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## INSIDE MEDICAL CONGRESS 2022

15<sup>th</sup>-18<sup>th</sup> of December 2022

Târgu Mureș, Romania

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## BOOK OF ABSTRACTS

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## GIGANTIC ANASTOMOTIC PSEUDO-ANEURYSM: A LATE COMPLICATION OF MULTIPLE VASCULAR RECONSTRUCTION

Cezar Pântea<sup>1</sup>, Adrian Vasile Muresan<sup>1,2</sup>, Eliza Russu<sup>1,2</sup>, Olga Furtună<sup>1</sup>, Emil Marian Arbănași<sup>1,2</sup>

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2. Vascular Surgery Department, County Emergency Clinical Hospital Targu Mures

**Background:** Anastomotic pseudoaneurysm is a late complication of vascular reconstruction procedures, based on the wall injury, a defective suture technique or infection. Frequently, the pseudoaneurysm are detected when they are small, and can be managed conservatively, while large ones require treatment to prevent rupture.

**Objective:** We aim to present a gigantic anastomotic pseudo-aneurysm following multiple vascular reconstruction procedures.

**Material and methods:** We present a 73-years-old patient that presents himself in the vascular surgery unit manifesting massive edema of the left leg and a left inguinal tumoral mass. From the medical history of chronic arterial disease, having a major above-knee amputation of the right leg, and two previous vascular procedures performed on the left leg: iliofemoral bypass and a prosthetic (using the iliofemoral graft as an inflow vessel)- popliteal bypass. Upon examining the patient, a left inguinal pulsating mass is found, extending and occupying the surrounding regions, including the left hemiscrotum. CT angiography reveals a gigantic pseudoaneurysm of 14.43/11.15/20.11 cm AP/LL/CC of the proximal anastomosis of the second, prosthetic-to-popliteal bypass, extended to the left hemiscrotum and through the femoral canal and compressing entirely the left femoral vein.

**Results:** Unfortunately, the advanced trophic lesions led to the amputation of the lower left limb.

**Conclusions:** Anastomotic pseudo-aneurysm are a complication of surgical revascularization with highly risk of rupture and bleeding, that may result in post-operative complications and severe lessons for the patient.

**Keywords:** Gigantic pseudo-aneurysm; complication; amputation; anastomotic complication.

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## INNOVATION IN MEDICINE: ACCELERATING THE CARDIAC REHABILITATION POST STERNOTOMY WITH A ROBOTIC EXOSKELETON

Matei Iurea<sup>1</sup>, Mihaela Mocan<sup>1</sup>

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**Background:** Implementing a cardiac rehabilitation system after open heart surgery (implicitly post sternotomy) can drastically improve the overall outcome of the patients. People who go through a cardiac rehabilitation program, whether is assisted or not, have a lower re-hospitalization rate, a better stern stability and a faster and better overall functional capacity when compared to people who do not benefit of such a program.

**Objective:** Our objective is to present the CardioVR-ReTone, a virtual reality enhanced robotic exoskeleton built in order to help the patients who underwent open heart surgery have a better cardiac rehabilitation.

**Material and methods:** Our team built a robotic exoskeleton, CardioVR-ReTone, that uses virtual reality and a system of electric arms in order to help its users execute several exercises (for the upper body) that are part of the cardiac rehabilitation program. The exoskeleton consists of 2 main arms, each of them having seven degrees of movement. Each of the arms is assisted by 7 brushed motors in addition to mobile joints for each part thus allowing its users to make almost natural moves while making the exercises from the cardiac rehabilitation program.

**Results:** While the CardioVR-ReTone exoskeleton is still a prototype, it was thoroughly tested initially by healthy volunteers in order to validate the concept and to assess the overall functionality. Next, it was tested by patients who underwent open heart cardiac surgery in order to assess its functionality from the patients' point of view.

**Conclusions:** Implementing the novel CardioVR-ReTone exoskeleton system in cardiac surgery units can drastically improve the cardiac rehabilitation in process. Using such systems not only decreases the need for the presence of a therapist, but also is a big step towards implementing mobile cardiac rehabilitation systems at home.

**Keywords:** cardiac rehabilitation, rehabilitation robot, cardiovr-retone,

## AN UNUSUAL CASE OF PYODERMA GANGRENOSUM IN A YOUNG PATIENT

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**Background:** Pyoderma gangrenosum (PG) is a rare, idiopathic skin disorder, characterized by neutrophilic inflammation. It can have various clinical forms, such as ulcerative, pustular, vegetative and bullous. It can be associated with inflammatory bowel disease or hematological disorders.

**Objective:** We aim to present a rare case of mixed-type PG superinfected with multidrug-resistant bacteria in a young patient.

**Material and methods:** A 24-years-old patient, with no significant past medical history was admitted due to the appearance 5 days prior to admission of a painful irregularly-shaped ulcer, with a purple edge, measuring approximately 7x8 cm in size located on the right lower limb with a perilesional brownish verrucous plaque and post-bullous satellite lesions on both lower limbs. Laboratory tests identified multiple multidrug-resistant agents, positive IgG antibodies for Epstein Barr virus and Cytomegalovirus and a pro-inflammatory state. An incisional biopsy, with a later positive pathergy test, was performed and the histopathology report was of help in establishing the diagnosis of PG.

**Results:** The diagnosis of PG was established based on 2 major criteria - the rapid progression of the skin ulcer, painful, necrotic, with an irregular, violaceous border and the exclusion of other causes of skin ulceration, and 2 minor criteria: histopathological findings and rapid response to systemic corticosteroid treatment. Long-term treatment with systemic corticosteroids (1 mg/kg/day) and short-term treatment with antibiotics was started, with a complete resolution of skin lesion in 6 months.

**Conclusions:** The same patient can present different types of PG, although only one form is predominant. Even though superinfection with multi-drug resistant germs is a major complication, it is not the cause of PG. The patients should be investigated additionally and monitored periodically, because of the association with other diseases.

**Keywords:** pyoderma gangrenosum pathergy, corticotherapy

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## CYTOMEGALOVIRUS INFECTION IN A CRITICALLY ILL ADULT WITH NON-OBSTRUCTIVE ICTERUS – CASE REPORT

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**Background:** Known as a common worldwide infection, cytomegalovirus (CMV) can be the principal cause of morbidity and mortality in critically ill patients. Even though usually it is asymptomatic, increasing number of reports indicates that CMV should be investigated and treated in specifically patients.

**Objective:** We present a case of an immunosuppressed critically ill patient, whose status complicated with a CMV infection (antiCMV IgG antibodies) and who's prognostic of optimal evolution was impaired. Although the virus is not highly communicable, it can be spread from person to person by direct contact with body fluids. Moreover, after a person has had a CMV infection, the virus becomes non-active in the body. It can reactivate months or years later, most often happens when a person's immune system is weakened or suppressed.

**Material and methods:** A female patient, aged 57 years old, previously known with a history of surgery for cervix neoplasm, diaphragmatic hernia, autoimmune thyroids, gastroenteritis and colitis post radiotherapy and chemotherapy, was admitted in the Surgery Clinic of Clinical County Hospital of Targu Mures, in order to evacuate an abdominal abscess.

**Results:** After the surgery the patient was hospitalized in Intensive Care Unit. Medical advance support was initiated. Being mechanically ventilated and hemodynamically monitored, treatment was adjusted in order to improve patient's status. As the patient developed a status ictericus of unknown cause, multiple investigations were performed. Antibodies IgG antiCMV were positives. Even if multiple spontaneous breathing tests were performed, the mechanical ventilation weaning was not possible. Moreover, her neurological status has been progressively impaired. Finally she developed a multiple system organ failure.

**Conclusions:** Infectious cause of non-obstructive icter can be considered in immunosuppressed patients. Keeping all in mind, the synergism of CMV viremia and CMV hepatitis likely contributed to the final outcome.

**Keywords:** cytomegalovirus, non-obstructive icter



## AIRWAY APPROACH IN A PATIENT ADMITTED FOR ELECTIVE THYROIDECTOMY – A CASE REPORT

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**Background:** Varying from 0.1% to 10.1%, the prevalence of difficult airway depends on different factors: patient's status, patient's characteristics and airway assessment, and the nature of surgical procedure. By definition a difficult airway is considered when "a conventionally trained anesthesiologist experiences difficulty with facemask ventilation of the upper airway, difficulty with tracheal intubation, or both."

**Objective:** The main objective of this case report is to present the conduct of endotracheal intubation in a foreseen difficult airway.

**Material and methods:** We have assessed risk factors for a difficult intubation prior to an elective thyroidectomy surgery in a patient with potentially airway anticipated problems. We have documented the history of a prior difficult intubation, jaw mobility, neck mobility, neck deformity, and Mallampati score. Next we have proposed an anesthesia sequence and an endotracheal intubation plan in order to maintain the patient's safety.

**Results:** A female patient aged 71 years old diagnosed with nodular goiter, having a known previous medical history of cardiovascular problems and a surgical history without complications has been admitted in the Surgery Department in the County Emergency Clinical Hospital of Târgu Mureş, for an elective thyroidectomy. Anesthetic visit focused on the airway assessment and attention was given to the anatomical particularities: stage 2 obesity, Mallampati scored 4/4 points, mouth opening less than 3 centimeters, hyo-mental, thyro-mental and sterno-mental distances difficult to appreciate due to thyroid mass. Considered all of this, standard and additional equipment for a possible difficult airway were available in the operating room, as well as specialists anesthesia healthcare providers. Steps performed for anesthesia induction included preparation, preoxygenation, pretreatment, induction and paralysis, placement of the tube, and postintubation management. The first option for intubation was videolaryngoscopy and the "6 P's" plan went by book.

**Conclusions:** Anesthesiologists should be familiarized with different techniques and back-up plans in difficult airway management in order to assure patient's safety.

**Keywords:** elective thyroidectomy, difficult airway, videolaryngoscopy

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## BASOSQUAMOUS CARCINOMA – A HIGH RISK CUTANEOUS TUMOR

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**Background:** Basosquamous carcinoma(BSC) is an uncommon tumor entity. The histological features of basal cell carcinoma(BCC) and squamous cell carcinoma(SCC) are combined in BSC. The head and neck area is where BSC typically first manifests itself, it has a noticeable male predominance and given the tumor aggressiveness, the possibility of recurrence, and the potential for metastasis, it is crucial to have a BSC diagnosis as soon as possible.

**Objective:** The aim of our presentation is to highlight the importance of a right diagnosis in this type of cutaneous tumor.

**Material and methods:** A series of fragments were extracted and processed from the face of a 48-year-old female patient with a cutaneous tumor on her left brow.

The samples were then incorporated in paraffin at 56°C after being fixed in formol 10% for 24 hours at room temperature. Two specimens of 5x3 and 5x2mm thickness were cut and placed on slides.

