behaviors. Up to 27% of patients with depression experience changes in appetite and eating patterns, with about 54% reporting increased intake and weight gain, while 46% experience weight loss. These findings emphasize the importance of incorporating nutritional evaluation into mental health care.

Conclusions: Lately, the connection between nutrition and mental health has received increased interest regarding psychodietetics and nutripsychiatry. We identified a high prevalence of specific altered eating behaviors among psychiatric patients, particularly in those with affective disorders or psychotic ones.

Keywords: psychiatric, eating behaviour, nutripsychiatry

MULTIFACTORIAL INFLUENCE ON REMISSION AND RELAPSE IN HODGKIN LYMPHOMA – A RETROSPECTIVE ANALYSIS

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Background: Hodgkin lymphoma is a rare hematologic malignancy with increasing incidence in young populations and favorable overall prognosis. However, a proportion of patients experience relapse or disease progression, which necessitates a better understanding of prognostic factors.

Objective: This study aimed to evaluate the influence of histologic subtype, sex, age, and Ann Arbor stage on therapeutic response in Hodgkin lymphoma.

Material and methods: We conducted a retrospective observational study including 28 patients diagnosed and treated at the Hematology Department of the County Emergency Clinical Hospital in Târgu Mureș. Data collected included histologic subtype, sex, age at diagnosis, Ann Arbor stage, and therapeutic response evaluated by PET-CT (complete metabolic remission, progression, or relapse). Statistical analysis was performed using descriptive methods, Chi^2, and Student's t-test.

Results: The most frequent histologic subtype was nodular sclerosis (57.7%), followed by mixed cellularity (34.6%) and lymphocyte predominance (7.7%). Complete metabolic remission was achieved in 75% of cases, with progression in 21.4% and relapse in 3.6%. Patients with nodular sclerosis had the most favorable outcomes (93.3% remission, no relapse or progression), while those with mixed cellularity had 69.2% remision, no relapse and 30,8% progression. Lymphocyte predominance had a rate of remision of 50%, progression of 25% and relapse of 25%.

Early clinical stage (IIA/IIB) was associated with higher remission rates (100% and 88.9%) compared to advanced stages (75% in IIIA, 66.7% in IVB). Patients under 45 years had better outcomes (85.7% remission) than older patients (64.3%). Sex had a lesser impact: remission was observed in 91.7% of females and 85.7% of males.

Conclusions: Combined risk factors - male sex, age >45, advanced stage, and mixed cellularity were associated with poorer outcomes. Nodular sclerosis, early stage, and younger age predicted better remission.

Keywords: Hodgkin lymphoma, histologic subtype, remission, relapse, prognostic factors.

PSYCHOACTIVE SUBSTANCE USE AND ASSOCIATED PSYCHIATRIC COMORBIDITIES

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Background: The global surge in psychoactive substance consumption presents a critical challenge for psychiatry. Substance use often coexists with psychiatric disorders, forming complex comorbid profiles. This dual pathology complicates diagnosis, masks symptoms, and increases the risk of mismanagement. Exploring the relationships between substance use and psychiatric comorbidities is essential in order to improve the outcomes and preventing relapses.

Objective: To analyze the associations between substance use, demographic characteristics and key clinical variables in hospitalized psychiatric patients.

Material and methods: This retrospective observational study analyzed data from 120 psychiatric inpatients, admitted from 2020 to 2024 at the Psychiatry I Clinic in Targu-Mures, including sociodemographic information, type and frequency of substance use, psychiatric diagnoses, medications, and length of hospitalization. Chi-square tests, t-tests, and Pearson correlation were used to identify significant relationships ($p < 0.05$).

Results: Out of the analyzed sample, the most frequently used substances were THC (n=84), synthetic cannabinoids (n=30), methamphetamine (n=23), MDMA (n=21) and amphetamine (n=18). A significant correlation emerged between occupation and previous psychiatric admissions ($\chi^2 = 14.532$, $p = 0.024$), suggesting that employment status may influence long-term psychiatric trajectories or access to care. Another statistically significant association was found between THC use and synthetic cannabinoid use ($\chi^2 = 5.744$, $p = 0.0165$), highlighting a pattern of co-consumption. A negative correlation between age of first use and number of substances consumed was identified ($r = –0.253$, $p = 0.01056$) indicating that earlier substance usage is associated with broader poly-drug exposure.

Conclusions: Substance use remains deeply intertwined with psychiatric pathology. Early initiation of substance use is linked to broader poly-drug involvement and may complicate clinical management. The co-use of THC and synthetic cannabinoids reflects risky consumption patterns. Additionally, the association between occupational status and prior hospitalizations highlights the social dimension of psychiatric vulnerability.

Keywords: substance use, psychiatric comorbidity, psychoactive

A RARE CAUSE OF NEONATAL SALT WASTING: CLINICAL MANAGEMENT OF A CASE WITH PSEUDOHYPOALDOSTERONISM DETECTED WITH A NOVEL HOMOZYGOUS VARIANT IN THE SCNN1A GENE

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Background: Pseudohypoaldosteronism (PHA) is a rare condition that can lead to life-threatening hyperkalemia, cardiac arrest and death if not rapidly recognised and treated. Systemic PHA results from the inactivation of variants in genes encoding subunits of the epithelial sodium channel (ENaC). Frequent dose revision is required in oral replacement therapy in patients with systemic PHA. This condition requires a lifelong close follow-up and treatment process in patients.

Objective: In this case study,we present the clinical follow-up of a newborn diagnosed with PHA who presented at 9 days of age with severe dehydration, malnutrition, vomiting and lethargy. A pathogenic homozygous mutation, c.1536C>A p.(Tyr512*), was identified in ex

Material and methods: A 9-day-old male presented with vomiting, lethargy, poor feeding, and weight loss.Labs showed hyponatremia (Na 117 mmol/L), hyperkalemia (K 8.7 mmol/L), and metabolic acidosis. Initial treatment for suspected adrenal insufficiency was ineffective. Persistently abnormal electrolytes, high aldosterone, and elevated urinary sodium supported systemic PHA1. Genetic testing revealed a homozygous c.1536C>A p.(Tyr512)* mutation in the SCNN1A gene, a novel pathogenic variant.

Results: The patient was hospitalized multiple times in infancy due to electrolyte imbalances. His condition stabilized on oral salt, fludrocortisone, and calcium polystyrene sulfonate. SCNN1A mutations are linked to PHA1 and conditions like Liddle syndrome. Other SCNN1A mutations have shown variable severity, including fatal arrhythmias due to hyperkalemia.

Conclusions: In our case, a homozygous variant c.1536C>A p.(Tyr512*) was identified in exon 11 of the SCNN1A gene. Chang et al. have shown that inactivating mutations in the gene encoding the ENaC alpha subunit can lead to PHA1. Early recognition and treatment of systemic PHA1 are critical to prevent life-threatening complications. Genetic testing plays a key role in diagnosis and management, and identifying novel mutations like Tyr512* enhances understanding and supports better clinical outcomes and genetic counseling.

Keywords: Systemic pseudohypoaldosteronism, hyperkalemia, SCNN1A, hyponatremia

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FROM DEEP VEIN THROMBOSIS TO CHRONIC ULCERS: A CASE REPORT ON INFERIOR VENA CAVA MALFORMATIONS

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Background: Chronic venous insufficiency (CVI) is a progressive condition caused by impaired venous return. It leads to symptoms ranging from varicose veins to skin changes and ulcers, with CEAP class C6 representing the most severe form, characterized by active venous ulceration. The progression to CEAP C6 CVI poses a significant therapeutic challenge, particularly in younger patients.

Objective: This case underlies the connection between young-onset deep vein thrombosis due to congenital malformation of the inferior vena cava (IVC) and end-stage CVI manifesting as early-onset extensive bilateral superinfected ulcers.

Material and methods: We report a case of a 48-year-old female patient admitted to the Dermatology Clinic for the evaluation and management of bilateral superinfected ulcers in evolution for 25 years. Clinical examination identified multiple bilateral ulcers on the calves, ranging in size (2x1 cm to 20x10cm), with undermined edges and yellowish purulent discharge, surrounded by ill-defined erythematous plaques. Computer tomography (CT) was carried out.

Results: CT scan identified narrowing of the inferior vena cava with proeminent paraumbilical collateral veins consistent with caput medusae. Sepsis-induced hemodynamic instability required ICU transfer, fluids, vasopressors, and dual intravenous antibiotics (Meropenem + Colistin), and enoxaparin for the associated thromobosis risk.

Conclusions: Though rare, IVC malformations can cause serious long-term effects, especially in young patients. Early diagnosis and proactive treatment of complications can significantly improve outcomes. The best care involves a multidisciplinary approach, including thorough vascular assessment, infection control, and wound management.

Keywords: deep vein thrombosis, inferior vena cava malformation, chronic venous insufficiency, superinfected ulcers

UNRAVELING THE DIAGNOSTIC COMPLEXITY OF CROHN'S DISEASE: A CASE REPORT OF COEXISTING CONDITIONS

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Background: Crohn's disease is a chronic inflammatory bowel disease characterized by granulomatous inflammation that can affect any part of the gastrointestinal tract.

Objective: This paper highlights the importance of complementary investigations, including biopsies, imaging, and microbiological tests, to ensure timely, accurate diagnosis and treatment.

Material and methods: We present the case of a 36-year-old female patient with no significant medical history, who was admitted for weight loss (20 kg in 2 months) and watery diarrhea (5-6 loose stools per day) over the past six months.

Results: Given the symptomatology, additional investigations were performed. Colonoscopy: Multiple irregular ulcers of varying depths were observed, extending from the cecum to the rectum; the terminal ileum was not affected. Histopathology: moderate Crohn's disease – severity score of 2. MRI enterography: Thickening of the intestinal mucosa and intestinal wall edema, areas of stenosis in the ascending colon.

Based on the Montreal staging (A2L2B2), treatment with Prednisone and Azathioprine was initiated, with plans for subsequent reevaluation. Three months later, the patient presented to the emergency department with hematochezia, severe anemia requiring transfusion and significant inflammatory syndrome. Endoscopic reevaluation: Multiple deep ulcers, some with active bleeding; circumferential ulcerations with stricture formation in the cecum and ascending colon. Laboratory findings: high levels of calprotectin. Adalimumab therapy was being considered, therefore, comprehensive infectious screening was undertaken to exclude alternative etiologies of colitis. Histopathological evaluation of recent biopsies confirmed colonic tuberculosis overlapping moderate Crohn's disease, prompting a multidisciplinary decision to suspend immunosuppressive therapy and commence antituberculous treatment. After completing antituberculous therapy, the patient presented substantial clinical, biochemical, radiological, and endoscopic improvement, allowing for cautious reintroduction of Crohn's disease management under ongoing multidisciplinary supervision.

Conclusions: Given the therapeutic implications, particularly the risks associated with immunosuppression in unrecognized tuberculosis, clinicians must maintain a high index of suspicion in endemic areas or when facing atypical disease progression.

Keywords: transmural, granulomas, immunosuppression

BURNOUT - AN AGGRAVATING FACTOR FOR CARDIOVASCULAR RISK IN PATIENTS WITH TYPE 1 DIABETES MELLITUS

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Background: Type 1 Diabetes Mellitus (T1DM) is an autoimmune disease characterized by the immune-mediated destruction of pancreatic β-cells, leading to insulin deficiency. To achieve optimal glycemic control, patients with T1DM require lifelong exogenous insulin replacement therapy, regular glycemic monitoring and lifestyle optimization.

Objective: Patients with diabetes often complain of frustration, anxiety, and depression, with a negative impact on blood glucose levels, which leads to non-adherence to therapy and increases the cardiovascular risk.

Material and methods: We hereby report a case of a 37-year-old male patient diagnosed with T1DM at the age of 15 years, with multiple micro- and macrovascular complications, including advanced-stage diabetic nephropathy. In February 2025, the patient was brought into the emergency room in a coma after being found collapsed on the floor. The laboratory investigations revealed a blood glucose value of 1333 mg/dL, severe metabolic acidosis, total cholesterol 250 mg/dL, LDL cholesterol 142 mg/dL, HDL cholesterol 36.8 mg/dL, and triglycerides 404 mg/dL. During hospitalization to the Diabetology Department, the patient presented high blood pressure values. The cardiology evaluation revealed cord triatriatum on cardiac ultrasound.

Results: After this event, the patient presented to the emergency department with 2 similar episodes in less than 1 month. According to the patient's relatives, the patient had recently refused to take his medication and follow a diet, claiming that he had enough of everything. According to the diabetes guidelines, the patient has a very high cardiovascular risk - the long development of the disease together with arterial hypertension and renal dysfunction. In these conditions, the non-adherence of the patient to the therapy increases the risk of cardiovascular events.

Conclusions: The management of T1DM is difficult and can lead to complications that may shorten life expectancy.

Keywords: Type 1 Diabetes Mellitus, Diabetes Burnout, Cardiovascular Risk

PSYCHOLOGICAL WELL-BEING ACROSS MATERNAL STAGES

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Background: Motherhood represents a psychologically vulnerable and intense period for many women. Physical changes, a new maternal role and social expectations significantly influence how women perceive their body image and develop their self-esteem.

Objective: This study analysed how body image and self-esteem affect psychological well-being during motherhood by comparing women in the second trimester of pregnancy with those in the postnatal period, while also considering demographic factors.

Material and methods: A total of 211 patients, either in their second trimester or in the postnatal period, were recruited from the Obstetrics and Gynecology Department. Women with psychiatric conditions, severe chronic illnesses or major obstetric complications were excluded. A cross-sectional observational study was conducted. Participants completed the Body Appreciation Scale-2, the Rosenberg Self-Esteem Scale, the Ryff Psychological Well-Being Scale as well as a demographic questionnaire.

Results: Statistical analysis revealed that women in the second trimester reported higher levels of self-esteem (U=4489.5; p=0.008), psychological well-being (U=4383.5; p=0.009), and body image perception (U=4627.5; p=0.039) compared to women in the postpartum period. Both self-esteem (F(15,195)=5.57; p=0.003) and body image perception (F(15,195)=5.423; p<0.001) were significantly influenced by partner relationship, family support, pregnancy planning, and abortion consideration. Psychological well-being (F(15,195)=4.889; p<0.001) was affected by partner relationship, family support, pregnancy planning, abortion consideration, education, and marital status.

Conclusions: The findings highlight the postpartum period as especially vulnerable for women's mental health, frequently marked by reduced self-esteem, dissatisfaction with body image and lower overall well-being.

Keywords: Motherhood, Body Image, Psychological Well-Being, Self Esteem

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HIDDEN VULNERABILITIES : RECURRENT PNEUMOCOCCAL MENINGOENCEPHALITIS IN HYPOGAMMAGLOBULINEMIA

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Background: Meningitis is an inflammation of the meninges caused by bacterial, viral or fungal infections, typically with a rapid progression and potentially lethal outcome. Most cases are singular, but recurrence may occur in the presence of anatomical or immunological abnormalities such as hypogammaglobulinemia—a condition characterized by low levels of immunoglobulins, which compromises the humoral immune response and increases susceptibility to infections.

Objective: This case is meant to show the importance of identifying immunological deficits in cases of recurrent pneumococcal meningoencephalitis in adolescents.

Material and methods: We report the case of an 18-year-old male, unvaccinated against pneumococcus, with a previous episode of pneumococcal meningoencephalitis (2022) and chronic pansinusitis. He was admitted with acute onset headache, projectile vomiting, and altered consciousness (GCS 6–7 points). Neurological examination revealed right hemiplegia, positive Babinski and Kernig signs, and non-reactive pupils.