**Results:** Histopathological changes in the tegument's structure were found, supporting the diagnosis of metatypical BCC, revealing both basaloid and squamous differentiation. In the BCC-affected areas, tumor cells were disposed in placards and nodules, presenting basaloid aspect. The nuclei of epidermal keratinocytes were larger and hyperchromatic with peripheral palisading. They also had a higher nucleus-to-cytoplasm ratio modified in favor of the nucleus. The tumor center showed keratinization phenomena, SCC with polygonal squamous cells, abundant eosinophilic cytoplasm, large nuclei, and prominent nucleoli. The SCC component exhibited mitotic figures, particularly atypical ones. The tumor was infiltrating the deep resection margin. The immunohistochemical profile confirmed the diagnoses and was positive for p40 and bcl2.

**Conclusions:** BSC is an atypical epithelial neoplasm with significant aggressivity. It is crucial to distinguish BSC from BCC due to its higher risk of metastatic spread, which requires prompt diagnosis and treatment. Recurrence is frequently quite aggressive and demands complete resection.

**Keywords:** basosquamous cell carcinoma, basal cell carcinoma, squamous cell carcinoma;

## HIGHLY AGGRESSIVE UROTHELIAL CARCINOMA – A CASE-BASED REPORT

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**Background:** Urinary bladder cancer according to the World Health Organization (WHO) is the 6th most common malignancy diagnosed in men with a 5.6/100,000 incidence and it is the 9th cause of death. The main histologic type is represented by urothelial carcinoma (UC), which originates from the transitional epithelium of the organ and is accountable for more than 90% of the bladder malignancies.

**Objective:** Emphasizing the key role of radiotherapy in painful bone metastasis as oncologic emergency.

**Material and methods:** We present the case of 69 years old male patient who presented with macroscopic hematuria containing blood clots resulting in anemia. Initial staging computed tomography (CT) showed no sign of distant metastasis. The patient underwent radical cystectomy and pelvic lymphadenectomy. Pathology revealed an infiltrative UC with metastasis in 5 lymph nodes (LN) out of 13, stage pT-3pN2M0R0. Following surgery, the patient developed pain in the lumbo-sacral region, drug-based pain management strategies were implemented. Subsequent restaging CT showed an 18mm lytic bone lesion in thoracic 7 vertebral body. Abdominal-pelvic magnetic resonance imaging (MRI) showed multiple metastasis in bilateral iliac, pubic, and sacral bones, the latter extending beyond the cortex, invading the left piriform muscle and presacral space. The patient received palliative intent radiotherapy in total dose of 8Gy (gray)/1 fraction to the painful left iliac and sacral regions, using 3D conformal technique, 10MV energy using a linear accelerator.

**Results:** The patient described the pain being 8 on initial evaluation using a pain scale assessment tool. Following palliative intent radiation therapy, we reassessed the patient, on the pain scale the pain level decreased to a 3.

**Conclusions:** Painful bone metastasis is a complication of primary tumors resulting in a poor quality of life. Radiation therapy represents an essential tool in the management of painful metastatic cancer.

**Keywords:** UC, radiotherapy, Palliative

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## ESSENTIAL FEATURES IN RADIOTHERAPY MANAGEMENT OF MULTIPLEX MENINGIOMAS IN NEUROFIBROMATOSIS TYPE II PATIENT

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**Background:** Worldwide nearly 36% of all diagnosed brain tumors are meningiomas with a female to male ratio of 3.15:1.00. Histological features show that they originate from the arachnoid cap cells. Multiple meningiomas (MM) are frequent in Neurofibromatosis type II (NF2), nearly 50% of diagnosed patients sooner or later develop MM.

**Objective:** Emphasizing the key role of radiotherapy in management of World Health Organization (WHO) grade II atypical meningiomas.

**Material and methods:** We present the case of a 71-year-old female patient with progressive muscular fatigue and headache with no other significant comorbidities. Cranial magnetic resonance imaging (MRI) has been performed showing multiple meningiomas located: right temporal, frontal, fronto-temporal, parasagittal and beneath the falciiform regions. The patient underwent neuro-surgical intervention, having only the right parasagittal meningiomas removed. Pathology revealed two distinct histologies, a WHO grade I transitional meningioma and a WHO grade II atypical meningioma. On immunohistochemical examination the meningiomas were positive for GFAP and EMA, and a Ki67 of 4%. Multiple ligation-dependent probe amplification (MLPA) was performed with a negative result but since the Ki67 is 4% the test results are limited and NF2 is still suspected. The patient underwent curative intent radiotherapy to a total dose of 54Gy (gray)/27 fractions to the tumor bed due to the WHO grade II meningioma, using 6MV energies and volumetric modulated arc therapy (VMAT) technique.

**Results:** Using state of the art radiotherapy techniques it was possible to ensure minimal radiation dose to organs at risk and ensuring that the prescribed dose could be administered safely.

**Conclusions:** Even though NF2 can't be ruled out, WHO grade II meningiomas have indication for post-surgical radiotherapy given the increased probability of recurrence. With new radiotherapy techniques it is possible to minimize neurotoxicity.

**Keywords:** NF2, Radiotherapy, Meningioma

## ANOTHER FACE OF SYPHILITIC NEUROLOGICAL DAMAGE

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**Background:** Neurosyphilis term used to describe the direct invasion of *Treponema pallidum* into the nervous system, that affects the brain, spinal cord and peripheral nerves. Parenchymal neurosyphilis is neurodegenerative in nature and it has a wide variety of manifestations, including general paresis. Parenchymal changes appear years to decades after initial infection and thanks to the availability of penicillin are uncommon nowadays.

**Objective:** The aim of this case report is to show how the unusual way of the infection with the spirochete *T. pallidum* evolves.

**Material and methods:** We present a case of a 44-years-old male patient, who presents to the emergency unit with weakness on all left side of the body. Following an MRI performed which did not showed any lesion, the patient received the pre-diagnosis of ADEM. He was transferred to another hospital for further investigations. After lumbar puncture they discovered a high protein level, without signaling any microorganisms in the CSF culture. A contrast-enhanced MRI T2/FLAIR developed hyperintense lesions extending to the corpus callosum, thalamus and mesencephalon which were observed in both periventricular areas. Without a conclusive blood test result, he was treated with IVIG and plasmapheresis. The patient's condition worsened, a new blood test was performed in another special laboratory, and for this time syphilis test results was positive. Based on these results, diagnostic for parenchymal neurosyphilis was fully accepted. His treatment consisted in 2,4 million units intramuscular benzathine penicillin per week, for three weeks.

**Results:** The last status of this patient showed a critical condition, he was intubated in the intensive care unit. Two weeks after the treatment started with the antibiotics, he had no response.

**Conclusions:** Because the patient did not show the typical evolution of syphilis infection and due to a laboratory error, the diagnosis was delayed.

**Keywords:** neurosyphilis, contrast MRI, benzathine penicillin.

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## SPONTANEOUS ILIOPSOAS MUSCLE HEMORRHAGE INDUCED BY WARFARIN

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**Background:** Warfarin is the most widely used drug in a variety of clinical cases. The most common and serious complication of warfarin therapy is bleeding. An iliopsoas hematoma is a rare clinical condition associated with high mortality. It presents itself with non-specific symptoms like pain in the lower back or hip pain.

**Objective:** The aim is to present the approach in a patient with iliopsoas hematoma.

**Material and methods:** We present a case of a 60-year-old male with a history of metallic aortic valve replacement surgery twenty years ago and atrial fibrillation for two years. The patient was treated with Digoxin 0.025 mg, Diltiazem 30 mg and Warfarin 10mg.

He reported a sudden pain in the lower back and the right lower extremity. In the emergency department, he was diagnosed with disc herniation and Diclofenac Sodium was administered intramuscularly. After 3 days the patient's pain became more aggressive, and he can't walk. The patient's vital signs were as follows: blood pressure was 89/56mm-Hg, heart rate 110/min, respiratory rate 21/min. The patient had a gluteus hematoma caused by the injection. Laboratory test revealed that the hemoglobin was 8.6g/dL and INR was 12. CT showed iliopsoas hematoma.

Vitamin K, fresh frozen plasma, co-factor and 2 units of red blood suspension were given to the patient. Warfarin treatment was stopped and replaced with LMWH 0.6 mg twice a day for 7 days. After that for 5 days he received 5 mg of Warfarin and LMWH 0,6 mg. LMWH was stopped when INR become above 2.

**Results:** The patient was fully recovered in 12 days. INR decreased to 2.5 and hemoglobin increased to 12,5g/dL.

**Conclusions:** A spontaneous iliopsoas hematoma is an uncommon condition with a low survival rate. Timely recognition and treatment of this disease can reduce mortality.

**Keywords:** warfarin, bleeding, hematoma

## CLOSING THE GAP: CANDIDA SPP. DNA EXTRACTION IN THE AGE OF MOLECULAR DIAGNOSIS

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**Background:** The standard procedure for the detection of candidemia is blood culture (BC). This method needs between 3 and 5 days for a result and delays the start of therapy. There is a stringent need for molecular diagnostics which translates into an increasing number of kits and protocols that have been developed over the last years.

**Objective:** The current paper aims to analyse current molecular techniques for Candida spp. DNA extraction and to determine which are the most efficient from a time, price and ease of usage point of view.

**Material and methods:** A comprehensive search was conducted from January 2017 to October 2022 and included the PubMed NIH database search. Included studies were peer-reviewed full-text articles published after January 2017 that provided adequate data on the diagnosis of the infection with the Candida spp.

**Results:** After the removal of the duplicates and the articles added from the reference list checking 16 articles were left.

The included papers were 10 studies on yeast extraction protocols and 6 systematic reviews focusing on the guidelines for fungal diagnosis with biochemical and molecular techniques.

The identified methods presented bellow include the following strategies: mechanical (bead beating, ultrasonication, steel-bullet beating), enzymatic (proteinase K, lysozyme, lyticase, mutanolysin, lysostaphine) and chemical extraction (formic acid, liquid nitrogen, ammonium chloride).

A major drawback is the lack of a golden standard when comparing methods and results causing discrepancy in reported outcome. Therefore, validation in clinical settings is needed before reaching a general consensus.

**Conclusions:** The current methods are inefficient and slow in detecting Candida spp. at low concentrations. That is the reason why a comparative approach of the different methods could make a great difference in these cases and could potentially prevent fungal outbreaks.

**Keywords:** DNA extraction, candidemia, molecular diagnostics, PCR, Candida

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## MEDICAL DATA PROFILING: AN INDISPENSABLE TOOL IN EVIDENCE-BASED MEDICINE

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**Background:** Medical data profiling refers to the process of analyzing, examining, summarizing, and reviewing data to gain insight into the data quality in the medical domain.