Blood cultures and cerebrospinal fluid (CSF), multiplex PCR confirmed Streptococcus pneumoniae. Brain imaging showed frontoparietal edema and pansinus collections. Laboratory tests indicated leukocytosis, with neutrophilia, a marked inflammatory syndrome (Fibrinogen: 587 mg/dL, CRP: 23.79 mg/dL), and significantly decreased IgG, IgM, and IgA levels. CSF showed marked pleocytosis (3520 leukocytes/3µL) and low glucose. Treatment included Ceftriaxone, Vancomycin, Metronidazole, corticosteroid anti-inflammatory therapy with Dexamethasone, cerebral depletive treatment, and symptomatic management.

Results: The patient's condition improved gradually but, residual right brachial monoparesis and mild behavioral changes persisted. A follow-up lumbar puncture showed normalization of CSF parameters. He was discharged after 21 days, both clinically, through decreased neurological symptoms and biologically, with remission of the inflammatory syndrome and cerebral edema.

Conclusions: Recurrent pneumococcal meningoencephalitis should raise suspicion of an underlying immunodeficiency, such as hypogammaglobulinemia, especially in children and adolescents. Thorough investigation of immune function, early treatment, and active pneumococcal immunization are essential for preventing recurrences.

Keywords: meningitis, Streptococcus pneumoniae, hypogammaglobulinemia, vaccination.

PRECISION MANAGEMENT IN DILATED CARDIOMYOPATHY WITH CONGENITAL NEUROLOGICAL SEQUELAE – A CASE REPORT

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Background: Heart failure (HF) management in patients with congenital or neurological commodities presents significant therapeutic challenges due to limited drug tolerance and a high risk of clinical decompensation. In such complex cases, individualized treatment becomes essential to ensure both safety and efficacy.

Objective: To illustrate the clinical outcomes of a personalized pharmacological approach in a patient with idiopathic dilated cardiomyopathy (DCM) and sequelae of infantile encephalopathy.

Material and methods: We present the case of a 29-year-old male patient with NYHA II HF, reduced left ventricular ejection fraction (initially 31%), persistent sinus tachycardia, moderate mitral regurgitation, and secondary pulmonary hypertension. The patient had a history of infantile encephalopathy with associated cognitive and motor delays, kyphoscoliosis, dysmorphic features, and intolerance to aspirin and SGLT2 inhibitors.

A personalized therapy regimen was implemented, consisting of sacubitril/valsartan, bisoprolol, ivabradine, loop and potassium-sparing diuretics, allopurinol, magnesium orotate, and cholecalciferol. The patient was monitored clinically, echocardiographically, and biochemically from 2021 to 2024.

Results: The patient demonstrated progressive improvement in cardiac function, with LVEF increasing to 49% and a reduction in both end-diastolic and end-systolic volumes. Mitral regurgitation improved from moderate to mild, NT-proBNP remained low (132 pg/mL), and the E/E' ratio decreased, indicating enhanced diastolic performance. No episodes of cardiovascular decompensation or neurological deterioration were observed. Functional status remained stable throughout the follow-up period, with no hospital re-admissions.

Conclusions: This case underscores the importance of individualized treatment strategies in patients with HF and congenital commodities. Tailored pharmacological therapy and close monitoring enabled significant cardiac recovery and neurological stability, highlighting the value of precision medicine in managing complex cardiovascular cases.

Keywords: heart failure, dilated cardiomyopathy, congenital commodities, personalized treatment.

STEMI OR STROKE: WHO GETS THE FIRST SHOT? – A CASE REPORT OF A RARE CONCURRENCE

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Background: Concurrent ST-elevation myocardial infarction (STEMI) and ischaemic stroke are seldom reported in literature, studies suggesting an incidence lower than 1%. Time is of the essence when it comes to managing these medical emergencies, due to the limited time frame available for tissue reperfusion from the onset of symptoms (STEMI - 2h; ischaemic stroke - <4.5h for trombolysis and <6h for thrombectomy).

Objective: This case highlights a medical crisis involving a seemingly classic clinical presentation of stroke, which concluded with a surprising discovery of STEMI, during a routine electrocardiogram (ECG).

Material and methods: This is the case of a 67-year-old female with a history of latero-cervical malignancy, hypertension and chronic kidney disease, brought to the ER with stroke symptoms starting 4 hours prior. Objective examination revealed a Glasgow Coma Score of 12 points, motor aphasia, right-sided hemiparesis and lateral homonymous hemianopsia, with no other significant findings. As part of the general management, the ECG revealed ST elevation in the inferior leads, with ST-depression in the anterior precordial leads (V2-V3). A presumptive diagnosis of Left Internal Carotid stroke and postero-inferior STEMI was set. Ascending aortic dissection was raised as a differential, infirmed by CT-Angiography.

Results: Cerebral angiography revealed the occlusion of the Left common and internal carotid artery. Furthermore, myocardial cytolysis enzymes were elevated, leading to a diagnosis of Concurrent STEMI and Stroke. Being in the 6-hour-window, the decision to prioritise the coronary angioplasty was made, followed by thrombectomy. The patient's condition deteriorated during thrombectomy, requiring intubation and transfer to the ICU. Although neurological lesions showed no imaging progression, troponin levels continued to rise for a week post-procedure, and the patient ultimately deceased.

Conclusions: This case portrays the importance of a strategic multidisciplinary approach that requires the sound collaboration of the emergency physician, cardiologist, and neurologist in order to reach a favourable outcome in this rare association.

Keywords: STEMI, stroke, thrombectomy, aortic dissection

FAVORABLE EVOLUTION OF AN EXTREMELY PREMATURE INFANT WITH SEVERE HEMORRHAGIC AND NEUROLOGICAL COMPLICATIONS

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Background: Extreme prematurity refers to the birth of a child before 27 weeks of gestation, with very low birth weight, involving severe risks and complications. Respiratory distress syndrome of the newborn (RDS), intraventricular hemorrhage, infections, neurological, cardiovascular, metabolic and ophthalmological disorders are frequently associated.

Objective: To highlight serious complications in the case of extreme prematurity and manage them.

Material and methods: We present the case of a 10-month-old infant, born prematurely at 25 weeks, weighing 700g, APGAR score 3/1 min, 5/5 min and 7/10 min, who developed respiratory distress syndrome due to surfactant deficiency, with prolonged unfavorable evolution, orotracheal intubation with multiple subsequent complications: pulmonary hemorrhage, intraventricular hemorrhage (IVH grade III-right / IV-left), significant posthemorrhagic hydrocephalus with symptomatic convulsive syndrome, for which a subcutaneous reservoir was installed initially, at 2.5 months old, and subsequently, when the weight allowed, a ventriculoperitoneal shunt was placed, with improvement of cerebral status. The convulsions were controlled with anticonvulsant treatment. Along the way, he developed hydroelectrolytic disorders, carbohydrate metabolism disorders, episodes of severe desaturations and bradycardia, generalized peripheral edema, Klebsiella infection and other nosocomial infections, benefiting from varied and multiple antibiotic support, iso-group and iso-rh transfusions. He was discharged from the maternity at 4.5 months old and receives enteral and parenteral support, periodic neurological, ophthalmological and cardiological evaluations.

Results: He underwent outpatient kinetotherapy, cardiological monitoring (patent ductus arteriosus, left ventricular hypertrophy), ophthalmological monitoring (retinopathy of prematurity with favorable evolution). Dynamic transfontanellar ultrasounds showed IVH resorption, ventricular asymmetry with dilated left lateral ventricle, right parietal periventricular porencephalic cyst. He is currently under anticonvulsant, neuroprotective and neurotrophic treatment, without convulsive seizures, attending kinetotherapy sessions, with slow but favorable evolution. The neurological picture reveals a spastic-flaccid tetraparesis, with motor deficit primarily on the left hemibody and a level of motor and mental development corresponding to a 4-month-old (corrected age currently being 5 months). Left inguinal hernia and left cryptorchidism were surgically corrected at 9 months.

Conclusions: Despite the complexity of the case, the multidisciplinary, rapid and personalized approach to each complication associated with prematurity leads to an improvement in the prognosis and quality of the patient's life.

Keywords: extreme prematurity, intraventricular hemorrhage, seizures, hydrocephalus

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ORTHOSTATIC HYPOTENSION - AN UNDERRATED COMPLICATION OF DIABETES MELLITUS

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Background: One of the most serious life-threatening chronic complications of Type 2 Diabetes Mellitus (T2DM) and also a major cause of morbidity and mortality in diabetic patients is diabetic cardiac autonomic neuropathy. Damage to the autonomic nerve fibers of the heart and blood vessels leads to diabetic cardiac autonomic neuropathy, which impairs rhythmic control of heart rate and vascular dynamics.

Objective: Orthostatic hypotension, as a major clinical part of the spectrum of diabetic autonomic dysfunction, can be difficult to manage in elderly patients with multiple comorbidities.

Material and methods: We hereby report a case of an 81-year-old Caucasian male patient, with a history of acute myocardial infarction and multiple strokes, diagnosed with T2DM in 2016, under insulin treatment in a basal-bolus regimen and therapy with empagliflozin and tamsulosin. The patient was admitted to the Diabetology Department for unbalanced blood glucose values, dizziness, and multiple episodes of falls from the same level. The Schellong test was performed during hospitalization, with a positive result, diagnosing orthostatic hypotension.

Results: Following the patient's history of orthostatic hypotension and dizziness, treatment with empagliflozin and tamsulosin was discontinued because of its effects, which exacerbated the orthostatic hypotension, and therapy with fludrocortisone was initiated. Subsequently, the reinitiation of empagliflozin was attempted, without success, as the patient suffered from dizziness.

Conclusions: Orthostatic hypotension is the most troublesome symptom that patients with diabetic neuropathy often complain about. Increased awareness and effective monitoring of diabetic autonomic neuropathy can help reduce the associated morbidity.

Keywords: iSGLT2, orthostatic hypotension, Type 2 Diabetes Mellitus

CELIAC DISEASE IN CHILDREN: FROM SYMPTOMS TO TREATMENT

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Background: Celiac disease is a systemic immune-mediated malabsorption disorder affecting approximately 1% of the population. Dietary gluten is the triggering factor for the clinical onset of celiac disease in genetically predisposed individuals.

Objective: This study aims to evaluate the demographic, anthropometric, clinical and biological characteristics of the children with gluten-sensitive enteropathy.

Material and methods: We performed a descriptive retrospective analysis, including 51 patients with celiac disease admitted to the Paediatric Clinic I of Târgu-Mureș County Emergency Clinical Hospital from January 2020 to December 2024.

Results: Among all patients, 39% were boys and 61% girls (mean age of 7.23±4.79). Regarding symptoms, 20% of patients had gastrointestinal symptoms, 41% had extraintestinal symptoms and 39% had mixed symptoms. Hypovitaminosis D was found in 52.94% of cases. Elevated levels of anti-transglutaminase 2 antibodies (anti-TG2) ≥10 ULN were found in 78%, and 84% were positive for anti-endomisium antibodies at diagnosis. After at least 6 months on a gluten-free diet, anti-TG2 levels were less than 10 U in 47% of patients and 10-50 U in 45% of patients. Human Leukocyte Antigen (HLA) typing was performed in 24% of patients and duodenal biopsy for diagnosis in 8% of cases. A significant negative correlations were found between the level of anti-TG2 and haemoglobin ($p=0.0003$; $r=-0.48$), hematocrit ($p=0.0001$; $r=-0.42$), mean corpuscular volume ($p=0.002$; $r=-0.4$), mean corpuscular haemoglobin ($p=0.002$; $r=-0.4$), mean corpuscular haemoglobin concentration ($p=0.002$; $r=-0.4$). A significant positive correlations were found between lactate dehydrogenase levels and glutamic-oxaloacetic transaminase (GOT) ($p<0.0001$; $r=0.66$), glutamate-pyruvate transaminase (GPT) ($p=0.04$; $r=0.28$) and also between anti-TG2 levels and GOT ($p=0.008$; $r=0.36$), GPT ($p=0.03$; $r=0.3$).

Conclusions: Celiac disease is more frequent in girls and clinical features are heterogeneous. It is a proinflammatory disease affecting several organs. In most cases, a gluten-free diet helps to improve the serological profile of these patients.

Keywords: celiac disease, anti-transglutaminase 2 antibodies, anti-endomysium antibodies, HLA typing, duodenal biopsy

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PREDICTORS OF IN HOSPITAL ATRIAL FIBRILLATION EPISODES IN PATIENTS WITH ST EVELATION MYOCARDIAL INFARCTION

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Background: Atrial fibrillation (AF) is a common complication during hospitalization in patients with ST-elevation myocardial infarction (STEMI). Identifying predictors of in-hospital AF can improve management and patient outcomes.

Objective: This study aims to identify predictors of in-hospital AF episodes in patients with STEMI.

Material and methods: This prospective study involved 139 consecutive STEMI patients who underwent percutaneous coronary intervention (PCI) at Târgu Mureș Emergency Clinical County Hospital. Continuous ECG monitoring in two limb leads was performed during the first 48 hours post-PCI to detect AF episodes. Patients were divided into two groups: 47 with AF (group 1) and 92 without AF (group 2). All patients underwent comprehensive clinical and paraclinical evaluations, including assessment of factors related to the myocardial infarction and potential AF triggers.

Results: The mean age was 64 ± 7 years, and the male-to-female ratio was 1.60, with no significant difference between groups ($p>0.05$). Patients with AF presented later after symptom onset (500 ± 115 minutes) compared to those without AF (180 ± 80 minutes; $p<0.0001$). The culprit lesion was more often in the right coronary artery (59.58%) in the AF group versus 14.89% in others ($p<0.0001$). No significant differences were observed regarding PCI duration, number of stents, renal function, hematological, or lipid profiles. Higher FT4 levels were noted in the AF group (2.17 ± 0.34 ng/dL) compared to controls (1.10 ± 0.12 ng/dL; $p<0.0001$). TSH levels showed no significant difference ($p=0.18$).

Conclusions: Delayed hospital presentation, elevated FT4 levels, and right coronary artery occlusion are significant predictors of in-hospital AF among STEMI patients. Early clinical assessment and targeted management of these factors may reduce AF incidence and improve patient outcomes.

Keywords: atrial fibrillation, predictors, STEMI.

NONSTEROIDAL ANTI-INFLAMMATORY DRUGS AND THE GASTROINTESTINAL EFFECTS: INFORMATION SOURCES AND ADMINISTRATION METHODS

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Background: Nonsteroidal anti-inflammatory drugs(NSAIDs) are used by all ages to reduce inflamation and pain relief with or without prescription.

Objective: The study followed the general population's receptivity to information about side effects during NSAIDs treatment and how the administration method is chosen in order to avoid them.

Material and methods: The study involved a group of 132 people with the averall age of 28 years, with female to male ratio of 3:1. The data was collected through a form shared online meant to find the information sources, administration methods and the level of knowledge about the gastrointestinal effects caused by NSAIDs.

Results: During analysis we observed that out of 132 participants, 100 read the package leaflet before administration of NSAIDs, while the rest of 32 consider that informing from this source isn't helpful. On the other side, 70% were informed by doctor about the gastrointestinal side effects, this could be an influence in choosing the preferred administration method for NSAIDs. In this case we observed that almost 60% of participants take into consideration the doctor's advice when choosing the administration method while 40% of them prefer personal preferences when taking NSAIDs. In the case of those not advised by a doctor, from 37 of the people that are uniformed, 27 choose to read the package leaflet. After the analysis was made we saw that there is no significant correlation($p=0.25$) between these two information sources. A global analysis showed that the patients associate the injectable form with a lower risk of gastrointestinal effects, although when we look at the control group that was informed by a doctor, 28% of them chose the intrarectal form.