**Objective:** The purpose of this study is to provide a standardized model for categorization and processing of raw data from the current medical system to prepare it for the creation of insights through artificial intelligence (AI) software.

**Material and methods:** A data set of 1610 patients containing elements of complete blood count (CBC) was used to demonstrate the ability of this method to improve our capacity to check data quality and observe interactions and correlations.

**Results:** The tool was able to detect null, duplicate and missing data, highlight interactions through statistical tests and present an interactive way to visualize the correlations between the data in the register.

**Conclusions:** Medical data profiling has the ability to ease the work of researchers in the field, to eliminate human error and to improve the quality of studies by offering a more advanced method of verifying the data structure.

**Keywords:** Data profiling, AI, CBC

## GENDER-RELATED DIFFERENCES REGARDING PSYCHOSOCIAL IMPACT IN PATIENTS LIVING WITH CARDIAC PACEMAKERS

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**Background:** Cardiac pacemakers (PM) are used to treat and to improve survival in various cardiac conditions. However, adjusting to life with a PM may be challenging for patients. Early identification of anxiety improves short and long-term outcomes.

**Objective:** The aim of this study was to assess whether gender related differences between man and woman regarding the subjective perception of quality of life (QOL) can be found among patients living with PM.

**Material and methods:** A total number of 33 PM patients completed a questionnaire which consisted of multiple-choice questions regarding their subjective perceptions of physical, psychological and social QOL dimensions. Data was analysed to compare the differences between the two groups (n=15 men, n=18 women).

**Results:** The mean time duration since pacemaker implantation in the 2 groups was similar (women 6.78 years, SD=4.4 vs. men=5.63 years, SD=4.65), as well as age (women=71.33, SD=12.45 vs. men=75.55, SD=8.55). More than half of women (53%) reported that their mood has changed for the worse since the device was implanted, while only 27% of men confirmed this. The proportion of women reporting anxiety post-implantation was 7.5 times higher than in men (p=0.01, OR=7.5). There was a difference in the desire of each group to receive more information about living with a PM (53% women vs. 16% men, p=0.26, OR 3.33), similar results were also observed when the patients chose to benefit from a pacemaker with remote monitoring (46% women vs. 11% men, p=0.046, OR=7).

**Conclusions:** Anxiety and decline in the subjective perception of QOL was more common in the female group. Wish for more device-related information and remote monitoring was met among women. Measures has to be taken for the early identification of patients predisposed to anxiety.

**Keywords:** CIED, QOL, Anxiety

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## MINIMALLY INVASIVE SURGERY FOR BILATERAL MULTIPLE RENAL TUMOURS

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**Background:** Partial nephrectomy (PN) is the standard treatment in case of bilateral renal tumours, chronic kidney disease or solitary functioning kidney. Traditionally the open approach was preferred, but in comparison, minimally invasive PN has similar oncological and surgical results with faster recovery and shorter hospital stay.

**Objective:** The purpose of this presentation is to emphasise the role of robotic surgery in a patient with multiple renal tumours.

**Material and methods:** We present the case of a 69-year-old male patient diagnosed with cT3N0M1 renal cancer. CT scan showed two left kidney tumours, both less than 5 cm, and a left adrenal gland metastasis. The right renal tumour is a 12cm upper pole mass with tumoral thrombus extension into the right renal vein. A two step surgical management was proposed: firstly, robotic left partial nephrectomy (PADUA Score 9) with left adrenalectomy and secondly, laparoscopic radical nephrectomy. There were two main patient risks: firstly, the risk of becoming anephric and dialysis and secondly the risk of adrenal insufficiency.

**Results:** Patient was positioned in the right lateral decubitus and a 5 trocars transperitoneal access was performed. DaVinci X robot was docked. After the left colon medialisation, access to the renal hilum was obtained and left renal artery was isolated using a vessel loop. The left kidney was dissected circumferentially exposing the two renal masses. Renal ischemia was initiated using a vascular clamp. The nucleo-resection of the two masses was performed, followed by renorrhaphy using Vycril 1 separated sutures. Ischemia time was 40 minutes. Left adrenalectomy was performed. Total surgical time 120 minutes. No intraoperative or postoperative complications were encountered. Patient was discharged on day 5.

**Conclusions:** Robotic partial nephrectomy is feasible in cases of multiple renal tumours with optimal functional and oncological results and fast patient recovery.

**Keywords:** Partial nephrectomy, adrenalectomy, robotic surgery

## THE IMPACT OF THE EMERGENCE OF THE SARS COV-2 VIRUS (COVID-19) ON THE QUALITY OF LIFE OF THE POPULATION

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**Background:** Since the end of 2019, when the first cases emerged from Wuhan, China, have been reported in all over the world. Until now, over 500 million confirmed cases of COVID-19 were announced. Because the main mode of SARS-CoV-2 (Severe Acute Respiratory Syndrome) transmission is person-to-person spread, strict measures have been taken to reduce human interaction.

**Objective:** The main objective of the study was to determine the consequences of social isolation on the Romanian population due to the COVID-19 pandemic emphasizing quality of life, nutrition, and health.

**Material and methods:** For this research, was used a cross-sectional descriptive study of a prospective type, using the design of a questionnaire with different types of questions, which had as its objective the identification of different aspects related to the quality of life (QoL) of the population during the COVID-19 quarantine. The questions addressed various aspects related to stress, anxiety and depression, well-being, nutrition, and QoL. The survey was open from September 1, 2020, to March 1, 2021. A total of 109 completed questionnaires were obtained from which 100% were fully completed.

**Results:** In this study was identified a proportion of 23% of respondents who show a low level of QoL, 46% have an average level QoL, and over a third 31% of respondents have a state of high QoL. From the analysis of the data of this study, it can be observed that middle-aged people (the average age is 38.1 years) have a lower QoL, a lower diet quality index, a higher level of anxiety and stress.

**Conclusions:** For middle-aged people, and older people, different forms of help can be implemented to improve psychological resources that encourage QoL and stress reduction.

**Keywords:** COVID-19, quarantine, QoL.

## SEPTIC SHOCK WITH UNKNOWN CAUSE

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**Background:** Septic shock represents an important complication of sepsis. People with diabetes are more vulnerable to sepsis because hyperglycemia favors the rapid development of microorganisms and the function of the cells of the immune system is altered.

**Objective:** The aim is to present the approach in a patient with multiple organ dysfunction caused by decompensation of type 2 diabetes and septic shock.

**Material and methods:** We present a case of a 70-year-old male with a history of type 2 diabetes for 22 years and chronic alcohol consumption. He drunk 8L of grape must in the last 7 days. He applied for emergency unit for altered general condition, dyspnea at rest and productive cough. He presented bilateral disseminated bronchial rales with tendency to desaturation, SpO<sub>2</sub>=93% AA, RR=26/min and arrhythmic heart sounds, BP=80/60mmHg, Hr=90/min. He had important accentuation of the bilateral lung pattern, dilated and non-hypertrophied left ventricle, preserved systolic function (LVEF=50%) without intracavitary formations. The EKG showed AFib. Investigations indicated over 500mg% of sugar blood, hyponatremia, hyperkalemia, markers of inflammation, moderate metabolic acidosis, serum lactate=8mmol/L, procalcitonin=15 ng/ml, anemia, acute kidney injury and liver failure. The urine test indicated proteinuria, the presence of ketone bodies and leukocyturia. Microscopic examination of sputum and urine culture was negative. The emergency treatment was: hemodialysis, inotropic support, correction of mineral imbalances, oxygen therapy, insulin therapy and combined antibiotic treatment with ciprofloxacin and ceftriaxone.

**Results:** Although he received the appropriate treatment, his general status worsened developing hemodynamic instability (continuing decreased <90mmHg BP and Hr >100/min) under continuous infusion of norepinephrine. AFib persisted with high ventricular rate which required anticoagulants. The Ketoacidosis treatment continued but the patient maintained critical status with septic shock and multiple organ dysfunction which eventually led to cardiac arrest and death.

**Conclusions:** Any bacteria can produce septic shock, that's why treating infections properly is essential.

**Keywords:** ketoacidosis, hemodialysis, shock

## MACHINE LEARNING IN PAEDIATRIC CARDIOLOGY – WHAT TO EXPECT FOR THE NEXT DECADE?

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**Background:** Machine learning is a branch of artificial intelligence that deals with the development of new techniques and algorithms to give computers all the possibilities to learn and process data as closely as possible to a human brain, in order to improve the accuracy of predictable results.

**Objective:** The aim of this paper is to determine the influence of the machine learning algorithms into research, personalized medicine (or precision medicine) - tailored to the individual patient, diagnosis and treatment of paediatric cardiology patients.

**Material and methods:** Materials were retrieved from Web-of-Science, PubMed, Google Scholar and Journal of the American College of Cardiology using keywords “Artificial-intelligence”, “Machine-learning” and “paediatric cardiology”. Even if it is a review about paediatric cardiology, the studies concerning adult cardiology were not excluded, although those studies showing the outcomes/end of research in paediatric cardiac diseases were prioritized

**Results:** The latest research regarding artificial intelligence, paediatric cardiology and personalized medicine, shows us that it is a particularly important moment to start providing personalized medicine services and to start new research programs with the information stored in databases.

**Conclusions:** Along with the discovery of new pathologies, or the perfection of existing knowledge about a certain paediatric cardiovascular disease, the amount of data needed to be processed increases, so that in the next decade, computers and artificial intelligence techniques (in paediatric cardiology, especially machine learning) will play a crucial role in diagnosis and treatment.

**Keywords:** paediatric cardiology, machine learning, artificial intelligence

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## ELECTRICAL STORM/REFRACTORY VENTRICULAR TACHYCARDIA DURING THE ACUTE PHASE OF MYOCARDIAL INFARCTION

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**Background:** Acute coronary syndromes (ACS), via ischemia, are well known triggers for electrical storm arrhythmia by promoting focal abnormal automaticity in cardiomyocytes.

**Objective:** To highlight the need of emergency ablative therapy and the limitations of antiarrhythmic drugs through a clinical case of a patient with no prior medical history who develops an electrical storm during the acute phase of a myocardial infarction.

**Material and methods:** We present the case of a 74-year-old patient admitted into Cardiology Department for an ACS. The ECG highlighted negative T waves in the lateral territory, and the echocardiography showed a discrete hypokinesia of the lateral wall, but with preserved ejection fraction. The patient underwent coronary angiography with the implantation of two stents at the level of the circumflex artery. Less than 24 hours after revascularization, the patient presented multiple episodes of sustained monomorphic ventricular tachycardia (SMVT), which is why a recurrence of ACS is suspected, for which the coronary angiography is repeated and does not reveal any new lesions.

**Results:** Subsequently, antiarrhythmic treatment with Lidocaine, respectively Amiodarone, is initiated. Due to passing to an hemodynamic instability state, under sedation, repetitive external electric shocks are delivered with temporary transition to sinus rhythm. The persistent recurrence of SMVT episodes motivates the installation of extracorporeal membrane oxygenation in the reanimation department. Despite performing a stellate ganglion block, no efficacy on SMVT cessation was observed. Therefore, emergency ablative therapy is performed. Focal ventricular tachycardia with onset localized on the left ventricular lateral-basal wall is identified. Afterwards, the patient evolves favorably with no occurrence of arrhythmic events.

**Conclusions:** Antiarrhythmic drugs, although often life-saving, also have important proarrhythmic effects. Considering these aspects, in many situations, even in an emergency, ablative therapy remains a viable and life-saving option.

**Keywords:** ablative therapy, electrical storm, acute myocardial infarction

## DEEP LEARNING APPROACH FOR THE TREATMENT OF MENISCAL INJURIES OF THE KNEE JOINT

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**Background:** Deep learning is a learning method based on artificial neural networks and has the ability to learn from its own mistakes, so that it becomes better and better, in the end, noticing details that may escape the doctor. Likewise, meniscal injuries, especially meniscus tears, occur in people aged 30-40 years, mainly in men, being one of the most common knee injury.

**Objective:** To highlight and systematize the role of technology, artificial intelligence, and deep learning algorithms in the process of diagnosis and treatment of meniscus injuries.

**Material and methods:** To create this review, we followed the PRISMA guidelines on several databases, including PubMed, Web of Science and Google Scholar. The information presented was carefully selected from the latest articles worldwide, that frequently referred to artificial intelligence algorithms, meniscus tears, but especially early MRI-based knee injury diagnosis and advanced treatment techniques aimed at each patient and his individual needs.

**Results:** The comparison made by us between 23 articles from 2018 to 2022 timeframe, emphasized the role of technological progress and how technology cannot help us move from a diagnosis based entirely on human knowledge and the evidence of the device, to a way in which the doctor only supervises, confirms the diagnosis and the treatment proposed by the algorithm.

**Conclusions:** Artificial intelligence and deep learning algorithms have the power to change the world and with them, we can move to a whole new level of diagnosis and treatment in meniscus injury processes

**Keywords:** deep-learning, meniscus, artificial intelligence, MRI diagnosis

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## ATRIAL TACHYCARDIA IN AN INFANT WITH SURGICALLY CORRECTED TETRALOGY OF FALLOT

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**Background:** Tetralogy of Fallot is a cyanotic congenital heart disease characterized by four specific cardiac defects: ventricular septal defect (VSD), overriding aorta, pulmonary stenosis and right ventricular hypertrophy (RVH). It can be associated with Down syndrome, DiGeorge syndrome or other chromosome disorders.

**Objective:** The aim of this paper is to present the case of a 4 months old male infant with Tetralogy of Fallot who associated dysrhythmias immediately after the surgical correction.

**Material and methods:** We present the case of a 4 months old male infant, diagnosed in utero with Tetralogy of Fallot. The patient is symptomatic with cyanosis (oxygen saturation 79%) but without hypoxic spells on prophylactic betablocker treatment. Imagistic investigations (chest CT angiography) was used for the precise description of the anatomy: mild hypoplastic pulmonary annulus and pulmonary trunk and the patient was referred to the cardiovascular surgery department.

**Results:** Considering the anatomy described by the CT investigation, primary total correction was performed with the preservation of the pulmonary annulus. The postoperative evolution was aggravated by pleuropericardial effusions, left pneumothorax and atrial tachycardia.

**Conclusions:** The particularity of the case consists of the postoperative complications (atrial tachycardia controlled with antiarrhythmic medication, pleuropericardial effusions and left pneumothorax) associated after the primary total correction with preservation of the pulmonary annulus in an infant with tetralogy of Fallot.

**Keywords:** tetralogy of Fallot, infant, atrial tachycardia



## THE IMPORTANCE OF GENETIC TESTING IN CARDIOLOGY FOCUSING ON LMNA GENE

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**Background:** The Laminin gene (LMNA) is associated with a spectrum of autosomal dominant and recessive cardiac and neuromuscular conditions.

**Objective:** We aim to highlight the importance of genetic testing in cardiology, focusing on a family with the LMNA gene mutation.

**Material and methods:** Three members from a family (mother and 2 boys) were tested with a cardiology NGS panel (Invitae, San Francisco).

**Results:** The members (mother and 2 boys) were tested due to the fact that the mother, 40 years age, presented inexplicable bradycardia and repeated lipothymia. One pathogenic variant of LMNA gene was found, the genotype was heterozygous. The children do not inherited the pathogenic variant.

This variant may lead to arrhythmia and cardiomyopathy or several forms of muscular dystrophy. Certain variants in LMNA gene can also lead to lipodystrophy or progeria. Different patients, or family members, may have different conditions or symptoms.

In our case, for the moment, the sub-classification of laminopathies for a specific diagnosis it is not possible due to the fact that currently the symptomatology of the patient is the same and is not specific.

The patient is periodically evaluated by a cardiologist and genetician in order to evaluate if additionally signs and symptoms appears, such as Cardiomyopathy, Neuropathy, Skeletal and cardiac muscular dystrophy, lipodystrophy etc.

**Conclusions:** We presented a case that was genetically tested immediately after the cardiology evaluation. For an accurate diagnosis and treatment, the patient is periodically evaluated. After the genetic testing, the physicians know what to expect and how to manage the results.

Patients with one variant in LMNA gene can have muscular dystrophy, cardiomyopathy, lipodystrophy or progeria. Some people may inherit two variants and can have a more severe form of muscular dystrophy or Charcot-Marie-Tooth disease.

**Keywords:** LMNA gene, genetic testing, cardiomyopathy, dystrophy

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## WHEN TIME EQUALS LIFE: A RARE CASE OF BOTULISM

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**Background:** Infections with *Clostridium botulinum*, although relatively rare nowadays in Romania, can still occur in patients of all ages and can be potentially lethal if not recognized/untreated. Such infections usually occur in people who consume improperly preserved food.

**Objective:** Our objective is to present a rare case of Botulism in which the diagnosis was made based solely on clinical evidence.

**Material and methods:** We present the case of a female patient who presented to the Emergency Department of a territorial hospital after developing stroke-like symptoms such as slurred speech, diplopia as well as breathing difficulties and muscle weakness. Although the patient underwent several tests (including a head scan), no significant pathologic findings were revealed. Throughout a thorough anamnesis it was determined that the patient had eaten several portions of fish pasta and therefore, the hypothesis of a *Clostridium botulinum* infection was raised. The patient was then rushed by helicopter to the nearest hospital who had antitoxin serum where she received two doses. Afterwards, the patient was transferred to the ward of an infectious disease hospital closer to her hometown.

**Results:** Shortly after receiving the antitoxin serum, the clinical state of the patient started improving slowly. However, the sequent mice inoculation test brought a negative result. Another caveat was the fact that a probe of the suspected food (that supposedly caused the infection) was not sent for a proper toxin detection. However, the patient made a full recovery and was discharged two weeks after presenting to the hospital.

**Conclusions:** Although is rare nowadays, *Clostridium botulinum* infections can still be acquired in population of all ages. Whenever there is a suspicion of a *Clostridium botulinum* infection, antitoxin serum must be given as soon as possible without waiting for a lab confirmation.

**Keywords:** clostridium botulinum, clostridium infection, antitoxin serum

## STEPPING THROUGH ALGORITHMS TOWARD THE UNDERLYING CAUSE OF REFRACTORY ASCITES

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**Background:** Ascites is an interdisciplinary condition, manifested as an accumulation of fluid in the peritoneal cavity, the most frequent causes being hepatic cirrhosis and right heart decompensation.

**Objective:** This paper has the purpose to present an enigmatic case with a well-known symptom of refractory ascites and the algorithm followed for differential diagnosis and etiology.

**Material and methods:** Our patient was a 37 years old woman who presented in February at the emergency room. She complained of fatigue, dyspnoea, abdominal distension and lower limb edemas. In the last two years, the patient increased the consumption of alcohol. The left patient's breast presented 'the orange skin' sign.

**Results:** For the ascites, the diuretic treatment was not very efficient. After 4 diagnostic and therapeutic paracenteses, the refractory ascites was confirmed, a transudate with quick restoration. The exam of ascitic fluid identified low cellularity, predominantly lymphocytes (negative for Koch's Bacillus), without malignant cells. This liquid had lower-than-normal values of amylase and total proteins. The serum ascites albumin gradient was less than 1.1 g/dL. The CA-125 was 10 times elevated (496 IU/mL), followed by a decrease to 123,4 IU/mL in the next month. Repeated gynecological consults did not highlight any abnormalities. After five months CA-125 value was 278.9 IU/mL. The cardiologist excluded right heart decompensation. The endocrinologic consult showed subclinical hypothyroidism. The abdominal CT scan showed a large amount of free intraperitoneal fluid and hepatosplenomegaly with a homogenous structure. Thrombosis of the veins: inferior cava, hepatic, portal, splenic, and mesenteric were infirmed by CT angiography. The positive cryoglobulins, subnephrotic proteinuria, and gradual appearance of renal damage indicated moreover renal follow-up. A little thigh tumor appeared after six months followed by serum proteins and calcium increase, leading to multiple myeloma suspicion, later infirmed by a hematological consult. Then, mastocytosis was also denied through serum tryptase dosage. Wilson's metabolic disease and sarcoidosis were also invalidated.

**Conclusions:** Few cases of refractory ascites remain with an uncertain etiology, despite the available high performance of imagistic and laboratory explorations. In this case, the most plausible explanation is alcoholic cirrhosis, but it becomes unlikely with the preserved secretory function of the liver and unsuggestive imagistic. The hepatic biopsy remains an alternative for diagnosis, which due to the massive ascites was postponed.

**Keywords:** Refractory ascites, Liver cirrhosis, CA125, Malignancy, Differential diagnosis

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## JAK INHIBITORS - THERAPEUTIC OPTIONS IN DIFFICULT TO TREAT RHEUMATOID ARTHRITIS

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**Background:** A chronic inflammatory autoimmune disease is characterized by three main aspects: infiltration of immune cells, release of inflammatory cytokines and degradative mediators, subsequent joint damage. Rheumatoid arthritis (RA) is one of the most important chronic inflammatory autoimmune diseases where both innate and adaptive immune responses are involved. Cytokines in RA work through different intracellular kinase pathways in order to modulate recruitment, activation and function of immune cells and other leukocytes.

**Objective:** The aim of this case report is to highlight the urge of biologic and targeted synthetic disease-modifying antirheumatic drugs. An innovative advance in RA therapy has been made through Janus kinase inhibitors with a mechanism of action that enables an effective blockade of cytokines involved in the pathogenesis of RA.