Conclusions: The receptivity of population is high regarding the side effects of NSAIDs and the source of information can be a factor in choosing the administration method.

Keywords: NSAIDs, information, package leaflet, gastrointestinal effects

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EPIDEMIOLOGICAL AND CLINICAL STUDY OF ACUTE URTICARIA

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Background: Acute urticaria is a heterogeneous disease with a vast etiology, including allergens, autoimmunity, infections and environment. However, we lack a full understanding of the pathogenesis, and many cases are classified as idiopathic. Although laboratory studies are frequently used, they're not well correlated with clinical evolution.

Objective: The objective of this study is to characterize the demographic and clinical features and laboratory tests of patients diagnosed with acute urticaria and to investigate the possible correlations between them and the severity of clinical signs and symptoms of the disease, for a risk-factor assessment regarding more severe cases of disease and worse symptoms, and greater lesion extension.

Material and methods: We performed an observational, descriptive study, in which the discharge records of all patients diagnosed with acute urticaria in Dermatology Clinic, Târgu Mureș, during January 2021 and January 2022 were retrospectively analyzed. A total of 113 patients were included. Data regarding demographic, clinical signs, location of the lesions, etiological factors, blood tests, ASLO titers, H.pylori, stool, nasal and pharyngeal swabs, urine analysis and culture were recorded. Data analysis was conducted using the Python (v3. 12) soft and performing Mann-Whitney and chi-square test and the appropriate p value considered was < 0.05.

Results: Women represented 72.5% of the cohort and patients had a mean age of 53.7 years. In 68% of cases etiology remained unknown; among known triggers, drugs (16%) and infections (9.75%) were most often found. The most frequent occurring symptoms were angioedema (20.3%) and pruritus (92.9%). The most significant blood-test results were elevated neutrophil (53%) and lower lymphocyte (42%) levels. Between laboratory changes and disease severity, no statistically significant correlations were found.

Conclusions: Most patients were middle-aged women. Common triggers included drugs and infections. Pruritus, angioedema, and widespread lesions predominated. Laboratory changes lacked prognostic value. Further studies should identify other predictors of disease severity.

Keywords: Acute Urticaria, Blood-tests, Disease severity.

HEPATIC INVOLVEMENT IN RESPIRATORY INTERCURRENT INFECTIONS IN CHILDREN: HEPATOCYTOLYSIS SYNDROME

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Background: Hepatocytolysis syndrome is a form of liver involvement that can be triggered by acute respiratory infections. It may reflect a systemic inflammatory response and can be associated with the need for ventilatory support or systemic complications.

Objective: To assess the frequency and severity of hepatic involvement in the context of acute respiratory infections in pediatric patients and to identify potential correlations between hepatic parameters and disease severity.

Material and methods: We conducted a retrospective study on a cohort of 99 pediatric patients diagnosed with acute respiratory infections. Demographic data, blood tests and the need for oxygen therapy were analyzed.

Results: The median age of patients with hepatic involvement was significantly lower compared to those without ($p = 0.03$). Transaminase levels were not correlated with the presence of systemic inflammatory syndrome; only 25% of patients with elevated AST had CRP >5 mg/L, compared to over 50% of those with normal AST levels ($p = 0.013$). Logistic regression suggested that elevated Aspartate Aminotransferase was associated with a decreased likelihood of elevated C-Reactive Protein (OR = 0.30; 95% CI: 0.12–0.80). Moreover, elevated Aspartate Aminotransferase was significantly associated with the need for oxygen therapy ($p = 0.032$).

Conclusions: Younger patients are more susceptible to developing hepatocytolysis syndrome in association with respiratory infections. Elevated Aspartate Aminotransferase does not reflect systemic inflammation but is associated with the need for oxygen therapy, thus indicating a link with disease severity. Hepatic parameters may therefore offer additional insight into the severity of respiratory infections.

Keywords: hepatocytolysis, serum transaminases, respiratory infections, children, inflammation, oxygen therapy

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EVALUATION OF THE ROLE OF CLINICAL, BIOLOGICAL, AND ENDOSCOPIC FACTORS IN ATROPHIC GASTRITIS

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Background: Atrophic gastritis (AG) is a chronic inflammatory disorder of the gastric mucosa. Early identification and precise assessment of AG are crucial for appropriate management.

Objective: This study aims to examine the influence of dyspeptic symptoms, biological markers, and endoscopic features on the prognosis of AG.

Material and methods: In our single-center retrospective study, we included 402 patients (94 patients with AG and 308 patients without premalignant gastric lesions) that were admitted to the Internal Medicine Clinical nr. II (Emergency Clinical County Hospital, Targu Mures) and who underwent esophago-gastroduodenoscopy and usual blood tests between 2023-2024. Evidence of Helicobacter pylori (H. pylori) infection or autoimmune involvement was obtained from biopsy reports.

Results: The median age of the population was 67 years (IQR: 54–75 years), with a predominance of female participants (56.21%). Patients diagnosed with AG were significantly older compared with individuals without AG ($p<0.001$). No significant association was identified between gender and the presence of AG($\chi^2(1)=0.09$, $p=0.760$). Age was a strong predictor of AG (AUC=0.672, $p<0.001$), with each additional year increasing the risk (OR:1.05; 95% CI:1.03–1.07). The presence of dyspeptic symptoms did not significantly predict AG. However, patients who consumed aspirin (OR:2.05; 95% CI:1.18–3.57; p=0.011), clopidogrel (OR:3.48; 95% CI:1.1–11.07; p=0.034), nonsteroidal anti-inflammatory drugs (OR:2.07; 95% CI:1.21–3.55; p=0.008) or angiotensin-converting-enzyme inhibitors (OR:1.86; 95% CI:1.15–2.98; p=0.11) had higher odds of developing AG. Additionally, concurrent H. pylori infection further increased the likelihood of AG (OR:1.84; 95% CI:1.09–3.11; p=0.023).

Conclusions: We demonstrated that advancing age, H. pylori infection, and certain chronic medications are significantly associated with AG. In contrast, neither gender nor dyspeptic symptoms reliably predicted AG. These results underscore the importance of incorporating age, chronic medication use, and H. pylori status into risk stratification for earlier detection and management.

Keywords: atrophic gastritis, medication, endoscopy, Helicobacter-pylori

CERVICAL CANCER – A STUDY ON RISK FACTORS

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Background: Cervical cancer is one of the most common gynecological malignancies, associated with several risk factors, the most significant being human papillomavirus infection, early sexual activity, multiple sexual partners, smoking, and lack of regular gynecological check-ups.

Objective: The aim of this study is to identify the presence of risk factors involved in the development of cervical cancer by evaluating personal characteristics and habits within an adult population.

Material and methods: A cross-sectional study was conducted using an online questionnaire addressed to individuals over the age of 18. The questionnaire was voluntarily completed by 193 respondents with no affiliation to a specific institution. Collected data included variables such as: age, gender, area of residence, education level, smoking status, age of sexual debut, number of sexual partners, contraceptive methods, obstetric history, human papillomavirus vaccination, human papillomavirus genotyping, gynecological check-ups, sources of medical information, and personal/family history of cervical cancer.

Results: A total of 53.9% of respondents reported having multiple sexual partners, while only 14.5% had received vaccine against human papillomavirus. Over 70% had not undergone human papillomavirus genotyping, yet more than 50% reported attending regular gynecological check-ups. A significant majority (73.6%) were non-smokers. Most reported cervical cancer cases were found in the age groups 35–44 and 55–64.

Conclusions: Despite a relatively high rate of regular gynecological check-ups among respondents, preventive measures against human papillomavirus, such as vaccination and genotyping, remain insufficiently utilized. The low uptake of the human papillomavirus vaccine and lack of genotyping, combined with a high prevalence of multiple sexual partners, may contribute to the continued incidence of cervical cancer, particularly among women aged 35–44 and 55–64.

Keywords: HPV, smoking, screening, multiple partners, vaccination.

HISTOPATHOLOGICAL ANALYSIS OF MEDICOLEGAL CASES IN COVID-19 FATALITIES: AN AUTOPSY STUDY.

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Background: The SARS-CoV-2 virus has significantly challenged global healthcare systems, primarily due to its severe pulmonary complications and widespread multi-organ damage observed in autopsy findings.

Objective: This study aims to investigate the histopathological features of individuals who died with SARS-CoV-2 infection, correlating clinical and demographic information with post-mortem microscopic findings.

Material and methods: A retrospective analysis was performed on 42 autopsy cases between April 28, 2020, and January 23, 2021, at the Institute of Legal Medicine in Târgu Mureș. Data from medical files and autopsy reports were included. Parameters including age, sex, location and cause of death, comorbidities, and histological changes in the lungs, heart, liver, and kidneys were analyzed.

Results: Males represented 64.29% of cases, with a mean age of 62.12 years. Most deaths occurred in patients over 50, primarily in hospital settings. COVID-19 was the direct cause of death in nearly two-thirds of the cases. The most common histopathological findings included acute respiratory distress syndrome (69.05%), intravascular thrombosis (66.67%), myocardial sclerosis (92.86%), and ventricular hypertrophy (59.52%).

Conclusions: This study underscores the predominance of pulmonary and cardiac pathology in COVID-19-related deaths, particularly among older adults. These findings reinforce the important role of autopsy in understanding the systemic effects of SARS-CoV-2.

Keywords: SARS-CoV-2 infection, COVID-19 disease, histopathology, autopsy.

TEACHING HYGIENE IN MEDICAL EDUCATION: A GLOBAL QUANTITATIVE ANALYSIS

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Background: Hygiene class plays a crucial role in the medical education of students, being fundamental to health promotion and disease prevention. Its integration into curricula varies significantly worldwide, and the lack of global analyses in this matter prompted this research. This study provides an overview of how Hygiene is taught in medical education.

Objective: The aim of the study was to assess the inclusion of Hygiene in medical curricula and to identify differences between universities in terms of structure, naming, and timing of instruction.

Material and methods: Material and methods: An observational, cross-sectional study was conducted on a representative sample of 300 medical schools, randomly selected from the 1,550 listed in the World Directory of Medical Schools. The selection covered all continents, with a 95% confidence level and a 5% margin of error. Data were collected from course descriptions, admission brochures, and student schedules, depending on availability.

Results: Results: Of the 300 medical schools analyzed, 24.67% included the subject of Hygiene or a similar subject. In 60.81% of cases, the term “Hygiene” was used, 29.73% of schools used terms related to “Environmental Health,” and 6.76% used terms from the “Ecology” spectrum to define the subject. The majority (85%) of schools taught Hygiene as a compulsory subject, most commonly in the 2nd or 3rd year (51.35%). The number of credits varied between 2 and 3, and the hours allocated typically ranged between 30 and 60 per semester, with extremes from 28 hours and up to 180 hours.

Conclusions: “Hygiene” is the most commonly taught subject under a standardized name globally, being compulsory in most medical schools, with a uniform distribution of ECTS credits. Teaching primarily takes place in the 2nd or 3rd year, with significant differences in the number of hours allocated depending on the country.

Keywords: Hygiene, Curriculum, Medical schools, Environmental Health, Ecology.

DIAGNOSTIC CHALLENGES FROM INCREASED MUSCLE ENZYME VALUES

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Background: Infectious myositis represents the increase in muscle enzymes, being an important biological indicator, but nonspecific, of muscle tissue damage. Prompt diagnosis involves the correlation of paraclinical, clinical and imaging data, in the context of a rigorous protocol to exclude the etiologies of muscle damage.

Objective: Illustration of a pediatric case with constant increases in muscle enzymes, complemented by subtle neurological manifestations, in order to highlight the difficulties of a differential diagnosis in the case of infectious myositis.

Material and methods: A 10-year-old patient presents with myalgias in the lower limbs and gait disorders. The medical history highlights a lingering infectious episode two months ago and constantly increased transaminase values. Clinically, she presents a gracile appearance with slight pseudohypertrophy of the gluteal muscles, generalized hypotonia, without strength deficit, without sensitivity disorders, osteotendinous reflexes (ROT) normally triggered. Muscle enzymes have significantly increased values (transaminases GOT-150 U/l; GPT-120 U/l; lactate dehydrogenase LDH-492 U/l, cretinphosphokinase CPK- 5677 U/l) with inflammatory, infectious, viral, hepatic/Epstein-Barr factors - negative. Suspicion of a myopathy is raised and an electromyographic (EMG) examination is requested. Particularity of the case: two months after an infectious picture with minimal symptoms but with significantly increased values of muscle enzymes, the question of a chronic muscle condition arises. Investigations are decided in this regard, but the final diagnosis is of infectious myositis tenante.

Results: After one month of neurotrophic treatment (vitamins of type B, Carnil, Piracetam) the analyses are remitted and the values of muscle enzymes are decreasing (GOT-88 U/l; GPT-69 U/l; LDH-357U/l; CPK-3165U/l). While waiting for the EMG result, corticotherapy is associated and after another month she returns with a clinical, neurological picture, muscle enzymes with normal values, EMG without changes.

Conclusions: A persistent muscle hyperenzymemia requires a meticulous clinical evaluation. Early diagnosis and the establishment of adequate treatment can lead to a good clinical trajectory and a total recovery of functionality in pediatric inflammatory muscle pathology.

Keywords: muscle enzymes, corticotherapy, myositis

MINIMALLY INVASIVE APPROACH TO OSTIUM PRIMUM ATRIAL SEPTAL DEFECT WITH MITRAL VALVE CLEFT AND SUBVALVULAR MASS: A CASE REPORT

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Background: Ostium primum atrial septal defect (ASD) is a rare congenital malformation, often associated with cleft mitral valve. Diagnosis in adulthood, especially in association with an intracardiac mass, is rare and surgically challenging. Minimally invasive approaches provide effective alternatives to conventional sternotomy, offering reduced morbidity and faster recovery.

Objective: To demonstrate the feasibility and clinical advantages of minimally invasive surgical correction of a complex congenital cardiac defect in an adult patient.

Material and methods: A 41-year-old woman was referred for further cardiologic assessment after a systolic murmur was detected during a routine cardiovascular examination. Subsequent transthoracic and transesophageal echocardiography revealed an ostium primum atrial septal defect, a cleft in the anterior mitral valve leaflet, and a mobile subvalvular mass measuring approximately 2×2 cm. Given the anatomical complexity and associated lesions, the surgical team opted for a minimally invasive approach. The intervention was performed via right lateral mini-thoracotomy. Cardiopulmonary bypass was established, followed by cardioplegic arrest. The intracardiac mass was then excised, the mitral cleft was surgically closed, and the septal defect was repaired using a heterologous pericardial patch.

Results: The surgical procedure was completed without any intraoperative or postoperative complications. The patient had a successful recover, with early extubation within hours and hospital discharge on postoperative day three. The minimally invasive approach significantly reduced surgical trauma and postoperative discomfort, allowing for a faster and smoother recovery.

Conclusions: Minimally invasive cardiac surgery is a safe and effective option for the treatment of complex congenital heart defects in adults. This case highlights its feasibility even in the presence of multiple coexisting anomalies, emphasizing the importance of individualized surgical planning and close multidisciplinary collaboration.

Keywords: Ostium Primum Atrial Septal Defect, Minimally Invasive Cardiac Surgery, Mitral Valve Cleft

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FROM SYMPTOM TO GENE: EPISODIC WEAKNESS AND MUSCLE RIGIDITY IN A PEDIATRIC CASE SUSPECTED OF HYPERKALEMIC PERIODIC PARALYSIS (HYPERPP)

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Background: Hyperkalemic Periodic Paralysis (HyperPP) is characterized by generalized muscle weakness episodes. Also, hyperkalemia is associated during the crisis. The symptoms of an attack can be due to oral intake of high-potassium foods, cold and stress. The disease typically manifests before the age of 20. This variant is also associated with cardiac pathologies (dilated cardiomyopathy).

Objective: The documentation of rare diseases constitute an important component in advancing diagnostic precision and fostering awareness among medical professionals.

Material and methods: A one-year-and-six-month-old infant presented to the pediatric neurology department with neurological developmental regression of unknown etiology. Clinical examination revealed muscular hypotonia and ligamentous hyperlaxity. The EMG results show no changes. However, the motor unit potentials were globally reduced in both duration and amplitude. These findings indicate a chronic myogenic pattern. A WES (Whole Exome Sequencing) was also performed. A variant in the SCN4A gene (SCN4A:c.3371C>A,RS924313348) has been identified. Although it is presently considered a Variant of Uncertain Significance (VUS), bioinformatic predictions suggest that it may impair protein function, and some tools even classify it as pathogenic. The patient was diagnosed with Hyperkalemic Periodic Paralysis (HyperPP).

Results: Such channelopathies may explain the patient's motor and developmental regression. Whole Exome Sequencing (WES) is currently considered the gold standard for diagnosing these pathologies. Paramyotonia (increased muscle stiffness exacerbated by cold and exercise) is present in approximately 45% of affected individuals.

Conclusions: Channelopathies are disorders of membrane ion channels that can cause pathology in the muscles, heart, or nervous system. Their diagnosis is difficult, raising differential diagnostic challenges with other conditions associated with muscle degeneration.

Keywords: Hyperkalemic Periodic Paralysis, SCN4A, muscular degeneration, Paramyotonia

THE 10P SPECTRUM: ONE DELETION, MULTIPLE SYNDROMES

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Background: Microdeletions on the short arm of chromosome 10, particularly within the 10p15.3-p13 region, are rare but clinically important due to the involvement of multiple critical genes such as GATA3, IL2RA, and ZMYND11. It is expected that deletions within this region will give rise to highly variable phenotypes, which may combine clinical features from 10p15 microdeletion syndrome, Barakat syndrome (HDR), and DiGeorge syndrome type 2.

Objective: This case presentation is directed toward highlighting multisystem manifestations of 10p15.3-p13 microdeletion and showing the importance of early genetic diagnosis.

Material and methods: A 9-year and 5-month-old female patient was admitted to a pediatric neuropsychiatry unit to investigate her pronounced severe global developmental delay, expressive language impairment, intellectual disability, paraparesis, epilepsy, and facial dysmorphisms suggestive of a syndromic condition. Other clinical features included sensorineural hearing loss, chronic central nervous system infection, and previous surgical correction of a congenital heart defect. Whole exome sequencing identified

a homozygous deletion at chr10:37458457-37478485, encompassing TUBB8, ZMYND11, WDR37, KLF6, AKR1C2, AKR1C4, IL2RA, GATA3, DHTKD1, OPTN, PHYH,and FRMD4A. This deletion is in line with a contiguous gene syndrome.

Results: Genetic deletion encompasses genes involved in overlapping syndromes and accounts for craniofacial dysmorphism, neurodevelopmental delay, paraparesis, immunodeficiency, hypoparathyroidism, and renal and cardiac abnormalities. The deletion of GATA3 supports a diagnosis of HDR syndrome, whereas immunological features similar to DiGeorge syndrome type 2 are followed by IL2RA loss. The microdeletion encompasses ZMYND11 and WDR37, correlating with the patient's intellectual and motor impairments, characteristic of 10p15 microdeletion syndrome. Clinically, the patient exhibits hypotonia, severe expressive speech delay, epilepsy, difficulties with social adaptation, facial dysmorphic features (epicanthus, low-set ears, hypertelorism), and bilateral sensorineural hearing loss.

Conclusions: Prompt genetic diagnosis of 10p15.3-p13 microdeletion allows tailored treatment, better management, and eventually improved long-term outcomes for affected patients.

Keywords: 10p15.3-p13 microdeletion, Genetic deletion, overlapping syndromes

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A CASE OF ACUTE EXACERBATION OF CHRONIC PANCREATITIS IN AN 85-YEAR-OLD PATIENT WITH MULTIPLE COMORBIDITIES

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Background: Chronic pancreatitis is a progressive inflammatory disease defined by irreversible destruction of exocrine and endocrine glands, which are replaced by fibrotic tissue. The pathology progresses to severe abdominal pain and malabsorption. Most patients experience an acute exacerbation, most often, associated with multiple comorbidities, presenting difficult diagnostic and therapeutic challenges.

Objective: The purpose of this paper is to highlight the multidisciplinary approach and management of a complex case of chronic pancreatitis associated with cardiovascular pathologies.

Material and methods: An 85-year-old patient, known with acute myocardial infarction, coronary stent placement and chronic heart failure NYHA II, presented to the emergency department accusing epigastric, prechordial, and left hypochondrial pain that radiated to the back, which began 3 weeks prior. araclinical investigations were conducted, such as abdominal ultrasound CT-scan and gastroscopy - to assess a diagnosis.

Results: Results showed elevated amylase and C reactive protein levels. Abdominal CT revealed a duodenal diverticulum located adjacent to the head of the pancreas, encapsulated fluid collections in the upper abdominal compartment and acute pancreatitis. Abdominal echography confirmed the pathological appearance of the pancreas. Gastroscopy revealed chronic gastritis. Moreover, Helicobacter Pylori infection, malnutrition, anaemia and cholelithiasis were associated with the diagnosis. The patient was treated with Algocalmin, Nospa, Diurex, alongside medications for cardiovascular pathologies. The evolution and outcome were favourable. Prior to being discharged, the patient was prescribed Pantoprazole and succrosomial iron, alongside with Helicobacter pylori eradication therapy.

Conclusions: Acute pancreatitis, even if may appear as a simple diagnosis, needs attention. In this case, the patient diagnosed with an episode of exacerbation of chronical pancreatitis, duodenal diverticulum and chronic gastritis, multiple cardiovascular pathologies - the fast and multidisciplinary clinical management of the symptoms and pathologies were key factors for the favourable outcome.

Keywords: Acute pancreatitis; Chronic gastritis; Duodenal diverticulum; Cholelithiasis

DULOXETINE – AN EFFECTIVE THERAPEUTIC OPTION IN CHRONIC MIXED PAIN SYNDROME: A CASE REPORT

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Background: Chronic mixed pain, that involves both of nociceptive and neuropathic mechanisms, stays as a meaningful therapeutic challenge, mostly when it is associated with psychiatric comorbidities. Patient outcomes are importantly improved by identifying effective treatment options addressing both pain along with affective symptoms.

Objective: A case showing the clinical efficacy for duloxetine in managing chronic mixed pain with depressive and anxiety symptoms.

Material and methods: We report on the case of a 51-year-old female who has a recurrent major depressive disorder with nonsystematic vertiginous syndrome and anxiety features along with chronic pain in cervical, thoracic, lumbar spine, and knees. Analgesics with antidepressants provided limited response in the patient's complex therapeutic history. Duloxetine was introduced at a dose of 60 mg each day. Duloxetine got close observation for weeks.

Results: The patient did report meaningful improvements in pain control and in sleep quality and emotional stability after the initiation of duloxetine. Polypharmacy was reduced, which helped patients. Overall, treatment adherence was therefore improved. No one noted important adverse effects of concern. Duloxetine's dual action upon pain and depression aligned with literature regarding the therapeutic benefits.

Conclusions: Duloxetine proved itself to be a valuable and therapeutic option for use in this chronic mixed pain case. The patient presented with psychiatric comorbidities also. Here, an integrated psychosomatic approach is stressed, and SNRIs' role in complex chronic pain syndromes is supported.

Keywords: Chronic pain, Major depressive disorder, Duloxetine

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TRAZODONE IN RECURRENT MAJOR DEPRESSION WITH COMORBID INSOMNIA: CLINICAL RESPONSE AND THERAPEUTIC CONSIDERATIONS

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Background: Major depressive disorder (MDD) frequently presents with associated symptoms like insomnia, anxiety, and psychomotor agitation, which complicate management and reduce quality of life. Trazodone is routinely employed for its antidepressant as well as sedative effects. It is an antagonist of serotonin and a reuptake inhibitor (SARI), especially in patients with comorbid sleep disturbances.

Objective: For assessment of trazodone's tolerability as well as the clinical response within a patient who has recurrent MDD with associated insomnia.

Material and methods: We present the case of a 57-year-old woman with a history of repetitive depressive episodes since 2014. A moderate depressive relapse was characterized by continuous low mood, anhedonia, psychomotor inhibition, fatigue, feelings of worthlessness, and mixed-type insomnia. Her comorbidities included stage II essential hypertension along with open-angle glaucoma.

As initial management, the patient received short-term support with anxiolytics and hypnotics, while the core antidepressant strategy was based on trazodone. Her clinical evolution was monitored closely over a three-month period through regular assessments conducted in accordance with DSM-IV-TR and ICD-10 diagnostic criteria.

Results: Trazodone improved clinical status greatly, since sleep quality improved, anxiety lessened, and depressive symptoms fully remitted. After a period of one month, the patient discontinued her Zolpidem use. Alprazolam was in use only during that initial phase period. No side effects were reported, and treatment adherence was outstanding.

Conclusions: This case confirmed the effectiveness and tolerability of trazodone in recurrent MDD with comorbid insomnia. Its dual effect made it particularly suitable for addressing both mood and sleep symptoms, supporting its use in similar clinical contexts where standard antidepressants fail to offer adequate sedative benefit.

Keywords: Trazodone, Comorbid Insomnia, Recurrent Depression, Psychopharmacology

DUAL MALIGNANCY IN A HIGH-RISK PATIENT: WHEN CHRONIC LYMPHOCYTIC LEUKEMIA MEETS GASTRIC CANCER

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Background: Gastric cancer remains a widespread and deadly disease, with patients suffering from hematologic disorders at increased risk due to prolonged immunosuppression.

Objective: This paper aims to highlight the importance of personalized oncological screening in high-risk populations and the exploration of potential shared molecular connections across various cancer types.

Material and methods: We present the case of a 55-year-old male, known to have chronic lymphocytic leukemia, who presents to the emergency department with melena, asthenia, and fatigue.

Results: The patient's hematologic condition began approximately 7 years ago, with the presence of the TP53 mutation confirmed by molecular testing. Upon presentation, the clinical presentation is primarily characterized by melena, in the absence of typical upper gastrointestinal symptoms. The complete blood count reveals a hemoglobin level of 8.5 g/dl, moderate leukocytosis with lymphocytosis, and a normal platelet count. Upper gastrointestinal endoscopy identified an infiltrative tumor in the gastric body. Narrow Band Imaging (NBI) revealed key diagnostic features, including disorganized vascular patterns, loss of glandular architecture, and a non-structured area. Clearly defined margins further raised suspicion of gastric adenocarcinoma. EUS shows a hypoechoic, irregular lesion with disrupted mucosal and submucosal layers, invading the muscularis propria, without serosal infiltration but with suspected regional lymph node involvement. CT examination excludes tumor extension into adjacent organs and the presence of distant metastases. Additionally, it confirms the presence of enlarged periportal lymph nodes, although without clear signs of malignancy. Histopathological evaluation confirms localized gastric adenocarcinoma. A multidisciplinary team proposes partial gastrectomy with lymphadenectomy, followed by adjuvant chemotherapy based on the FLOT protocol for optimal oncologic management. The patient's postoperative course was favorable, with continued treatment for anemia and ongoing oncological medication.

Conclusions: Although there are no standardized guidelines for gastric screening in CLL, the increased oncological risk highlights the role of genetic testing for detecting dual-value mutations in targeted management.

Keywords: FLOT, TP53, endoscopy, gastrectomy

LUMBAR PUNCTURE AS A KEY ELEMENT IN FEVER WITH NONSPECIFIC PRESENTATION IN CHILDREN

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Background: In infants, meningitis may present with non-specific clinical signs such as fever, vomiting, or drowsiness, which can delay diagnosis. In this context, lumbar puncture is an essential investigation for identifying meningitis, a potentially life-threatening condition. Early detection of meningococcal meningitis, in particular, allows for the prompt initiation of appropriate treatment and significantly improves prognosis.

Objective: The aim of this case report is to highlight the importance of performing a lumbar puncture for the diagnosis of meningococcal meningitis.

Material and methods: A 9-month-old infant presented with fever (38.5°C), postprandial vomiting, poor appetite, and drowsiness. Initial investigations suggested a possible urinary tract infection, which was later ruled out. In the absence of clinical improvement under empirical antibiotic therapy (Cefuroxime) and in the context of worsening inflammatory markers (CRP 292 mg/L), a lumbar puncture was performed. Cerebrospinal fluid analysis revealed changes suggestive of meningitis, and multiplex PCR testing confirmed the presence of Neisseria meningitidis. Treatment with Ceftriaxone and supportive care was initiated. Due to clinical deterioration (nuchal rigidity, opisthotonus, marked drowsiness), the patient was transferred to the pediatric intensive care unit. Under intensive treatment, the clinical course was favorable, allowing for subsequent transfer to an infectious diseases department to continue therapy.

Results: In the absence of evident neurological signs at onset, the diagnosis of meningitis was delayed. However, the lack of response to initial treatment and the deterioration of the general condition necessitated further investigations. Lumbar puncture proved to be the key investigation for establishing the diagnosis and guiding appropriate treatment.

Conclusions: Meningitis in infants can present with non-specific signs, requiring heightened clinical vigilance. Lumbar puncture should be considered early in the diagnostic process, especially in the context of an unfavorable clinical evolution. Early diagnosis of meningococcal meningitis is essential for initiating appropriate treatment and improving vital prognosis.

Keywords: lumbar puncture, fever, meningococcal meningitis

SIP AWAY STRESS: HOW TEA HELPS STUDENTS COPE WITH EXAM STRESS

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Background: Being under stress from the demands of medical school, students turn obliquely to traditional methods as an attempt to rebalance themselves.

Objective: The purpose of this paper is to document the views of UMFST students on the function of tea in preventive measures.

Material and methods: A sample of 77 respondents completed a survey used as a psychological investigation between September and December 2024.

Results: According to the gender stratification, 77.4% of the 77 respondents appear to be women. Tea is a part of a mindfulness routine since women are more prone to prefer diverse approaches to emotional control.

Regarding the question, “How much tea do you drink in a day?” The results show a preference toward low intake (23.4%), very low intake (11.7%), moderate to low consumption (39%), and no intake (15.6%). Students who drink a lot of tea have a tendency to overindulge (1.3%) . It has been emphasized that a modest amount of tea is enough to have the desired therapeutic effect, although tea does not lead to addiction.

“Why do you prefer to drink tea?” According to 40.3% of students, it helps them unwind, 33.9% think it has health benefits, 12.9% say it replaces coffee, 11.3% say it reduces session stress, and 1.6% say it helps them concentrate under pressure. Tea has an intricate connection with stress, stimulating serenity and relaxation.

51.6% of the students said they like to drink medical tea (chamomile), 27.4% revealed they prefer anti-stress tea, 11.3% noted they prefer matcha, and 8.1% added that they prefer to drink tea to promote better sleep (lavender, valerian).

Conclusions: The study demonstrates that UMFST students have a non-pharmaceutical ally. Tea, a pioneer in medicine, fulfills their needs and turns into a topic of reflection.

Keywords: tea, stress, session, lifestyle

QUALITATIVE ASSESSMENT OF WATER FOR HUMAN CONSUMPTION FROM SPRINGS AND PUBLIC WELLS IN GORJ AND MUREȘ COUNTIES

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Background: Drinking water quality is essential for public health, especially in rural communities not connected to centralized networks. This study analyzes water quality from springs and public wells in Gorj and Mureș counties, in relation to disease risks.