**Material and methods:** The patient BE, a 82-year-old female, known with many comorbidities and diagnosed with rheumatoid arthritis since December 2014, was treated with a diverse treatment scheme: Methotrexate 20 mg/week (2014-2016), stopped because of nausea, vomiting, hair loss; Leflunomide 20 mg/day (2016-2019), stopped due to a considerable decrease in lymphocytes; Sulfasalazine 2g/day (2017-2019), stopped due to digestive intolerance; Adalimumab 40 mg/2 weeks (2018-2019), stopped because of an important allergic reaction; Tofacitinib 2x5 mg/day (started 2019 - ongoing).

**Results:** After trying three conventional and one biologic (an anti-TNF inhibitor) DMARDs' (disease modifying anti-rheumatic drugs) for her rheumatoid arthritis and stopping them due to either allergic reactions or other adverse events, our patient started Tofacitinib (selective JAK inhibitor that preferentially inhibits JAK1 and JAK3); which is very well tolerated.

**Conclusions:** Janus kinase inhibitors represent a promising therapeutic strategy, especially in chronic inflammatory autoimmune disease. Even though Tofacitinib is recommended with caution for elderly patients, this case emphasizes the importance of having several treatment options, continuous research and innovation and personalizing medicine.

**Keywords:** rheumatoid arthritis, inflammatory disease, autoimmune disease, tofacitinib, JAK inhibitor

## ARTIFICIAL INTELLIGENCE, WHAT IT IS AND WHERE IT STANDS REGARDING TUMOR DIAGNOSIS

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**Background:** Artificial Intelligence (AI) is the ability of machines to acquire a human-like intellect of their own when it comes to learning, processing and forming conclusions based on the big data it uses. A potential role is the analysis of tumor biopsies during histopathological examination to determine the origin of the tumor and its subtype by cellular analysis using machine learning or deep learning algorithms.

**Objective:** The objective is to show the current level AI has achieved and also its setbacks in forming a complete diagnosis of the type and subtype of cancer.

**Material and methods:** We reviewed 13 publications on the advances and potential of machine learning and deep learning in analyzing digitized slides of needle core biopsies of prostate, lung and breast tissue. We studied and compared the information to evaluate machine status in terms of building correct diagnoses regarding morphology and gene expression for tumor differentiation.

**Results:** AI algorithms can be improved according to the trial and error structure as well as the dataset implemented. Therefore, the number of diagnoses offered by the AI are in accordance with those of pathologists in an increasing percentage. It showed that it even helped in raising the classification accuracy by using predictive algorithms. Unfortunately, it has low accuracy in detecting benign tumors, and even lower in detecting carcinoma in situ (CIS), especially in breast.

**Conclusions:** The current algorithm has shown improvement, especially in the diagnosis of small cell lung cancer and prostate cancer graded by Gleason score. It still has difficulties in detecting benign tumors and the AI algorithms show different results based on geographical areas. There is potential to overcome these setbacks if standardization and oversight methods are used, accompanied by communication between institutions responsible for creating and using the algorithms. Machine learning and deep learning are still equally preferred for further studies and trials.

**Keywords:** Artificial intelligence, cancer, histopathological examination, machine learning, deep learning

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## REVISION OF REVISION TOTAL HIP ARTHROPLASTY IN A MALE PATIENT – CASE REPORT

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**Background:** Total hip arthroplasty (THA) is a frequently utilised therapeutic option for hip arthritis. Even though the survival rates of hip arthroplasty are increasing, revision THA surgery is still sometimes needed.

**Objective:** The aim is to present a case of second revision THA in which trabecular titanium implants were used for facilitating bone ingrowth in a large acetabular bone Paprosky type IIIA defect.

**Material and methods:** Our patient is a 62-year-old male who suffered a hip fracture for which primary cemented THA was performed. Five years later he suffered another hip trauma which produced loosening of the acetabular implant. Revision THA was performed but 4 years later aseptic loosening of both femoral primary implant and the acetabular revision implant was observed during X-ray (Paprosky type IIIA with proximal and medial progression of acetabular component and femoral implant loosening, Harris Hip score (46), difficult walking, limited range of motion and 4 cm shortening of the inferior limb was at the time of surgery). A revision of the revision surgery was performed using the Zimmer Trabecular Metal Acetabular Revision System and Revitan stem. Trabecular titanium implants provided very good adaptability, primary stability and facilitate bone ingrowth. Surgery time 4 hours, blood loss 600 ml, tranexamic acid for bleeding control, epidural catheter for pain management.

**Results:** Very good primary fixation was obtained through the versatility and modularity of Zimmer revision hip system. Patient was charged at 5 days, partial weight bearing at 3 weeks, progressing weight bearing at 12 weeks with a Harris Hip score of 92.

**Conclusions:** Revision of revision surgery is a rare procedure which is both technically demanding for the patient and for the surgeon. There are few options which provide good long-term results and are available in the market for primary stability and a long-term bone osteointegration.

**Keywords:** hip arthroplasty, revision THA, cup-cage, titanium implants

## THE QUALITY AND RELIABILITY OF WEB-BASED INFORMATION ABOUT PULMONARY CANCER ON ENGLISH AND ROMANIAN LANGUAGE WEBSITES

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**Background:** Pulmonary cancer represents the leading cause of cancer deaths in male patients and the third in female patients. Patients' medical decisions could be severely influenced by information found on the Internet, therefore the quality and reliability of web-based data on the topic are crucial.

**Objective:** To assess the credibility, completeness, and accuracy of data regarding pulmonary cancer available online on English and Romanian language websites.

**Material and methods:** The observational, cross-sectional study included a sample of 25 websites for each addressed language. The websites were chosen based on well-established inclusion and exclusion criteria. Following the investigation of credibility, each website was evaluated by two competent evaluators on the basis of completeness and accuracy using a quality benchmark. The obtained scores were reported on a scale from 0 to 10. Differences between languages and correlations between relevant characteristics were tested at a statistical significance threshold of 0.05 using the Student t or Mann-Whitney test and the Pearson or Spearman test, respectively.

**Results:** Mean credibility, completeness, and accuracy scores for English language websites were  $5.9 \pm 1.3$ ,  $5.5 \pm 1.6$ , and  $4.5 \pm 2.3$ , respectively. The same scores were  $5.3 \pm 1.7$ ,  $6.1 \pm 1.9$ , and  $4.2 \pm 1.9$ , respectively, for Romanian language websites. The comparison tests showed no significant statistical results between the two language samples for any of the studied parameters. Similarly, there were no significant correlations between credibility scores and Google ranking on the one hand, and mean completeness and accuracy scores on the other hand, for any of the studied languages.

**Conclusions:** The quality of medical information about pulmonary cancer presented on the websites in English and Romanian languages is average. Websites' compliance with the included credibility criteria and Google ranking criteria were not proven to be reliable indicators of information quality on the studied sample.

**Keywords:** pulmonary cancer, Internet, consumer health informatics, online information quality

## INVESTIGATING THE RELATIONSHIP BETWEEN THE CHA<sub>2</sub>DS<sub>2</sub>-VASC SCORE AND POST-CORONARY ARTERY BYPASS GRAFTING COMPLICATIONS

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**Background:** Largely used for thromboembolic risk assessment and anticoagulation management in patients with atrial fibrillation (AF), the CHA<sub>2</sub>DS<sub>2</sub>-VASC score has also been demonstrated to predict risk in multiple other circumstances.

**Objective:** In this study, we aimed to assess the ability of the CHA<sub>2</sub>DS<sub>2</sub>-VASC score to predict the occurrence of post-coronary artery bypass grafting (CABG) complications.

**Material and methods:** A prospective cohort study was performed in consecutive patients scheduled for CABG in our center.

**Results:** A total of 31 patients (mean age  $60.6 \pm 9.6$  years, 80% male) were evaluated. There was no significant correlation between the CHA<sub>2</sub>DS<sub>2</sub>-VASC score and post-CABG hemoglobin or leukocyte levels (both  $p > 0.05$ ). There was also no correlation between the CHA<sub>2</sub>DS<sub>2</sub>-VASC score and post-CABG renal or liver dysfunction, minor post-CABG complications, ventricular premature beats, or length of hospital stay (all  $p > 0.05$ ). Strong negative correlations were found between the CHA<sub>2</sub>DS<sub>2</sub>-VASC score and the low-frequency (LF) components of the heart rate variability spectrum, reflecting sympathetic modulation of cardiac activity ( $p = 0.03$ ,  $r = -0.61$ ) and the LF-to-high-frequency ratio, reflecting sympatho-vagal balance ( $p < 0.01$ ,  $r = -0.73$ ). Higher CHA<sub>2</sub>DS<sub>2</sub>-VASC score was also correlated with endothelial dysfunction, expressed by elevated von Willebrand Factor plasma levels ( $p = 0.03$ ,  $r = 0.40$ ). In addition, post-operative AF occurrence was more frequently detected in patients with higher scores ( $p = 0.03$ ).

**Conclusions:** In patients who underwent CABG, the CHA<sub>2</sub>DS<sub>2</sub>-VASC score was a predictor of new-onset AF, but not of other post-CABG minor and major complications. Higher scores were, however, correlated with higher levels of endothelial dysfunction and with lower postoperative sympathetic response, indicating an altered autonomic adaptation to postoperative status in patients with high cardiovascular risk factors burden.

**Keywords:** CHA<sub>2</sub>DS<sub>2</sub>-VASC Score, coronary artery bypass graft, complications, atrial fibrillation

## SURGICAL MANAGEMENT OF CRUSH SYNDROME

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**Background:** Crush syndrome encompasses the systemic manifestations that occur after a traumatic muscle injury. As a result of rhabdomyolysis, the body's homeostasis is altered leading to multiple organ dysfunction and metabolic abnormalities. The release into the circulation of muscle breakdown products can lead to acidosis, hyperkalemia, hypocalcemia, and high levels of myoglobin.

**Objective:** The purpose of this case presentation is to show the approach we opted for a patient with Crush Syndrome that required amputation.

**Material and methods:** We present the case of a 39-year-old patient that presented to the ER with a polytrauma following crush injury. It affected the lower left limb, where the iliac vein had thrombosis and the traumatic femoral arterial and venous rupture resulted in hemorrhagic shock. Acute compartment syndrome occurred as a result of high tissue pressure within a closed muscle compartment which exceeded the perfusion pressure and results in muscle and nerve ischemia. The patient underwent three main interventions. The first one, a vascular surgery with the goal of restoring of the left femoral vein, followed by a leg and thigh fasciotomy. A thrombectomy was also necessary at the posterior tibial artery.

**Results:** The eventual complications led to the necessity of hip disarticulation, consecutive the patient was admitted to ICU with a guarded prognosis.

**Conclusions:** Even though it was taken into consideration all the possible aspects of managing Crush Syndrome, because it is an irreversible condition, performing a hip disarticulation was a tough but the only feasible decision, as it can make the difference between life and death.

**Keywords:** rhabdomyolysis, Crush Syndrome, hip disarticulation

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## INCIDENTAL FINDING OF ADENOCARCINOMA IN MAXILLOFACIAL AREAS

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**Background:** Adenocarcinoma is a malignant neoplasm arising from epithelial cells of the glandular structures. In the maxilla facial areas, it develops over a long time on the background of purulent-inflammatory diseases of the nasal cavity or paranasal sinuses. Clinically, adenocarcinoma may be considered one of the more common malignant salivary gland neoplasms. It may occur in both major and minor salivary glands.

**Objective:** The aim of this study is to highlight the importance of imaging and the early identification of warning signs in tumour diagnosis.

**Material and methods:** This case report presents a 61-year-old female patient that presented to a private dental office for complex oral rehabilitations, with no medical history. Incidentally, panoramic radiography showed a left maxillary radiolucent lesion with sinus and tuberosity involvement. A cone-beam computed tomography (CBCT) scan was done to accurately highlight the lesion and identify its extension. Osteolytic lesions were found in the alveolar process of the maxillary with sinus involvement that may have mimicked odontogenic sinusitis. A contrast computed tomography (CT) confirmed bone destruction of the left palate, maxillary and nasal fossa with pharyngeal involvement. The suspicion of aggressive benign neoplasm or maxillary cancer indicates the need for a biopsy. The histopathological result was adenoid cystic carcinoma of minor salivary gland. As per the traditional approach, partial maxillectomy of the affected side was performed with laterocervical lymphadenectomy. Resection of left inferior nasal septum, nasal conchae, and medial wall of maxillary sinus were done. Protonotherapy treatment was chosen by the positive surgical margins. An obturator prosthesis was used for functional and aesthetic reasons after the surgical treatment.

**Results:** The patient is cancer free with life expectancy of 5 years

**Conclusions:** Knowledge of imaging and radiological principles can contribute to the early detection of cancer and multidisciplinary approach is essential in the final results.

**Keywords:** maxillary sinus, adenocarcinoma, radiology

## A RARE CAUSE OF PARAPARESIS IN A 2-YEAR-OLD PATIENT - CASE REPORT

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**Background:** Paraparesis is an uncommon symptom in children. Brainstem tumors are even rarer in pediatric patients and the symptoms are usually unspecific. Unfortunately, these tumoral masses are inoperable since surgery could damage the surrounding nervous structures.

**Objective:** The aim of this case report was to highlight the importance of a thorough management in a child presenting with spastic paraparesis.

**Material and methods:** We present a case report of a 2-year-old patient admitted to clinic for sudden spastic paraparesis.

**Results:** The clinical exam at the time of admission revealed productive cough and serous rhinorrhea along with spastic paraparesis, more severe in the lower left limb. The routine laboratory test pointed out leukocytosis with lymphocytosis, as well as increased inflammatory biomarkers (C-reactive protein and erythrocyte sedimentation rate). We also noticed elevated levels of immunoglobulin A and M. The surgical consult highlighted no abnormalities. The magnetic resonance imaging (MRI) scan revealed a pontine tumor extending to the medulla with a double component-parenchymal and cystic, exerting a mass effect on perilesional nerve structures, especially on the cerebellar tonsil, which is responsible for coordinating the voluntary movement of the distal parts of limbs. Consequently, no lumbar puncture could have been done. The patient received symptomatic treatment during admission and was further referred to a specialized oncology clinic.

**Conclusions:** Although rare, brainstem tumors represent of the causes of neurological symptoms in children and a thorough management is essential in order to improve the patient's prognosis.

**Keywords:** child, paraparesis, brain stem tumor

## CERAMIC-ON-CERAMIC TOTAL HIP ARTHROPLASTY IN A YOUNG PROFESSIONAL ATHLETE – CASE REPORT

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**Background:** Hip arthritis is an uncommon pathology in young people and can be very debilitating in professional or amateur athletes due to joint stiffness, limited range of motion, muscular atrophy, and pain.

**Objective:** The aim of this case report is to present a degenerating hip arthritis in a young male athlete who returned to full activity after total hip arthroplasty.

**Material and methods:** Our patient is a 32-year-old male professional athlete who developed a severe case of degenerative arthritis (stage 4) who had a 50% reduced range of motion, a low Harris Hip Score (54) and who decided to have hip replacement. A ceramic hip endoprosthesis with an oversized ceramic head (40mm, Zimmer) trilogy titanium shell, BIOLOX ceramic head and insert, Taperloc titanium metal stem was used for better and faster osteointegration, and to support high mechanical loads because our athlete is lifting more than his bodyweight. Surgery was performed by an anterolateral mini-invasive approach with sparing of the gluteus medius and minimal tissue damage. Surgery time was 66 minutes "skin-to-skin", minimal blood loss with tranexamic acid intravenous. Peridural catheter was used for post-operative pain management, no drains.

**Results:** Postsurgical evolution of the patient has been fast and highly favourable: 12 hours after surgery partial weight bearing and mobilisation, full weight bearing at 3 weeks, body weight squats and lunges at 9 weeks, and a high Harris Hip Score (94). Very good radiological osteointegration at 10 weeks. Satisfied patient who resumed all desired sport activities at 12 weeks.

**Conclusions:** Advanced degenerative hip arthritis is very rare and debilitating in young patients because it severely affects the quality of life especially in high-performance athletes, but ceramic-on-ceramic total hip arthroplasty provides a good reproducible surgical solution.

**Keywords:** arthroplasty, ceramic hip, athlete, hip arthritis

## CHEILOGNATHOPALATOSCHISIS-ASSOCIATED RISKS IN INFANTS

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**Background:** Cheilognathopalatoschisis is a malformation characterized by dehiscence of the hard and soft palate, upper jaw and lip, being ranked the second most common malformation among children, and the ontogenetic causes are largely multifactorial.

**Objective:** The aim of this case report was to underline the most frequent complications that might occur in infants with cheilognathopalatoschisis.

**Material and methods:** We report the case of a 4-month-old male infant admitted to our clinic for prolonged fever.

**Results:** The anamnesis revealed that the infant was born with cheilognathopalatoschisis and he was detected with a complex congenital cardiac malformation during the perinatal period. The onset of the fever was approximately 3 weeks before the admission in our clinic for which he was diagnosed with otitis in a regional hospital being administered antibiotics by vein. Due to the persistence of the fever, he was readmitted in our clinic with the suspicion of bilateral otomastoiditis. We initiated treatment with cephalosporin and aminoglycoside, but the fever persisted and therefore we switched to carbapenem associated with piperacillin and tazobactam. The evolution was stationary and we performed brain MRI which revealed hypoplasia of corpus callosum and cortical atrophy. Thus, we continued the investigations and the thoracic computed tomography exam showed paracardiac left pneumonia. The repeated blood cultures were negative during the admission. The serological tests for cytomegalovirus, Epstein Barr virus, toxoplasmosis, rubella, hepatitis B and C were negative. We also ruled out tuberculosis. The specialist in infectious diseases recommended to replace the antibiotics with clarithromycin. We also inserted a naso-gastric feeding tube in order to avoid aspirations of milk due to its oral malformation. The evolution was slowly favorable and the infant was discharged after more than 20 days of admission.

**Conclusions:** Cheilognathopalatoschisis has a wide range of life-threatening complications during infancy and their proper and early prevention and management represent the cornerstone of care for the patient's long-term evolution.

**Keywords:** cheilognathopalatoschisis, infant, aspiration pneumonia

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## THE PSYCHOLOGICAL IMPACT OF THE UNFAVORABLE ENVIRONMENT ON THE UNDERAGE PREGNANCY

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**Background:** Bringing a child into the world generates, they say, the most beautiful and fulfilling feeling a woman can experience. However, the situation is different when we talk about teenage pregnancies that are, most of the time, unwanted, caused by the lack of access to education about sexual development.

**Objective:** I chose this topic, "The psychosocial impact of the unfavorable environment on the underage pregnant woman", because I consider it to be a challenge for teenagers nowadays, Romania is the second country in the EU with the rate of births among underage women.

**Material and methods:** We carried out a study in which the target population was represented by patients hospitalized in the pediatric and obstetrics-gynecology departments of the hospitals: Piatra Neamț County Emergency Clinical Hospital and Târgu Mureș County Emergency Clinical Hospital. The examination method was represented by an anonymous questionnaire consisting of 15 questions plus the demographic questions.

**Results:** Following the statistical interpretation of the data obtained based on the completion of the questionnaire by teenage girls, we obtained the highest percentage of 64% of subjects being from rural areas. Depending on the age distribution, we can say that most of the respondents are between 16-18 years old. The vast majority of parents of teenage girls do not have an adequate education, they finish only 8 classes. The patients' mothers are mostly housewives or dependent on social assistance, and the fathers have jobs but are unskilled. After analyzing the area where the subjects live, we found that they live in an area with a high crime rate and a low standard of living.

**Conclusions:** The study on the psychosocial influence of the unfavorable environment on young pregnant mothers highlighted:

- The social portrait and the emotional state of the young mother
- Making the decision to have a child
- The importance of sexual education from an early age.

**Keywords:** sexual education, unfavorable environment, underage pregnant woman, Teenage pregnancy

## DID YOU KNOW...? SOME INTERESTING FACTS IN ANESTHESIA HISTORY – A NARRATIVE REVIEW

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**Background:** Considered a mixture of science and art, anesthesia is now a cornerstone in the medical field. By definition general anesthesia involves hypnosis, analgesia and relaxation, and became the quintessential treatment that offers patients free pain invasive procedures and surgeons more complex and less time consuming interventions.

**Objective:** The main problem of interest was to reveal the evolution of anesthesia during different eras.

**Material and methods:** We have conducted a PubMed and Google Scholar search for “history of anesthesia”, in English, French and Romanian languages, in order to include the most important literature. We have identified 1334 full text review articles. The relevant articles were reviewed.

**Results:** Back in 1200, Greeks, Chinese and Incas people “used sponges soaked with opium and mandragora for surgical pain relief”. This was the earliest trace in ancient history of anesthesia used in medicine. More than 600 years later, in Massachusetts General Hospital, doctor Morton administered the first general anesthesia using ether to a music teacher for a dental extraction. The earliest 1930s embrace the introduction of the airway tubes used to control the upper airway and breathing. Meanwhile, one of the most impressive medical events took place in Germany, when resident Forssman performed the first self-central venous cannulation, inserting a urethral catheter into the right arm vein. He was perceived as imprudent and was taken out of his possible brilliant career, but in 1956 his action was awarded with the Noble Prize in medicine for the first right-heart catheterization. The technological improvements and the development of new drugs were essential to start the modern age of anesthesia.