Objective: Comparing the physicochemical and microbiological parameters of water from the two counties and evaluating potential risks to the health of the exposed population.

Material and methods: Monitoring reports from 2019-2023, provided by the Public Health Departments, were analyzed. Parameters evaluated: E.Coli, enterococci, coliform bacteria, nitrates, ammonium, turbidity and residual chlorine. Statistical processing was performed in Microsoft Excel and Jamovi, using the T-test($p<0.05$).

Results: In addition to water supply from the centralized network, alternative sources such as wells and springs are used in the cities of Sighișoara (Mureș county) and Tismana (Gorj county). In Gorj county, exceedances of limits for turbidity, ammonium and nitrates were frequently observed, but biological non-conformities were also recorded (e.g., E.coli>10 CFU/100ml). In Mureș county, microbiological parameters exceedances predominate. The T-test confirmed significant correlations between non-compliant parameters and increased incidence of waterborne diseases ($p<0.05$).

Conclusions: The results highlight the need to intensify water quality monitoring, rapid interventions from authorities and health education in vulnerable communities. Measures to improve alternative sources, such as wells and springs are necessary to prevent public health risks.

Keywords: water, quality, public health, springs, wells.

WHO IS THE AUTHOR? STUDY OF LETHAL STABBING WOUNDS

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Background: Wounds inflicted by sharp objects represent a significant cause of violent mortality worldwide, encompassing both homicide and self-inflicted. Self-inflicted wounds typically exhibit hesitation marks and are found in accessible body regions, whereas heteroproduced wounds tend to be deeper, located in less accessible areas and often show defensive injuries. Various contributing factors, including age, alcohol consumption and wound typology must be analyzed to understand the phenomenon.

Objective: This research aims to examine the mechanisms underlying injuries caused by sharp objects and their secondary aspects. Emphasis is placed on identifying correlations between causal and environmental determinants to elucidate the interplay of factors leadin

Material and methods: A comprehensive review of recent literature was conducted to explore socio-demographic and medico-legal aspects related to the subject. A retrospective, descriptive, cross-sectional study was performed, analyzing 37 cases of fatal injuries inflicted by sharp objects between 2014 and 2022. The requisite information was extracted from forensic autopsy reports archived at the Institute of Forensic Medicine in Târgu Mureș. The collected data was organized and analyzed using Microsoft Excel and GraphPad and SPSS IBMv26. Chi-square tests revealed statistically significant results (p 0.05) were found between the aggression's type and its temporal or spatial distribution.

Results: Findings indicate that adults represent the most affected demographic, with age ranging from 20 to 86 years (mean of 51.3 years). 64.9% of the victims were males, with an approximately equal distribution between urban and rural backgrounds. 62.2% of cases resulted from violent interpersonal altercations, whereas 37.8% were self-inflicted injuries. A seasonal increase in interpersonal violence was observed during colder months, likely due to increased indoor interactions and alcohol consumption. The high prevalence of self-inflicted injuries suggests a potential association with psychiatric disorders. However, as medical histories are generally unavailable at autopsy, this underscores the necessity for greater forensic and clinical attention.

Conclusions: Statistical analyses reveal significant distinctions between self and externally inflicted injuries, contingent upon multiple variables, including wound characteristics, sex distribution, and the involvement of alcohol. These findings are consistent with existing international literature and reinforce the need for further interdisciplinary research in forensic and psychiatric fields.

Keywords: sharp objects, hetero-aggression, self-inflicted injuries, forensic analysis

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FORGIVENESS AND HEALING - EXPRESSION OF SEX

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Background: Healing is also related to forgiveness, and a holistic approach is the key to restore the overall balance.

Objective: The paper analyzes the relationship between forgiveness and healing focusing on the impact that sex has on forgiveness or healing.

Material and methods: A psycho-pastoral survey was applied to a sample of 135 respondents between September and December of 2024.

Results: To the question "Who do you think forgives more easily, women or men?", 58.5% of total demonstrate that women are more forgiving, having a natural tendency towards empathy, being driven by their motherhood instincts. Only 23% think that men are more likely to forgive and the rest of 14% do not make a difference between the two genders. Moving to the next question, "Who do you think heals more easily, women or men?" 40.7% chose the answer "women", bringing as an argument their reflective nature and maintaining a closer relationship with God. By contrast, men are discouraged by society from working on their emotional side. Regarding the intrinsic connection between forgiveness and healing, the majority (75.6%) claims that forgiveness can help in/on healing some diseases, as the healing process always starts from within. Also, studies confirm that healing paves the way for releasing resentment, thus, 69.9% say that healing can lead to forgiveness.

Conclusions: The study shows that women are more forgiving and can heal more easily, by being more empathetic, tending to self-sacrifice in relationships, while men struggle more to reach healing. Forgiveness and healing maintain a mutual connection, mental health being closely linked to physical health, regardless of gender.

Keywords: forgiveness, healing, women, men

DOCTOR AI, IS MY CHILD ON THE AUTISM SPECTRUM? AN EVALUATION OF THE QUALITY OF MEDICAL INFORMATION PROVIDED BY ARTIFICIAL INTELLIGENCE MODELS

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Background: The Internet is increasingly being integrated as a routine tool in medical practice. The emergence of conversational linguistic models of artificial intelligence can take over the role of informing patients, subsequently influencing their decisions.

Objective: The objective was to assess the completeness and accuracy of three Large Language Models of Artificial Intelligence (LLM-AI) to questions asked in English about the autism spectrum disorder.

Material and methods: The questions asked to the three LLM-AI simulated the questions asked by parents who suspected their children of being on the autism spectrum. The three chosen LLM-AI were (ChatGPT-Open AI, Gemini AI-Google and Claude-Anthropic). The assessment was carried out according to an information quality scale developed from the literature. The assessment resulted, in computation of completeness and accuracy scores from 0 to 10. Two scenarios were applied, scenario A using a single general question and scenario B using multiple specific questions.

Results: In scenario A: ChatGPT and Gemini had an equal completeness score of 6.3, while Claude had a score of 5.8. The overall completeness score was 6.1. In terms of accuracy, ChatGPT had the highest score of 8.7, Gemini had a score of 7 and Claude had a score of 6.4, the overall accuracy score for Scenario A was 7.4.

In scenario B only accuracy was assessed, considering that multiple questions were asked and the completeness score in this scenario would be maximum for all the LLM-AIs. ChatGPT had an accuracy score of 8.1, the overall accuracy score for Scenario B was 8.

Conclusions: ChatGPT-Open AI responses showed a slight superiority compared to the other LLM-AIs. The scenario with multiple and specific questions showed better performance than the one with a single, general question. The use of LLMs for medical purposes should be complemented by guidance from medical professionals.

Keywords: internet, medical information, artificial intelligence, autism spectrum

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TRUTH OR MYTH – β-LACTAM ALLERGY

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Background: Beta-lactam antibiotics are the first-line treatment option (the most effective and least toxic) for many infections. A suspected beta-lactam allergy, which leads to the use of a second-line treatment, is a condition that causes significant problems medically, ethically and financially worldwide.

Objective: The aim of this study was to verify if beta-lactam allergy is an overestimated condition.

Material and methods: This was a retrospective, observational study, which was conducted by analyzing the clinical observation sheets of patients with day hospitalization in the Internal Medicine Clinic I of the Tîrgu Mureș County Emergency Clinical Hospital, between February 2017 and July 2024. The patients included were those that were suspected of being allergic to beta-lactams due to a history of adverse reactions to this type of drug. Patients with suspected allergies to other types of drugs or no history of adverse reactions to beta-lactams were excluded. The following tests were used: skin-prick, intradermal and provocation.

Results: The percentage of positive, negative or inconclusive results were calculated for beta-lactam antibiotics in total, but also for the 3 subclasses: penicillins, cephalosporins and carbapenems, and then compared with known data. Out of the 40 patients: 32% had positive and 8% had inconclusive test results for beta-lactam allergy, 36% had positive and 4% had inconclusive test results for penicillin allergy, 28% had positive and 8% had inconclusive test results for cephalosporin allergy, 33% had positive and 0% had inconclusive test results for carbapenem allergy.

Conclusions: It can be seen that none of these percentages exceed 40% of cases, not even if we sum the percentage of positive results with the percentage of inconclusive results for each class. Thus, in at least 60% of cases the suspicion of beta-lactam allergy was refuted, which demonstrates the incorrect labeling of these patients.

Keywords: allergy, beta-lactam antibiotics, overestimated

BETWEEN BLUR AND REALITY: SELF DIAGNOSE OR SELF DECEPTION

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Background: Approximately 2.3 billion people are affected by refractive errors, with the incidence estimated to reach 50% by 2050.

Objective: In an age where `Google and ChatGPT diagnosis' ` rival ophthalmological consultation, we tried to see how well students are informed about the screening programs and what are the factors that influence their choices regarding their visual health.

Material and methods: The study involved 147 students from different study programs. The data was gathered via a Google Forms online survey composed of 29 closed questions including information about lifestyle, ophthalmological symptoms, and their interpretation using the internet for self-diagnosis. Microsoft Excel was used to organize the data from the questionnaires. Descriptive and association statistical analyses were performed using SPSS (Statistical Package for the Social Sciences).

Results: Of the 147 participants, 127 (86.4%) had heard about the screening programs, and 112 (76.2%) were aware that they could benefit from free consultations through their general practitioner. 87 of the study participants respond that they search for their symptoms on different platforms or websites, Google being in the first place with a percentage of 66.7%. It was followed by accredited sites and specialized articles such as PubMed, Elsevier, etc. (51.7%), and 26.4% of participants turn to ChatGPT for answers. Only 70 students confirmed that they had sought a specialist ophthalmological consultation after that for a more accurate diagnosis and treatment. No statistical significance was found between the source of information and the decision to request a medical consultation.

Conclusions: While online platforms are widely used for preliminary health information, their influence on the decision to pursue professional medical consultation appears limited among students.

Keywords: students, refractive errors, ophthalmological symptoms, self-diagnosis, screening

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A PEDIATRIC CASE OF ACUTE RHEUMATIC FEVER PRESENTING WITH MIGRATORY ARTHRALGIA AND CARDITIS

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Background: Acute rheumatic fever (ARF) is an abnormal immunologic response to group A Streptococcus infections. ARF is a multi systemic disease and may have cardiac, neurologic, musculoskeletal, or dermatological manifestations. One of the most severe complications is carditis, which can result in rheumatic heart disease.

Objective: We present the case of ARF in a pediatric patient who initially presented with migratory arthralgia.We aim highlight the importance of early cardiologic evaluation and comprehensive management.

Material and methods: A 11-year-old female presented with a two-month history of migratory joint pain, initially involving the ankles and progressing to wrists and fingers.Associated symptoms included intermittent fever and morning stiffness.Physical exam showed arthralgia without overt arthritis. Laboratory findings revealed elevated acute phase reactants (CRP 112 mg/L, ESR 88 mm/hr, fibrinogen 590 mg/dL), high ASO titer (403 IU/mL), and borderline hyponatremia. Auscultation revealed a pansystolic murmur.

Echocardiography showed mitral regurgitation,aortic regurgitation and moderate pericardial effusion.Immediate treatment was prompted and included: IM penicillin, corticosteroids (prednisolone) and IV diuretics. The patient was monitored in a pediatric ICU setting due to cardiorespiratory symptoms.

Results: The patient responded to corticosteroid therapy and the cardiac function improved.One of the goals of the therapy was normalising sodium levels which was obtained with dietary adjustment and aldactone. The patient was discharged on oral diuretics, prednisolone and monthly IM benzathine penicillin prophylaxis.The clinician decided to initiate FMF(Familial Mediterranean Fever) gene testing due to regional prevalence. A follow-up echocardiography was performed showing persistent but non-progressive valvular involvement.

Conclusions: The particular nature of this case underscores the need for high clinical suspicion of ARF in children presenting with migratory arthralgia and elevated inflammatory markers, particularly following streptococcal infections. Early echocardiographic evaluation is essential, as carditis may be the first serious manifestation. Comprehensive management including immunosuppressive therapy, antimicrobial prophylaxis, and cardiac support can significantly improve outcomes and prevent progression to rheumatic heart disease.

Keywords: ARF, carditis, migratory arthralgia, prednisolone

FATAL CEREBRAL HYPERPERFUSION SYNDROME FOLLOWING CAROTID REVASCULARIZATION: A CASE REPORT

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Background: Cerebral hyperperfusion syndrome (CHS) is a rare but severe complication that can occur following carotid endarterectomy (CEA) or carotid artery stenting (CAS). It is characterized by focal cerebral injury due to excessive cerebral blood flow (hyperperfusion) after a revascularization procedure.

Objective: To highlight the potentially fatal risks, such as reperfusion injuries, associated with arterial recanalization procedures.

Material and methods: We present the case of a 79-year-old hypertensive and cardiac patient, with a history of vertebrobasilar ischemic stroke in 2005 and full neurological recovery. The patient was on regular antihypertensive treatment but was not on antiplatelet therapy. Upon admission, the patient presented with a motor deficit in the right upper limb upon awakening, with improving symptoms.

CT angiography revealed severe atheromatosis of the left internal carotid artery (ICA) with 75% stenosis and moderate stenosis of the right ICA at 65%. Cranial CT showed moderate, diffuse, bilateral cerebral atrophy, chronic lacunar lesions, and bilateral leukoaraiosis. Femoral puncture was performed, followed by recanalization of the affected vessels. Stents were implanted at the common carotid artery (CCA) and ICA, with no intra-procedural complications.

Results: Three hours after being transferred to the ward, the patient developed motor deficits in the right limbs and disturbances in comprehension and verbal expression. Neurological examination revealed right central facial palsy, right hemiplegia, and mixed aphasia. CT scan showed a left parietotemporal hematoma, causing mass effect on midline structures and a rightward shift of 7 mm. 3 houtrs later, a repeat CT scan showed hematoma enlargement. The following day, the patient developed bradycardia, progressing to asystole. Despite resuscitation, the patient remained unresponsive.

Conclusions: Hyperperfusion syndrome is a serious complication following carotid revascularization. Careful screening, postoperative monitoring, and aggressive blood pressure management are essential in minimizing its impact.

Keywords: Hyperperfusion syndrome, Carotid revascularization, Parietotemporal hematoma

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SEVERE REPETITIVE HYPOGLYCEMIA IN AN ELDERLY TYPE 1 DIABETIC PATIENT WITH BLINDNESS

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Background: Type 1 diabetes (T1D) is typically diagnosed in childhood or adolescence, but it can also develop later in life due to late-onset islet autoimmunity or a slowly progressive form of the disease. Adult-onset T1D, especially in the elderly, is less well characterized and frequently complicated by multiple comorbidities that impair management.

Objective: To highlight the challenges of managing T1D in elderly patients.

Material and methods: We report the case of a 75-year-old woman with T1D and a history of repeated hospitalizations due to severe hypoglycemia and loss of consciousness, culminating in a left pertrochanteric fracture. Her medical history includes bilateral blindness due to macular degeneration, distal symmetric polyneuropathy, left-sided ischemic stroke, osteoporosis, and severe depression.

Results: Initially diagnosed with type 2 diabetes based on age and symptom severity, the patient was treated with oral antidiabetics and insulin. However, her low body mass index (21.48 kg/m^2), reduced C-peptide level (0.17 mg/dL), and positive anti-GAD antibodies confirmed a diagnosis of T1D, with onset at age 63. Her blindness severely limits self-monitoring of blood glucose and independent insulin administration, leading to recurrent life-threatening hypoglycemia. Coexisting osteoporosis increases the risk of fractures, further worsening her clinical prognosis.