**Conclusions:** Nowadays it is unperceived surgery without anesthesia. Moreover surgeon and anesthesiologist must function together as successful team. Thanks to the timeline regarding discoveries in the anesthesia field, modern anesthesia is one of the pioneers in medical science.

**Keywords:** anesthesia history, general anesthesia, central venous cannulation, modern anesthesia

## THE KEYSTONE FLAP-AN EASY WAY TO DEAL WITH SOFT TISSUE DEFFECTS

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**Background:** The Keystone flap, that was originally devised by Behan in 2003, is an easy way to approach the defects in different locations and it is advantageous because it reduces the need for skin grafts. This flap has been demonstrated as a versatile, safe, and easy reconstructive option for various soft tissue defects.

**Objective:** This article aims to highlight the versatility of the keystone flap for clinical applications and management of complex defects.

**Material and methods:** We retrospectively reviewed a series of successive patients undergoing reconstruction with a keystone flap for closure of a skin defect.

**Results:** Five patients, 1 woman and 4 men, ranging from 24 to 82 years old were included. Keystone flap was performed in reconstruction on the lower limb, abdomen, face, pilonidal sinus and the back defects.

**Conclusions:** The keystone flap has proved excellent results for local reconstruction of soft tissue defects all around the body. This flap can considerably reduce the time and complexity of the surgery as well as patient morbidity, and it does not require further investigation. Keystone flap is more aesthetic than skin grafts, and complications are uncommon.

**Keywords:** keystone,defect,flap,reconstruction



## MORPHOLOGICAL AND IMMUNOHISTOCHEMICAL ASPECTS OF GASTROINTESTINAL STROMAL TUMOR -CASE REPORT

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**Background:** Gastrointestinal stromal tumor (GIST) is the most common mesenchymal neoplasm of the gastrointestinal tract arising from interstitial cells of Cajal. The tumor can appear anywhere in the digestive system, although the stomach and small intestine represent the most common area. The symptoms are various and distinctive for each location.

**Objective:** The purpose of this case report is to emphasize the importance of histopathological reports in GIST diagnosis and prognosis.

**Material and methods:** A 45-year-old male patient was admitted to the Surgery Department with a gastric nodular tumor of 30x40x35 mm for which a partial longitudinal gastrectomy was performed. Microscopically, the tumor invaded the mucosa, submucosa, and muscular layer of the gastric wall. The tumor was composed of epithelioid and spindle cells, with 3 mitosis/50 HPF, without areas of necrosis. No metastases have been found in any of the eight regional lymph nodes. Immunohistochemical staining showed that tumor cells were diffusely positive for DOG1, and CD34, focally positive for CD117, and negative for SMA, and S100.

**Results:** After histological and immunohistochemical evaluation the tumor has been diagnosed as GIST, pT2 stage, with a reduced risk of tumor progression (category 2).

**Conclusions:** The majority of prognostic factors in GIST are revealed by the histopathological examination. Immunohistochemistry study minimizes diagnostic errors and helps in the differential diagnosis of GIST with gastric adenocarcinoma, a more aggressive malignancy with a worse prognosis.

**Keywords:** GIST, immunohistochemistry, prognosis

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## CYTOSORB® HEMOADSORPTION FOR ACUTE LIVER FAILURE CAUSED BY SEPTIC SHOCK DUE TO ACUTE CHOLANGITIS IN A COVID-19 PATIENT

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**Background:** Acute liver failure (ALF) is a life-threatening condition characterized by compromised metabolic and synthesis liver function with additional accumulation of toxic molecules and inflammatory cytokines.

**Objective:** This case report will focus on the efficacy of CytoSorb® hemoadsorption as an alternative to molecular adsorbent recirculating system (MARS) therapy in ALF caused by septic shock due to acute cholangitis.

**Material and methods:** A 65-year-old male patient, with a history of cholecystectomy, was admitted to internal medicine department due to dry cough. Laboratory tests showed leukocytosis (10430/uL), hyperbilirubinemia (total bilirubin - 5.2 mg/dL, direct bilirubin-26,99mg/dL), elevated serum transaminase levels (ALT- 266U/L, AST- 169U/L, GGT- 781U/L) and a positive RT-PCR test for SARS-COV-2. Antiviral treatment with Favipiravir was introduced and stopped shortly after due to adverse reactions and possible worsening of pre-existing cholestasis. The patient was transferred to the ICU department due to unfavorable evolution, with hemodynamic instability, accentuation of jaundice and cholestatic syndrome, elevated inflammatory markers (CRP- 27,6 mg/dL, procalcitonin > 10 ug/L) with further development of coagulopathy (INR- 1.55) and stage III acute kidney injury. Thoraco-abdominal CT scan revealed hepatomegaly, distal choledochal lithiasis with retrograd intra and extrahepatic cholestasis and also left basal pneumonia.

**Results:** The case was interpreted as ALF caused by septic shock due to acute cholangitis. The patient underwent veno-venous hemodiafiltration with CytoSorb® filter followed by endoscopic retrograde cholangiopancreatography (ERCP) with calculus extraction and common bile duct stenting. The patient's evolution was favorable, with significant reduction in total bilirubin levels (from 36,69 mg/dL to 1,75mg/dL) and normalization of INR, creatinine, and inflammatory markers levels. He was discharged after 17 days in the ICU.

**Conclusions:** CytoSorb® hemoadsorption represents a promising therapeutic alternative to MARS therapy in ALF, especially when associated with sepsis, due to its ability to filter both inflammatory cytokines and toxic molecules when the liver detoxification function fails.

**Keywords:** CytoSorb hemoadsorption, acute cholangitis, acute liver failure, septic shock

## NEUTROPHIL TO LYMPHOCYTE RATIO AS PREDICTOR OF IN-HOSPITAL MORTALITY IN PATIENTS WITH ABDOMINAL AORTIC ANEURYSM FOLLOWING OPEN REPAIR

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**Background:** Abdominal Aortic Aneurysm (AAA) is one of the diseases with the highest rate of mortality and morbidity regarding the risk of rupture.

**Objective:** This study aims to verify the predictive role of neutrophil-to-lymphocyte ratio (NLR) in in-hospital mortality following open surgical repair of AAA.

**Material and methods:** It was a single-center retrospective cohort study and included 103 subjects that are over the age of 18 years old with diagnostic of AAA, admitted to the Department of Vascular Surgery, County Emergencies Hospital of Targu Mures, between January 2017 and July 2022.

**Results:** Patients that were exposed to risk factors such as obesity ( $p=0.01$ ) and smoking ( $p=0.0002$ ) were more likely associated with in-hospital mortality. Higher age ( $p=0.02$ ), chronic heart failure (CHF) ( $p=0.0009$ ), chronic kidney disease (CKD) ( $p=0.005$ ), and peripheral arterial disease (PAD) ( $p=0.002$ ) were also correlated with in-hospital mortality after open repair. Regarding the laboratory data, we have a higher value of neutrophils ( $p<0.0001$ ), monocyte ( $p=0.003$ ), platelets ( $p=0.002$ ), and NLR ( $p<0.0001$ ), and lower value of lymphocyte ( $p=0.0001$ ). Multivariate investigation resulted in a high baseline value for neutrophils, platelets, and NLR, an independent predictor of in-hospital mortality after open repair of AAA ( $p<0.001$ ) for all investigated patients. Certain criteria including patients older than 70 years (OR: 2.60; 95% CI: 1.15-0.02;  $p=0.02$ ), CHF (OR: 4.24; 95% CI: 1.81-10.21;  $p<0.001$ ), CKD (OR: 4.57; 95% CI: 1.56-13.33;  $p=0.005$ ), PAD (OR: 3.86; 95% CI: 1.63-9.13;  $p=0.002$ ), smoking (OR: 5.59; 95% CI: 2.27-13.76;  $p<0.001$ ) and obesity (OR: 2.70; 95% CI: 1.19-6.12;  $p=0.01$ ), were all independent predictors of in-hospital mortality.

**Conclusions:** Our findings concluded that higher preoperative NLR values determined before operations strongly predict in-hospital mortality. Some factors like age above 70, obesity, active smoking, patients or those who suffer from cardiovascular disease (CHF and PAD), and CKD were predictive for in-hospital mortality risk.

**Keywords:** Abdominal Aortic Aneurysm; inflammatory biomarker; NLR; open repair; vascular surgery.

## KNOWLEDGE, ATTITUDES AND OPINIONS OF PHARMACEUTICAL STAFF REGARDING THE IMPLEMENTATION OF A QUIT SMOKING PROGRAM IN COMMUNITY PHARMACIES

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**Background:** The Brief Advice to Stop Smoking is an evidence-based intervention designed to increase quit attempts among patients who smoke. The feasibility of implementing this intervention in community pharmacies in Romania has not been explored.

**Objective:** The aim of this research was to evaluate the knowledge, attitudes and opinions of pharmaceutical staff in community pharmacies in Târgu Mureș regarding the development of a stop-smoking assistance program.

**Material and methods:** A cross-sectional, observational study was conducted on a convenience sample of pharmacists and pharmacist assistants, recruited through the Mures County College of Pharmacists. The respondents completed a 20-question online questionnaire. Descriptive statistics were calculated for the collected variables.

**Results:** The mean age of the 96 respondents was 36.6 years, 94.8% of them were females, and 82.3% were never smokers or ex-smokers. Respondents identified the health risks of smoking, such as causing addiction (99%), cancers (99%), chronic respiratory diseases (98%), myocardial infarction (99%), and stroke (98%). Nicotine replacement therapy, bupropion and varenicline were recognized as evidence based smoking cessation medications by 42 to 76% of the pharmacy staff. 60 to 75% of the respondents agreed or strongly agreed that pharmacy staff should regularly ask the customers about smoking status and encourage smokers to quit. More than 90% of the respondents thought they could dedicate at least 10 minutes of their daily working time to provide assistance to interested smokers. About 77% of the respondents expressed their interest to received regularly training regarding quit smoking methods.

**Conclusions:** Most of the community pharmacy staff included in the study sample had a fair level of knowledge regarding health risks of smoking and scientifically proven smoking cessation medication. Most of them were open to receive training and get involved in offering the Brief Advice to Stop Smoking.

**Keywords:** quit smoking, community pharmacies

## CASE REPORT: THE IMPORTANCE OF PERIODIC BLOOD TESTS IN DIAGNOSIS AND PROGNOSIS OF COLORECTAL CANCER.

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**Background:** Colorectal cancer is the third most diagnosed cancer in both men and women, meaning that it is one of the more widely recognized preventable cancers. The majority of colorectal malignancies are overwhelmingly attributable to adenocarcinoma.

**Objective:** This case presentation aims to emphasize the importance of early diagnosis and proper treatment in a case with colorectal adenocarcinoma.