Conclusions: T1D can develop in older adults and is frequently underrecognized. Accurate diagnosis, the use of continuous glucose monitoring systems, psychosocial support, and management of comorbidities are essential for improving outcomes in elderly patients with T1D.

Keywords: Type 1 diabetes, Elderly, Blindness, Continuous glucose monitoring systems

THE PREDICTIVE ROLE OF INFLAMMATORY MARKERS IN THE CLINICAL OUTCOME OF PATIENTS WITH PERITONITIS

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Background: Secondary peritonitis represents an inflammatory response of the peritoneum triggered by infection or chemical irritation originating from an intra-abdominal source, most frequently from the gastrointestinal tract. It may result from spontaneous, traumatic or postoperative perforation.

Objective: The aim of this study was to evaluate the association between the levels of inflammatory markers at hospital admission and several clinical outcome parameters in patients with secondary peritonitis, including mortality, reoperation, length of hospital sta

Material and methods: The study group included 133 patients diagnosed with secondary peritonitis and hospitalized in the Emergency County Hospital, "Surgical Clinic 1", Targu Mures between 2022 and 2024. Patients whose primary diagnosis was not peritonitis and those with unavailable laboratory investigations were excluded. A retrospective, observational study was conducted, and data were collected from patient discharge summaries. Variables included inflammatory marker values (lymphocytes, neutrophils, monocytes, C-reactive protein), patient age, length of hospital stay, and the presence or absence of death, reoperation, and complications.

Results: Statistical analysis revealed that leukocyte count (mean = 7.73 $x10^3$/μL, $p < 0.001$), neutrophil count (mean = 4.82 $x10^3$/μL, $p < 0.001$), and monocyte count (mean = 0.55 $x10^3$/μL, $p = 0.006$) were significantly lower in patients who required surgical reintervention (n = 7). Leukocyte counts were also significantly lower in patients who died (mean = 9.85 $x10^3$/μL, $p = 0.042$; n = 36). C-reactive protein levels were lower in patients under the age of 55 (mean = 162.32 mg/dL, n = 45, $p = 0.046$).

Conclusions: Reoperation and mortality were associated with lower levels of inflammatory markers at admission, suggesting a potentially inadequate or insufficient inflammatory response.

Keywords: Secondary peritonitis, inflammatory markers, clinical outcome, age

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RISK FACTORS ASSOCIATED WITH CLINICAL SEVERITY IN CHRONIC VENOUS INSUFFICIENCY: A RETROSPECTIVE MONOCENTRIC STUDY

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Background: Chronic Venous Insufficiency (CVI) is a common condition characterized by impaired venous return in the lower limbs, often leading to symptoms like pain, edema, and skin changes. Its severity has been associated with comorbidities like hypertension and stroke, as well as elevated biochemical markers including WBC and blood urea nitrogen.

Objective: The primary objective of this study is to analyze and identify the risk factors associated with the progression of Chronic Venous Insufficiency (CVI) and the occurrence of varicose ulceration.

Material and methods: This study conducts a retrospective analysis of all patients diagnosed with CVI admitted to the Vascular Surgery Department for surgical treatment. We extracted data from the hospital's electronic database about age, sex, cardiovascular conditions, common risk factors, and the clinical stage of CVI, following the CEAP classification. Additionally, we recorded laboratory values prior to surgery. We excluded patients lacking any of this information, those who had previously undergone CVI surgery on the same limb, and individuals with CVI affecting the small saphenous vein. Every patient received high ligation and stripping of the great saphenous vein (GSV).

Results: In this study, we enrolled 308 patients, with a mean age of 56.61 ± 13.77 years. Among these participants, 117 patients (37.98%) identified as male and 191 patients (62.02%) identified as female, with 57 patients (33.57%) diagnosed with CVI C6. Regarding comorbidities and risk factors, patients with CVI C6 presented a higher incidence of hypertension ($p=0.003$) and a history of stroke ($p=0.042$). Moreover, elevated values of WBC ($p=0.003$), blood urea nitrogen ($p=0.029$), and creatinine ($p=0.031$) were observed in these patients. Furthermore, in univariate analysis, hypertension (OR: 2.56, $p=0.004$), elevated WBC (OR: 1.63, $p=0.003$), and blood urea nitrogen (OR: 1.45, $p=0.013$) were associated with clinical severity in patients with CVI.

Conclusions: Our study indicated that hypertension and higher levels of WBC and blood urea nitrogen correlate with the clinical severity in patients with CVI.

Keywords: Chronic Venous Insufficiency, CEAP Classification, Hypertension, High Ligation and Stripping

THE IMPACT OF DIABETES ON HISTOPATHOLOGICAL CHARACTERISTICS OF CAROTID ATHEROSCLEROTIC PLAQUES

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Background: Severe carotid stenosis is the primary cause of stroke, posing a significant risk of morbidity and mortality without surgical or endovascular intervention. Various risk factors contribute to the development and progression of atherosclerotic plaques, with diabetes, dyslipidemia, and active smoking being the most commonly studied.

Objective: This study investigates the histopathological differences in carotid plaque obtained during carotid endarterectomy (CEA) between diabetic and non-diabetic individuals. Additionally, we will examine the risk factors linked to unstable carotid plaque.

Material and methods: This study performs a retrospective analysis involving 137 patients with carotid stenosis, who were admitted for CEA. We collected demographic data, comorbidities, and laboratory results from the hospital's electronic database. Histological analysis of the atherosclerotic plaque, obtained during surgery, was performed to classify the plaque type according to the American Heart Association guidelines. Additionally, we quantified the levels of inflammation and neovascularization present in the atherosclerotic plaques.

Results: In this study, we enrolled 137 patients with a mean age of 66.31±8.14 years. Among these, 90 patients (65.69%) were male and 47 patients (34.31%) were female, with 46 patients (33.57%) diagnosed with diabetes. We found a higher prevalence of ischemic heart disease (p=0.013), chronic kidney disease (p=0.019), and obesity (p=0.031) when comparing diabetic and non-diabetic patients. Histological analysis revealed a greater type VI atherosclerotic plaque incidence in diabetic patients (p=0.024). Logistic regression indicated that diabetes is associated with unstable carotid plaque (OR: 2.73, p=0.010).

Conclusions: Our study revealed that diabetes patients have a higher risk of the progression of carotid plaques into unstable plaques. Therefore, effective management of diabetes and its associated risk factors is imperative in the care of diabetic patients who are at risk of developing carotid atherosclerotic plaques.

Keywords: diabetes, atherosclerosis, carotid plaques, histopathology

THE INFLUENCE OF ANESTHESIA TYPE ON HEMODYNAMIC STABILITY IN CAROTID STENOSIS PATIENTS UNDERGOING ENDARTERECTOMY

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Background: The surgical approach for patients with carotid stenosis involves carotid endarterectomy (CEA), which yields superior long-term results compared to carotid angioplasty with stenting. Nevertheless, many patients with carotid stenosis may not be suitable candidates for surgery, particularly due to the type of anesthesia required.

Objective: This study aims to examine the impact of different types of anesthesia on patients' hemodynamic stability during carotid clamping procedures.

Material and methods: This study performs a retrospective analysis of 112 patients diagnosed with carotid stenosis who were admitted for CEA. Demographic data, comorbidities, and laboratory results were collected from the hospital's electronic database. The anesthetic and operative protocol documentation provided three measurements of systolic blood pressure (SBP) and diastolic blood pressure (DBP) taken pre-operatively, during carotid clamping, and post-operatively. The mean of the three measurements denotes the average value of SBP or DBP. Additionally, we noted the type of anesthesia used: general anesthesia (GA) or cervical plexus block (CPB), and the duration of the procedure.

Results: Concerning the type of anesthesia administered, 96 patients received CPB, whereas 16 patients required GA. No significant differences were observed between the two groups regarding demographic data, comorbidities, and risk factors. In terms of hemodynamic stability, patients who underwent CPB exhibited a higher mean SBP pre-clamping (150.59 mmHg vs. 132.75 mmHg, p=0.006), during carotid clamping (149.57 mmHg vs. 123.12 mmHg, p<0.001), and post-clamping (145.64 mmHg vs. 114.54 mmHg, p<0.001) compared with GA patients. Additionally, the duration of the operation was significantly shorter for patients with CPB (84.74 minutes vs. 101.56 minutes, p=0.011).

Conclusions: Our study revealed that CPB reduces operation time and offers enhanced hemodynamic stability for patients during the procedure, particularly during carotid clamping. Moreover, a significant advantage of this type of anesthesia is the continuous contact with the patient, which facilitates improved stratification of the risk of cerebral hypoperfusion during carotid clamping.

Keywords: carotid endarterectomy, general anesthesia, cervical plexus block, hemodynamic stability, carotid clamping

PREDICTIVE FACTORS FOR POSITIVE SURGICAL MARGINS IN PT1 RENAL TUMORS TREATED BY PARTIAL NEPHRECTOMY: A SINGLE-CENTER RETROSPECTIVE ANALYSIS

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Background: The “gold standard” treatment for pT1 renal tumors is partial nephrectomy, a procedure that ensures both oncologically safe removal of the tumor and preservation of kidney function. However, the presence of positive surgical margins on the resected surgical specimen increases the likelihood of local recurrence and may compromise patient survival. The introduction of advanced surgical techniques, together with the use of preoperative imaging, has decreased the frequency of positive margins. However, the predictive factors of positive margins are an active research topic, with inconsistent results regarding the correlation between them and histological grade, approach, and tumor size.

Objective: The aim of the study is to evaluate positive surgical margins (R1) in patients who were treated by partial nephrectomy for renal tumors classified in pT1 stages, as well as to identify risk factors associated with their incidence.

Material and methods: This work was designed as a retrospective study, carried out within the Urology Department of the Mures County Clinical Hospital. The data for this study were extracted from the hospital’s electronic database, and the analysis was performed based on the discharge notes and histopathological results corresponding to each patient, thus it was possible to correlate the results of the surgical intervention with clinical and paraclinical variables. The study was carried out using data during the period 2020-2024.

Results: Negative margins (R0) were detected in 76% of patients, and 20% of cases presented positive margins (R1). A trend towards a difference without reaching significance between the open surgical approach and the laparoscopic approach was observed in terms of positive surgical margins ($p = 0.07$). The average neutrophil-lymphocyte ratio is 7.9 in patients with R0 margins vs. 5.7 in those with R1 ($p = 0.28$). The mean monocyte-lymphocyte ratio is 0.58 at R0 vs. 0.44 at R1 ($p = 0.18$).

Conclusions: In pT1 renal tumors, partial nephrectomy remains the “gold standard”. The factors that influence the achievement of free margins are multiple, multifactorial and do not depend exclusively on the stage of the tumor. The lack of a significant difference in inflammatory markers (NLR, MLR), and postoperative creatinine between the R0 and R1 groups, but also the fact that laparoscopic operations tend to be associated with free margins, but statistical significance was not reached, suggests the need for further investigation of risk factors.

Keywords: renal cancer, partial nephrectomy, positive margins

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ASSOCIATION OF VENOUS MORPHOMETRIC PARAMETERS WITH LONG-TERM ARTERIOVENOUS FISTULA FAILURE

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Background: Patients with end-stage kidney disease (ESKD) need an optimal vascular access route for hemodialysis, with arteriovenous fistula (AVF) being the first recommended option by guidelines. Historically, intimal hyperplasia (IH) has been linked to poor long-term AVF outcomes. However, recent studies show no connection between intimal hyperplasia and AVF maturation failure.

Objective: This study aims to examine how venous morphometric parameters influence long-term AVF failure.

Material and methods: This study retrospectively analyzes 47 ESKD patients admitted to the Vascular Surgery Clinic for AVF creation. Detailed data on demographics, comorbidities, and pre-operative laboratory results were carefully gathered from the hospital’s electronic records. During surgery, a vein segment was collected for later histological and morphometric analysis. This work was supported by the George Emil Palade University of Medicine, Pharmacy, Science and Technology of Târgu Mureș, Romania, with research grant number 170/3/09.01.2024.

Results: During the follow-up period, thirteen patients experienced autogenous vascular fistula (AVF) failure. We did not observe any differences in the analyzed variables between patients with functional AVF and those with AVF failure. Morphometric analysis revealed significantly higher values of intimal thickness ($p=0.019$) and intima-media complex (IMT) ($p=0.008$) in patients who experienced AVF failure; however, no significant differences were noted concerning media thickness ($p=0.111$). Through ROC curve analysis, we identified a substantial association between intimal thickness (AUC: 0.724, $p=0.012$) and IMT (AUC: 0.753, $p=0.020$) with long-term AVF failure. Furthermore, cox regression analysis indicated that elevated intimal thickness (HR: 1.61, $p=0.022$) and IMT (HR: 1.66, $p=0.018$) were correlated with long-term AVF failure.

Conclusions: Our study revealed that increased intima thickness and IMT correlate with long-term AVF failure. Therefore, it’s not the presence of IH that links to poor AVF outcomes post-surgery, but rather the thickness of the venous wall layer. We believe that the significant wall thickness reduces wall compliance, hindering venous distension.

Keywords: hemodialysis, arteriovenous fistula, intimal hyperplasia

THE IMPORTANCE OF ABDOMINAL TRAUMA IN THE CONTEXT OF POLYTRAUMA

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Background: Trauma remains the leading cause of mortality in low- and middle-income countries, being the primary cause of death among young adults. However, population aging is leading to the emergence of a new cohort of elderly trauma patients. Abdominal trauma occurs in various contexts and through different mechanisms, with road traffic accidents and falls being the most frequently reported causes.

Objective: The aim of this study is to analyze demographic data, the context and mechanisms leading to injury, the severity, the most frequently affected abdominal organs and treatment approaches of patients with isolated abdominal trauma and those with abdominal tr

Material and methods: A retrospective study was conducted including 205 patients diagnosed with either isolated abdominal trauma or abdominal trauma in the context of polytrauma, admitted to the Surgery I Department of the Mureș County Emergency Clinical Hospital between January 2019 and December 2024. Data were collected from discharge records and statistically analyzed.

Results: Out of 205 patients aged between 18 and 87 years, 61 were diagnosed with isolated abdominal trauma, while 144 had abdominal trauma as part of polytrauma (64 with thoracoabdominal trauma and 80 with thoracoabdominal trauma associated with cranio-cerebral injuries and/or limb fractures). The severity of the injuries was assessed using the Injury Severity Score (ISS), with a mean score of 16. The most frequently affected organ was the spleen, followed by the liver and intestines. 143 patients required surgical intervention, while 62 were managed conservatively. The overall mortality rate was 13.17% (27 deaths). Among the deceased patients, 7 had isolated abdominal trauma, 8 had thoracoabdominal trauma, and 12 had thoracoabdominal trauma with other associated injuries.

Conclusions: Abdominal trauma continues to represent a significant cause of death, particularly due to its severity in polytrauma patients.

Keywords: abdominal trauma, polytrauma, surgical treatment

THE IMPACT OF HIGH LACTATE LEVELS ON THE OUTCOME OF PATIENTS UNDERGOING ON PUMP CORONARY ARTERY BYPASS GRAFTING

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Background: Ischemic Cardiac Disease is governed by an occlusion which will impair the oxygen supply to the affected cardiac territory. This impairment will lead to anaerobic conditions with the subsequent accumulation of lactate.Elelvated lactate levels has proved to hold a prognostic value in the area of cardiovascular surgery.

Objective: The main objective is to evaluate the impact of high postoperative lactate levels on the outcome of patients undergoing on pump coronary artery bypass grafting.

Material and methods: A retrospective observational analysis of 79 patients undergoing on pump coronary artery bypass grafting was conducted between January 2024 and May 2024. According to the postoperative lactate levels, the patients were divided into two groups as patients with elevated lactate (>2.0 mmol/L) and patients with normal lactate (<2.0 mmol/L). Comorbidities, risk factors, intraoperative and postoperative data from patients were evaluate. Lactate levels, intraoperative and postoperative data were compared between the two groups and the impact of elevated lactated levels was evaluated.

Results: An elevated lactate level was recorded in 29 (36.7%) patients and a normal level in 50(63.3%) patients. An impaired ejection fraction (<50%) was more common in the elevated lactate level group. Regarding the intraoperative data, the number of neccesary grafts(p=0.014) and the number of affected coronary arteries (p=0.014) was higher in the group with elevated lactate levels. Also, the patients with elevated lactate levels required longer hospitalization (p=0.018).

Conclusions: Our study observed that patients with higher postoperative lactate levels had an impaired ejection fraction, multi-vessled occlusions, requiring more grafts and a longer hospitalozation period.

Keywords: Lactate, CABG, Postoperative

THIS CASE EXAMINES THE TRAUMA RESULTING FROM A CRUSHING INJURY THAT LEADS TO A RUPTURE OF THE ACHILLES TENDON

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Background: A Krakow suture is a strong locking-loop stitch used in tendon repair, particularly for Achilles tears. It features a zigzag pattern with non-absorbable sutures, providing excellent grip and load distribution while minimizing pull-out risk for sturdy tendon reattachment.

Objective: This case involves a patient who sustained a rupture of the right Achilles tendon as a result of a work-related accident.

Material and methods: We have a case involving a 35-year-old male patient who suffered a severe work-related accident. He arrives at the emergency room with a traumatic rupture of his right Achilles tendon, an open fracture of the right calcaneus (classified as G-A III B), and a significant degloving wound on the back of his right ankle. After a thorough evaluation, the patient is admitted to the orthopedic department. Following careful preoperative preparation and lumbar spinal anesthesia, a surgical team comprising orthopedic and plastic surgeons undertakes the procedure. The surgery begins with cleaning the degenerated wound to remove debris and necrotic tissue. The team then explores the site to debride any devitalized tissues before reinserting the Achilles tendon using a double-anchored thread and Krakow sutures for secure repair. Meticulous lavage is performed to cleanse the wound, and hemostasis is achieved to control bleeding. The detached skin flap (preserved on the distal pedicle) is reattached using both fixed and delayed absorbable threads. Finally, a sterile dressing is applied, and the patient's leg is immobilized in an ankle-foot orthosis (AFO) in equinus position to ensure proper healing.

Results: Postoperatively, the patient is stable with no signs of infection at the surgical site. However, there is skin necrosis on the posterior aspect of the right ankle.

Conclusions: Despite the multiple injuries the patient presented with, the surgeons have succeeded in restoring the patient's locomotion .

Keywords: Krakow, rupture, Achilles tendon ,necrosis.

BIMALLEOLAR FRACTURE WITH POSTERO-EXTERNAL TUBEROASTRAGALUS DISLOCATION OF THE RIGHT ANKLE FOLLOWING AN ACCIDENTAL TRAUMA

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Background: Falls are a leading cause of injury in older adults, with incidence increasing due to age-related physiological changes and chronic comorbidities such as hypertension, obesity, and anemia. Trauma in the geriatric population presents unique risks due to factors like frailty, reduced bone density, and slower tissue healing, requiring an individualized and cautious approach to management. Ankle fractures, including bimalleolar fractures, are particularly common and often complex in older patients, leading to prolonged recovery and potential complications.

Objective: This case highlights the surgical management of a bimalleolar ankle fracture with associated talar dislocation in a geriatric patient, emphasizing the use of open reduction and internal fixation (ORIF) techniques to restore anatomical alignment and long-t

Material and methods: A 61-year-old hypertensive, obese patient with secondary anemia presented to the emergency department following a ground-level fall. Radiological evaluation confirmed a bimalleolar fracture of the right ankle with posterolateral dislocation of the talus. After clinical stabilization and thorough preoperative optimization, the patient underwent open surgical reduction. A lateral reconstruction plate with cortical screws was applied to the external malleolus, while a spongious screw and Kirschner wire were used to fix the internal malleolus. The procedure was performed under continuous fluoroscopic guidance. The surgical site was irrigated, and anatomical suturing in multiple layers was performed, followed by sterile dressing and immobilization with a G-P type plaster splint.

Results: The surgery was completed successfully without complications. Postoperatively, the patient remained afebrile, hemodynamically and respiratory stable. The lower limb was immobilized in a prone position, and bed rest was maintained. The patient received thromboprophylaxis, antibiotic prophylaxis, symptomatic management, and gastroprotective therapy.

Conclusions: This rare case illustrates the importance of a coordinated multidisciplinary approach in treating complex ankle fractures in elderly patients, resulting in a successful outcome and safe discharge.

Keywords: bimalleolar fracture, ankle dislocation, geriatric trauma, open reduction and internal fixation, osteosynthesis

LOWER EXTREMITY INJURIES FROM MOTORCYCLE CRASHES: A COMPLEX CASE OF HIP DISLOCATION AND MULTIPLE FRACTURES

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Background: A young patient, with no known pathological history, presents with severe polytrauma following a road traffic accident. The polytrauma involves multiple organ or body segment injuries, requiring rapid assessment, hemodynamic stabilization, and sequential surgical interventions due to the life-threatening nature of the condition and the risk of major functional complications.

Objective: The importance of rapid intervention during the “golden hour,” integrated multidisciplinary management, and the application of a sequential surgical strategy to preserve the functional integrity of the affected limb and prevent long-term complications is

Material and methods: A 32-year-old motorcyclist presents with hemorrhagic shock (BP 85/60 mmHg, pulse 132 bpm), severe polytrauma, conscious, agitated, and intense pain in the left lower limb, with visible deformity and spontaneous immobilization of the left hip in internal rotation. The clinical diagnosis included posterior hip dislocation and fractures of the femur and tibial plateau.Imaging investigations (pelvic X-ray, femur X-ray, knee X-ray, and pelvic CT) confirmed a posterior hip dislocation, fracture of the posterior acetabular wall, bifocal femur fracture, and tibial plateau fracture. FAST ultrasound excluded intra-abdominal free fluid. Laboratory results showed severe anemia and elevated lactate levels, indicating post-traumatic hemorrhagic shock.

Treatment was urgent and included hemodynamic stabilization, orthopedic reduction of the hip dislocation under general anesthesia, and temporary calcaneal traction. Surgical intervention involved temporary external fixation of the femur and tibia, followed by acetabular, femoral, and tibial osteosynthesis.

Results: Hemodynamic stabilization was promptly achieved. Surgical interventions were carried out in stages without complications. Passive mobilization began 7 days postoperatively, with no infections or thromboembolism, and the patient showed favorable progress in functional recovery.

Conclusions: Severe polytrauma with multiple injuries to the left lower limb presents a reserved prognosis, with a risk of post-traumatic osteoarthritis and long-term functional limitation of the left hip.

Keywords: Hemorrhagic shock, fractures, hip dislocation, severe polytrauma

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CHALLENGES IN DIFFERENTIAL DIAGNOSIS - ATYPICAL OUTCOMES IN THE AFTERMATH OF MAJOR OBSTETRICAL HEMORRHAGE

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Background: This case presents a young female with three previous cesarean sections who underwent an emergency fourth cesarean delivery. A pre-existing diagnosis of placenta previa contributed to extensive postpartum hemorrhage. To prevent hemodynamic collapse and allow adequate monitoring of vital parameters, a central venous catheter (CVC) was placed in the subclavian vein. The patient subsequently developed dyspnea and shortness of breath, raising suspicion of a pulmonary embolism (PE).

Objective: Obtaining valid differential diagnoses and validating their accuracy to pursue the most likely culprit responsible for the aggravating clinical presentation.

Material and methods: An emergency cesarean section was performed under general anesthesia, with the patient positioned supine and in lateral tilt. Postpartum, the patient experienced significant hemorrhage, managed with a laparotomy and hemostatic hysterectomy. A subclavian central line was placed for hemodynamic monitoring and fluid resuscitation. Acute respiratory symptoms that developed postoperatively were investigated via chest CT and X-ray. Pulmonary artery angiography was performed to assess for thromboembolism. Bilateral thoracocentesis was required to drain symptomatic pleural effusions.

Results: Pulmonary embolism was excluded by a negative pulmonary artery angiography. Chest X-ray confirmed bilateral pleural effusion, and thoracocentesis revealed a serosanguinous transudate. Chest CT demonstrated malposition of the subclavian CVC, with pleural penetration at the pulmonary apex, resulting in extravascular accumulation of infused fluids within the pleural space.

Conclusions: Although major complications occur in only 0.4% of CVC placements, their consequences can be life-threatening. Timely diagnosis is essential, particularly when faced with non-specific acute respiratory symptoms and a broad differential in the postoperative setting.

Keywords: Central venous catheter, placenta previa, iatrogenic pleural effusion

EXTIRPATING SEROUS BORDERLINE OVARIAN TUMOR, COMBINED WITH SUBTOTAL HYSTERECTOMY AND APPENDECTOMY - A CASE REPORT

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Background: An ovarian serous borderline cystadenoma is a type of tumor, originating from the ovarian epithelium, which accounts for 15% of all ovarian epithelial tumors. They often occur in the age group 45-65.

Objective: We present the case of 54-year old woman with a micro-invasive serous borderline ovarian tumor of considerable size.

Material and methods: The patient presented to the hospital with heart and respiratory failure. She said that she had gained a lot in weight, without a certain reason. At the examination, it was revealed an abnormal mass in the abdomen. The CT-scan revealed a large structure. Further investigations ensured that it was a serous borderline ovarian tumor.

Results: The surgery consisted in the removal of the tumor, which originated from the right ovary. After the main vascularization source of the tumor had been clamped, the tumor, due to its capsule, went out easily. It weighted 14kg. After the tumor had been removed, we could perform the subtotal hysterectomy. It was imposed due to stromal micro-invasions, but also the presence of adhesions from the tumor. During the surgery, we observed the inflammation of the appendix, so we performed an appendectomy. To ensure there were no other infiltrations, we performed a resection in the omentum. 8 days after the surgery the patient was discharged, with no post-op complications.

Conclusions: Serous borderline ovarian tumors are frequently found in the age group 45-65. Their formation is linked to mutations in KRAS and BRAF genes. Their particularities lies in their ability to reach astonishingly sizes. This can represent a major risk factor, due to structure compression, but also the possibility to metastasize. It is recommended to identify them early in their development, in order to prevent possible lung metastasis, but also necrosis and sepsis.

Keywords: serous borderline ovarian tumor, subtotal hysterectomy, appendectomy, KRAS.

BOUVERET SYNDROME - A RARE CASE OF UPPER BOWEL OBSTRUCTION

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Background: Bouveret syndrome is a mechanical complication of gallbladder lithiasis, which involves the formation of a fistula between the gallbladder and a part of the digestive tract. In rare cases, this can lead to the blockage of the calculus (most often at the level of the ileocecal valve) and consequent intestinal obstruction.

Objective: The purpose of this paper is to highlight the appropriate surgical management of these rare cases.

Material and methods: We present the case of a 74-year-old woman, who was admitted to our surgery department accusing epigastric and right upper quadrant abdominal pain, loss of appetite, nausea associated with postprandial vomiting. Symptomatology began insidiously and worsened two days prior hospital admission. Laboratory results showed hypopotasemia and dehydration syndrome. Computed tomography scan revealed significant gastric distention and a 5 cm diameter obstructive calculus located between the pylorus and the D1 portion of the duodenum, findings that are consistent with a biliodigestive fistula.

Results: An emergency laparotomy was performed. Intraoperatory, a cholecystoduodenal fistula was found, with a large calculus impacted at this level, compressing the duodenal bulb; the distended, hypotonic stomach occupies most of the peritoneal cavity. The stone was manually displaced in a retrograde manner into the gastric cavity and then extracted through an anterior gastrotomy, which was sealed with double layer suturing. A posterior transmesocolic gastroenterostomy was done to facilitate bowel movements. Postoperative evolution was favourable, the patient is discharged in good general condition, with restored intestinal transit, without any complications.

Conclusions: The surgical procedure in these rare cases of Bouveret Syndrome with upper intestinal obstruction aims to solve the acute pathology; we consider that approaching the biliodigestive fistula is not optimal in this context, due to considerable morbidity and mortality rate of these patients, as literature also mentions.

Keywords: Bouveret Syndrome, intestinal occlusion, biliodigestive fistula

SEVERE RECTAL BLEEDING OF VASCULAR ORIGIN – CASE TREATED BY SELECTIVE EMBOLIZATION

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Background: Rectal bleeding is a manifestation of lower gastrointestinal hemorrhage, which can have rare but serious vascular causes such as aneurysmal dilatations. Rapid diagnosis and minimally invasive treatment are essential to prevent complications.

Objective: We present a case of severe rectal bleeding in a patient with an actively bleeding aneurysm from a branch of the superior mesenteric artery (SMA), treated interventionally.

Material and methods: A 76-year-old hypertensive female presented to the emergency room with recurrent rectal bleeding. A lower gastrointestinal endoscopy was performed, which revealed fresh red blood and a moderate amount of blood clots. The mucosa showed multiple medium-sized diverticula, covered with fresh blood. The anal canal presented with thrombosed external hemorrhoids.

An endovascular procedure was performed in the Interventional Radiology Department. An aneurysmal dilation measuring up to 2 mm was identified at the level of an ileo-colic branch. Selective catheterization of the ileo-colic branch from the Superior Mesenteric Artery (SMA) was performed. Control contrast injection demonstrated occlusion of the feeding artery of the aneurysm. The procedure was performed interventionally, and a platinum coil was deployed for selective embolization of the vascular lesion. No complications were observed.

Results: The procedure was effective in stopping the bleeding. Post-procedural evolution was favorable, with hemodynamic stabilization and discharge in good condition.

Conclusions: Vascular-origin rectal bleeding requires a multidisciplinary approach. Superselective embolization is an effective and safe option for controlling hemorrhage in high surgical risk patients.

Keywords: Rectal bleeding, aneurysm, SMA, embolization

COMPARATIVE ANALYSIS OF THE INFLAMMATORY STATUS IN PATIENTS WITH BRAIN METASTASES ARISING FROM LUNG AND BREAST CANCERS

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Background: Brain metastases (BM) affect approximately 10-40% of patients with malignancies, the majority occurring in those with lung and breast cancers. Certain inflammatory indexes such as the Neutrophil-to-Lymphocyte Ratio (NLR), Platelet-to-Lymphocyte Ration (PLR), Lymphocyte-to-Monocyte Ratio (LMR), and the Systemic Immune-Inflammation Index (SII) have been associated with tumour control and the prognosis of various malignancies.

Objective: The aim of this study is to evaluate and compare the inflammatory response of patients with BM originating from lung and breast cancers, respectively, a group of healthy individuals.

Material and methods: A retrospective, descriptive study was conducted on a sample 153 patients admitted to the Târgu Mureș Clinic of Neurosurgery between January 2020 and December 2024. We divided the patients in 3 groups: Group 1 – patients with BM of lung cancer origin, Group 2 – patients with BM of breast cancer origin and Group 3 – healthy subjects. For all subjects, routine laboratory variables were collected and the inflammatory indexes were calculated.

Results: Non-parametric Kruskal-Wallis tests revealed significant differences in SII, PLR, NLR and LMR across the 3 groups ($p<0,0001$). Group 1 had the highest median of NLR (4,45) and SII (1357,3), indicating a stronger inflammatory profile than the other groups. The median of PLR was the highest in Group 2 (175,71) and the lowest in Group 3 (115,83). In contrast, LMR was the highest in healthy individuals (Group 3=3,73) and lowest in Group 1 (2,17), being considered a favourable prognostic factor. Dunn's post hoc test confirmed significant differences between metastatic patients and healthy individuals. Furthermore, using Spearman's test, we identified significant correlations between inflammatory markers within all groups.

Conclusions: Based on our findings SII, PLR, NLR and LMR values vary significantly between patients with BM and healthy individuals, suggesting their potential role as prognostic markers.

Keywords: brain metastases, inflammatory indexes, breast cancer, lung cancer

SURGICAL MANAGEMENT OF PULMONARY NEOPLASIA

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Background: Lung cancer is ranked globally as one of the most aggressive forms of cancer, holding the leading position in cancer-related mortality. The majority of cases are diagnosed at advanced stages, when therapeutic options and prognosis are limited.

Objective: The aim of this study was to evaluate the variety of surgical treatment methods and options for patients diagnosed with lung cancer.

Material and methods: We conducted a study on 84 patients with lung cancer who underwent surgical treatment with palliative or curative intent at the 1st Surgical Department of the County Emergency Clinical Hospital of Targu Mures, over a five-year period (January 2020-December 2024). Data were collected from patient observation sheets, operative protocol registers, and anatomopathological reports. All information was compiled into a database and analyzed statistically.

Results: In the study we had 58 male and 26 female patients. The dominant age range in both men and women was 62-63 years. Palliative surgical treatments were conducted for 2 patients, one who had a lobectomy and another with a wedge resection. The rest of the patients underwent curative procedures, which included lobectomies (48%), bilobectomies (20%), and atypical lung resections (25%). The remaining 6 patients included one total resection of the right superior pulmonary lobe and 5 pneumonectomies, of which 2 were of the right lung and 3 of the left lung. The mortality rate of the patients, regardless of the treatment they received was 10%.

Conclusions: The management of lung tumors requires a complex, individualized approach depending on the disease stage and the patient's condition. The intraoperative management of lung cancer is a critical component of therapy, aiming to achieve complete tumor excision, preserve optimal pulmonary function, and minimize postoperative risks, therefore surgery remains the treatment of choice for early-stage lung cancer.

Keywords: lung cancer, thoracic surgery, postoperative outcomes

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THE EFFECTS OF METABOLIC SYNDROME ON THE EVOLUTION AND PROGRESSION OF SUPERFICIAL BLADDER TUMORS

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Background: Urothelial carcinoma-the most common type of bladder cancer (BC) in the industrialized countries. While this disease burden is increasing worldwide, numerous studies have been conducted in order to effectively manage the evolution of this situation. Although smoking is the highest risk factor for BC, several recent studies highlight multiple associations between this malignancy and metabolic syndrome(metS).

Objective: The aim of this study is to reveal the effects of metS on bladder tumors. Besides, we'll consider the histopathological staging, the most exposed age group and the number of reinterventions through turb procedure.

Material and methods: A retrospective, descriptive study was conducted during January2022-December2023, on a sample of 307patients(100%), aged 27-92 from the Targu Mures Urology Clinic, who underwent TURB.

Results: In our study, 307patients(100%) underwent TURB procedure and were diagnosed with urothelial carcinoma, 67(21%) being females. 136(44.3%) associated metabolic syndrome. The most exposed age group was 60-80, while the ones aged 61-70(34.2%) had a 55% higher risk than the others of developing metS. The lowest prevalence of metS was described in patients aged 20-29(0.65%).

Although the majority(78.5%) experienced Ta/T1stage, T2-3(19.21%) represented the highest risk of developing metS: more than double compared to patients with T1(OR=2.12).

Important considering the BC and metS patients as they were over 3 times more likely to suffer from high grade carcinoma(92 patients with G3;29.96%,OR=3.33).

159patients(52.64%) had only one tumor. Still, when metS associated, patients experienced multiple tumors(72 out of 136;52.94%). 188patients(61.84%) underwent turb reinterventions.

Conclusions: The correlation chronic inflammation/cancer was initially identified in the 19th century and recent clinical studies have confirmed it. MetS affects 40% of the population worldwide, providing obesity and inflamed tissues. Our study revealed that those patients who associated metS were over 3 times more likely to suffer from high grade carcinoma(G3) rather than a less aggressive type and also experienced multiple tumors.

Keywords: bladder cancer(BC), TURB, metabolic syndrome(metS), tumors

PELVIC FRACTURES – ETIOPATHOGENESIS, DIAGNOSIS, THERAPEUTIC PLANS, PROGNOSIS, AND EVALUATION OF COMPLICATIONS

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Background: Pelvic fractures are severe injuries resulting from high-energy trauma, such as road traffic accidents or falls from heights. Proper assessment of severity and appropriate management are essential to prevent complications and ensure optimal treatment outcomes.

Objective: This study aims to evaluate the primary mechanisms of injury, associated complications, therapeutic approaches, and paraclinical characteristics of pelvic fractures in patients treated at the County Emergency Hospital of Târgu Mureș.

Material and methods: A retrospective study was conducted, including all cases of pelvic fractures in patients aged 18 to 96 years admitted to the Orthopedic and Traumatology clinic between 2013 and 2024. Data were collected and analyzed from the "Hipocrate H3 Concept" system. Statistical analysis of the obtained data was performed using GraphPad Prism 9 and Microsoft Excel.

Results: A total of 455 patients were included in the study, with a gender distribution of 32.29% female and 61.99% male. The mean age was 57.79 ± 19.48 years. The most common fracture type was acetabular (39.12%), followed by pubic fractures (18.46%) and fractures of the ischium (17.36%) and ilium (17.14%). The leading causes of injury were falls from height (55.16%) and road traffic accidents (33.63%). A statistically significant association was observed between fracture type and mechanism of injury ($p = 0.024$, $p = 0.05$, CI 95%), acetabular fractures being the most prevalent in both trauma categories, occurring in 31.87% of patients who sustained a fall from height and in 50.98% of those involved in road traffic accidents. An association was found between fracture type and sex ($p < 0.0001$, $p = 0.05$, CI 95%), with acetabular fractures more prevalent in males (49.13%) and pubic fractures more common in female. Surgical intervention was performed in 14.73% of cases, with the posterior Kocher-Langenbeck approach being the preferred technique, while conservative treatment was applied in 85,27% of cases. The most frequently observed post-traumatic complications were External Popliteal Sciatic Nerve Injury (12.09%) and secondary anemia (53.42%). Additionally, renal injury was observed in 21.98% of cases, pubic diastasis in 7.03%, and pneumothorax in 1.54% of cases.

Conclusions: Pelvic fractures pose a significant challenge in modern medicine, requiring prompt diagnosis, through assessment of clinical and paraclinical findings, and tailored treatment strategies to minimize complications and optimize patient outcomes.

Keywords: Pelvic fracture, surgical approach, acetabular fracture, post-traumatic complications

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THE ESSENTIAL ROLE OF SURGICAL INTERVENTION IN PHEOCHROMOCYTOMA-INDUCED HYPERTENSION

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Background: Pheochromocytoma and ganglioneuroma are tumors originating from the neural crest. Pheochromocytoma arises from adrenal chromaffin cells, secreting adrenaline and noradrenaline, often leading to arterial hypertension. Ganglioneuroma, originating from mature sympathetic ganglion cells, is well-differentiated, grows slowly, and typically causes no symptoms; however, in rare cases, it may be associated with hypertension due to mass effect or minimal catecholamine secretion.

Objective: Through the evaluation of pheochromocytoma's prevalence and clinical impact, this study emphasizes the indispensable role of surgery in achieving optimal therapeutic outcomes in these cases.

Material and methods: A total of 29 patients with adrenal tumors were included in the study, ranging in age from 16 to 78 and having an average age of 55.71. All patients were admitted and underwent surgical intervention in the Emergency Clinical County Hospital Târgu-Mures, Second Department of Surgery, between 2017 and 2024.

Results: The study group included 9 men (31.03%) and 20 women (68.96%). Tumor localization was 34.48% on the right side and 65.51% on the left. A total of 15 patients (51.72%) benefited from a laparoscopic approach and 14 patients (48.28%) had open surgical intervention. Histopathological examination of the surgical sample revealed 10 adrenal adenomas (34.48%), 7 pheochromocytomas (24.13%)—including 4 in the left adrenal gland, 1 recurrence in the right adrenal, and 1 with ganglioneuroma and ganglioneuroblastoma. In addition, 2 cases of adrenal carcinoma (6.89%), 2 secondary tumors (6.89%) and 2 ganglioneuromas (6.89%) were identified.

Conclusions: The role of the surgical intervention is essential in the treatment of adrenal origin secondary hypertension, as the complete excision of the tumor leads to normalization of blood pressure values and improve long-term prognosis for these patients.

Keywords: Surgery,pheochromocytoma,study

A CASE PRESENTATION ABOUT A POSTERIOR ACETABULAR FRACTURE AND A HIP LUXATION - MANAGEMENT AND CASE PARTICULARITIES

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Background: Posterior hip dislocations associated with acetabular fractures represent a complex orthopedic emergency, with an increased risk of complications. The orthopedic treatment of such fractures can be either surgical or non-surgical. The coxo-femoral dislocation can be reduced outside the operating room. Although rare, there are cases in which a fractured fragment of the acetabular structure becomes interposed between the acetabular cavity and the femoral head, which can present challenges for specialists.

Objective: Analysis of the ORIF (Open Reduction and Internal Fixation) technique in a complex case of posterior hip dislocation in a patient polytraumatized with crush injuries. This case highlights the therapeutic dilemmas (closed versus open reduction), as well as

Material and methods: A 59-year-old patient presented to the Emergency Department (ED) following a polytrauma. A whole-body trauma CT scan was performed, revealing multiple fractures involving both upper and lower limbs, as well as the coxal bone and thoracic wall. In the ED, a posterolateral dislocation of the left elbow was reduced using closed reduction. Surgical intervention included an open reduction via an anterolateral (Hardinge) approach, with removal of interposed bone fragments and restoration of the posterior coxo-femoral dislocation.

Results: Postoperatively, the patient remained hemodynamically stable. During hospitalization in the Orthopedics and Traumatology Clinic, no signs of neurological or vascular damage were observed in the right lower limb. The patient was discharged in good general condition.

Conclusions: ORIF is the gold standard in the management of dislocations associated with acetabular fractures. This procedure is essential even in cases where bone fragments are interposed between the femoral head and the acetabular cavity.

Keywords: posterior hip luxation, ORIF, acetabular fracture, Hardinge approach

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BIMALLEOLAR ANKLE INJURY WITH POSTERIOR TALUS DISLOCATION IN A PREGNANT PATIENT: CLINICAL AND SURGICAL CONSIDERATIONS

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Background: Case presentation describes a young pregnant female who sustained an open Gustilo-Anderson Type 3B ankle fracture following a high-velocity trauma. While open ankle fractures represent less than 5% of all ankle fractures, the Gustilo Type 3B variant is exceedingly rare, occurring in fewer than 1% of cases. This subtype is characterized by significant soft tissue involvement, periosteal stripping, and a heightened risk of complications. The management of such complex injuries requires prompt surgical intervention and extensive postoperative care, all performed while safeguarding fetal safety.

Objective: The report aims to explore the challenges and complexities involved in treating a rare and severe orthopedic emergency and the need for cautious decision-making in the use of imaging modalities, surgical interventions, and post-operative care, ensuring tha

Material and methods: The surgical approach was tailored to the patient's condition, utilizing spinal regional anesthesia to minimize potential risks to the fetus. Radiation exposure was limited by performing an X-ray only at the conclusion of the procedure, and the patient was positioned carefully to avoid undue pressure on the inferior vena cava.

Following early and thorough debridement, the surgical protocol included open reduction with traction to correct the posterior dislocation and restore normal alignment. Internal fixation was achieved using plates and screws. The wound was closed using a flap due to the extensive soft tissue damage.

Results: Full recovery or rehabilitation for such patients lasts upwards of 6-12 months. Careful immobilization for 6-8 weeks allows for the fracture to stabilize, and wound management is crucial to prevent localized infection and promote flap reconstruction

Conclusions: Ultimately, this case exemplifies the challenges and complexities of treating high-velocity fractures in pregnant patients, highlighting the necessity of careful, evidence-based decision-making to achieve the best outcomes for both the mother and the fetus.

Keywords: Gustilo 3B, ORIF, Pregnancy, ankle fracture

MANAGEMENT OF THE PATIENT WITH PHEOCHROMOCYTOMA: SURGERY AS A DETERMINANT OF PROGNOSIS

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Background: Pheochromocytoma is a catecholamine-secreting tumor, which can be both sporadic and associated with hereditary syndromes. Most originate from the chromaffin cells of the adrenal medulla, but may also be of extraadrenal origin in about 10% of cases, giving rise to a form of hypertension that can be surgically corrected.

Objective: This paper aims to highlight the role of surgery in the management of pheochromocytoma, a rare but potentially severe condition in the absence of adequate multidisciplinary treatment.

Material and methods: We present the case of a 45-year-old patient with a history of Fabry disease, hypovitaminosis D, multiple cardiac and metabolic comorbidities, episodes of atrial fibrillation converted to sinus rhythm and hypertension refractory to treatment. Considering the young age of the patient, the secondary causes of hypertension are investigated, performing an abdominal CT scan with contrast, which reveals a right adrenal tumor mass, raising the suspicion of a pheochromocytoma. An endocrinologic consultation and specific laboratory tests are recommended to establish the diagnosis. These show an increase in urinary metanephrines and normetanephrines, confirming the diagnosis. In concomitance, phospho-calcium metabolism was evaluated, the results falling within normal values.

Results: Given the clinical and paraclinical data, surgery is decided. Right adrenalectomy is performed by laparoscopic approach, associated with extended adhesiolysis and placement of a drain for proper monitoring and to reduce the risk of postoperative complications. The evolution of the patient is favorable, he is discharged in good general condition, hemodynamically and respiratory stable, surgically cured, with recommendation for endocrinological surveillance.

Conclusions: In this case, surgical treatment was the centerpiece of the therapeutic management, with complete excision of the pheochromocytoma leading to clinical and biochemical remission of the disease. The role of the surgeon is essential not only in the operative act itself, but also in the multidisciplinary approach, contributing to a favorable prognosis in isolated pheochromocytomas.

Keywords: pheochromocytoma, hypertension, adrenalectomy

LABORATORY PROFILE OF ANEMIA IN PEDIATRIC PATIENTS ACROSS AGE GROUPS

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Background: Anemia is one of the most common health issues in pediatric patients, the two most common causes being nutritional deficiencies due to iron and vitamin B12 deficiency and the presence of inflammatory conditions due to infections.

Objective: This study aimed to compare anemia in children across age groups.

Material and methods: A retrospective analysis of 306 hospitalized patients with anemia of various causes was conducted. The sample was divided into two age groups: 0-3 years and 4-15 years. Laboratory parameters consisted of hemoglobin, hematocrit, mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), serum iron and total bilirubin.

Results: The statistical analysis revealed 271 patients with anemia from the first age group and 35 patients from the second group. There were similar mean hemoglobin values between the two groups (10.57 g/dl and 10.32 g/dl, $p=0.85$). The rest of the parameters did not show statistically significant differences either. Two statistically significant correlations were highlighted, the first between serum iron and MCHC ($r=0.233$; $p<0.001$), and the second between serum iron and total bilirubin ($r=0.305$; $p<0.001$).

Conclusions: There was a much higher prevalence of anemia in the 0-3 years age group (88.6%), compared to preschool and school children, highlighting the importance of early prophylactic interventions.

Keywords: anemia, pediatric, age

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