**Material and methods:** We present the case of a 47 years-old patient with no hereditary component of colorectal cancer. In June 2020, a set of tests showed a hemoglobin of 10.2 g/dL and a hematocrit of 34.8 %, MCV, MCH, MCHC were lower than normal. The fecal occult blood test (FOBT) was positive. A colonoscopy followed by a native CT scan revealed a solid, intraluminal, asymmetric mass, which measured 65 mm in greatest diameter. After the histopathological exam, he was diagnosed with T3N0M0 colorectal adenocarcinoma, moderately differentiated (G2), located in the transversal colon, anterior of the splenic flexure. The tumoral markers AFP, CAE, CA 19-9 were in normal limits. In this case, the surgery was performed immediately, in July 2020, and consisted in the resection of the splenic flexure followed by an anastomosis of the remaining colon's segments. Next step was six cycles of chemotherapy treatment with capecitabine and oxaliplatin (CAPOX), which is the standard protocol for this type of cancer and its stage. He had no remarkable side effects during the chemotherapy.

**Results:** At the six months check-up, the native CT scan showed no sign of malignancy, and no tumors at the place of the colectomy. The level of hemoglobin increased at 13.3 g/dL and the other markers returned in normal limits.

**Conclusions:** Postoperatively, blood tests, radiology screening, and colonoscopy were performed annually. No signs of recurrent colorectal cancer were found during these tests.

**Keywords:** colorectal cancer, colectomy, anemia

## RISK FACTORS ASSOCIATED WITH RECURRENCE OF ATRIAL FIBRILLATION AFTER RADIOFREQUENCY ABLATION

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**Background:** Atrial fibrillation (AF) is the most common sustained arrhythmia. Rhythm control by isolating the pulmonary veins (PVI) is an increasingly used strategy. Although it is more effective compared to pharmacological rhythm control, the recurrence rate is estimated around 20-40%.

**Objective:** The purpose of the study is to identify risk factors associated with AF recurrences after radiofrequency (RF) isolation of pulmonary veins over 24 months follow up.

**Material and methods:** 42 patients undergoing the first ablation by PVI with radiofrequency between 2016-2021 were evaluated retrospectively, including 2 years of follow up. Depending on the recurrence of AF, two groups were created for 3, 6, 12 and 24 months intervals, comparing the demographic data, AF history, concomitant diseases, medication, echocardiographic and laboratory characteristics at the moment of procedure for each period of time. The t-student and Mann-Whitney tests were used to compare parametric and non-parametric quantitative variables, while the Chi-square or Fisher exact tests were used to analyze categorical data.

**Results:** Recurrences rate was 19%(8/42 ptx) at 3 months, 21.4%(9/42 ptx) at 6 months, and 35.7%(15/42 ptx) at 12 and 24 months. Stroke history was more common in groups with recurrences at 3(37.5%(3/8) vs. 5.9%(2/34); p=0.014), 6(44.4%(4/9) vs. 3.0%(1/33); p=0.005), 12 and 24 months(26.7%(4/15) vs. 3.7%(1/27); p=0.030). Glomerular filtration rate was lower in recurrences groups at 6(90±16 vs. 108±31; p=0.030), 12(92±17 vs. 110±33; p=0.049) and 24 months (91±18 vs. 111±33; p=0.039). Patients with recurrences at 12 and 24 months had an average of CHA<sub>2</sub>DS<sub>2</sub>-VASc scores (2.1±1.1 vs. 1.1±0.8; p=0.025); (2.1±1.2 vs. 1.4±0.8 p=0,025) and HAS-BLED scores (1.3±0.6 vs. 0.8±0.5; p=0.035); (1.3±0.7 vs. 0.8±0.6 p=0.035) higher than non-relapse patients.

**Conclusions:** Among risk factors associated with AF, previous stroke and decreased renal function were associated with early and late recurrence after radiofrequency PVI. While a higher CHA<sub>2</sub>DS<sub>2</sub>-VASc and HAS-BLED score was observed in patients with recurrence later than 12 months, emphasizing the role of AF risk factors treatment.

**Keywords:** Atrial fibrillation, ablation, recurrence, radiofrequency

## AN UNEXPECTED MALIGNANCY IN A KIDNEY TRANSPLANTATION PATIENT

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**Background:** Primary fallopian tube carcinoma (PFTC) is a very rare gynaecological malignancy associated with challenging diagnosis due to no specific features.

**Objective:** To emphasize the importance of considering PFTC as a differential diagnosis despite his low frequency.

**Material and methods:** We present a case of a 44-years old woman with a history of renal transplant, who was referred to gynaecological examination by her kidney transplantation team. Note that a 4 cm diameter left ovarian cyst was diagnosed by ultrasound for 5 years.

**Results:** The physical examination and pelvic ultrasound were unremarkable, except for the former left ovarian cyst, now with a diameter of 8 cm and a complex image with a mildly echogenic fluid. Because of this modified appearance of the ovarian cyst, further investigations were discussed. Less than 72 hours later the patient was admitted to the gynaecology ward because of severe abdominal pain with sudden onset, nausea and vomiting. Diagnosis of adnexal torsion was suspected, and laparotomy was performed, revealing a 720-degree left adnexal torsion. No other pathological feature was noted, and the transplanted kidney was seen on the right pelvic side, with a normal appearance. The patient was discharged on day 4 after a complication-free postoperative evolution.

Histopathologic evaluation of the torsioned adnexa revealed high-grade serous tubal adenocarcinoma infiltrating the tubal mucosa and muscularis and a 30 mm diameter benign ovarian cyst. The patient subsequently underwent laparotomy, total hysterectomy, pelvic and para-aortic lymph node debulking, omentectomy and appendectomy.

**Conclusions:** Our aim is to highlight the importance of considering PFTC among the differential diagnosis when women present with adnexal torsion because the symptoms of PFTC are not specific, and a missed or delayed diagnostic will have severe consequences.

**Keywords:** primary fallopian tube carcinoma, adnexal torsion, ovarian cyst, kidney transplantation

## BOTULINUM TOXIN IN AUGMENTATION OF THE ABDOMINAL WALL

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**Background:** In the case of complex incisional hernia, to prevent abdominal collapse, the abdominal wall must be augmented.

**Objective:** Our objective, in the case of complex incisional hernias, is tension-free closure of the abdominal wall using botulinum toxin.

**Material and methods:** 500 IU of botulinum toxin (Dysport™) are being prepared, which we will inject into the lateral abdominal muscles under ultrasound guidance. BTA is injected into 6 points in the lateral abdominal muscles (EO, IO, TA). Superior on the mid-clavicular line below the costal margin. Inferior on the mid-clavicular line above the anterior-superior iliac spine. The last injection points are at the junction of the anterior axillary line with the medio-umbilical line.

**Results:** After 6 weeks from the injection, surgical intervention can be performed to reconstruct the abdominal wall. After botulinum toxin injection, a number of advantages were observed, such as: reduction of abdominal muscle tension, medial advancement by approximately 3.5 cm on each side, reduction of the hernial sac by up to 6 cm, decrease in postoperative pain and consumption of analgesics. In the specialized literature, no adverse events related to the injection of botulinum toxin into the lateral abdominal muscles (such as bleeding, infection, allergic reaction) have been observed.

**Conclusions:** The use of botulinum toxin in the enlargement of the abdominal wall is a technique with an extremely high safety profile, effective, which offers a series of advantages, with no reported adverse effects. Unfortunately, the cost of the toxin is high, but in some countries, in the case of complex incisional hernia, it is settled by insurers.

**Keywords:** Complex incisional hernia, Botulinum toxin, Abdominal wall reconstruction, Echo-guided injection, Lateral abdominal muscles

## RETROMUSCULAR RIVES-STOPPA AND MALMÖ TYPE FLAPS IN RECURRENT COMPLEX INCISIONAL HERNIA

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**Background:** Incisional hernia is a pathology with increasing incidence and a high degree of complexity, especially in recurrent cases.

**Objective:** Our goal, in the case of complex incisional hernias, is the efficient and safe closure of the abdominal wall.

**Material and methods:** We treated a 63-year-old patient with a history of endometrioid adenocarcinoma, total hysterectomy with bilateral anexectomy, subumbilical incisional hernia (open-IPOM), which developed dehiscence and parietal abscess with incisional hernia recurrence. Intraoperatively, a parietal defect of 15/10 cm CC/LL (M3-4W3R1 - EHS incisional hernia classification), an intraperitoneal prosthesis (open-IP-OM), an adhesion syndrome developed especially in the right paramedian area. A muscle retraction of approximately 12 cm bilateral to the median line is observed.

**Results:** After the intraperitoneal release of the abdominal walls by complex adzeolysis, the impossibility of closing the fascial plane is observed due to the major retraction of the abdominal muscles. Release of the retromuscular plane is practiced (Rives-Stoppa technique). Due to the severe destruction of the peritoneum by the prosthesis (impossibility of using component separation) it is decided to use modified abdominal flaps (Malmö technique). By using the Rives-Stoppa technique combined with Malmö flaps, complete closure of the posterior fascial plane is achieved. A 27/20 cm polypropylene prosthesis is mounted retromuscularly. The anterior fascial plane is completely closed, using the abdominal flap. The surgical intervention ends with an intra-abdominal pressure of 9 cmH<sub>2</sub>O.

**Conclusions:** The Malmö flap technique is a safe, effective, standardized technique that provides complete closure of the fascial planes in complex cases where component separation is impossible. At the same time, it ensures the fitting of a prosthesis in the anatomical plan, reducing the risk of recurrence.

**Keywords:** Complex incisional hernia, Malmö abdominal flaps, abdominal reconstruction, Rives-Stoppa technique

## PEDIATRIC PATIENT WITH SURGICALLY CORRECTED CONGENITAL VALVULAR AORTIC STENOSIS

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**Background:** Aortic stenosis refers to a condition that results in obstruction of systemic blood flow caused by narrowing of the aortic valve opening. It accounts for 3-6 % of all congenital heart anomalies and occurs more frequently in males.

**Objective:** The aim of this paper is to present the case of a pediatric patient diagnosed with severe congenital valvular aortic stenosis on a background of bicuspid aortic valve.

**Material and methods:** We present the case of a 10-year-old male child diagnosed in infancy with valvular aortic stenosis on the background of bicuspid aortic valve and mild coarctation of the aorta. Serial echocardiographic evaluations highlight the progression of valvular aortic stenosis with progressive dilatation of the ascending aorta (Z score Petterson 3.3 SD – standard deviations - and Z score Cantinotti 3.4 SD), confirmed by advanced imagistic evaluations: thoracic Angio-CT. The patient was tested genetically for aortopathies, and all tests were negative.

**Results:** He was referred to the Cardiovascular surgery department for surgical intervention: aortic valve replacement. Postoperative evolution was uneventful regarding hemodynamic status, but complicated by repeated pleural effusions and a 3 cm paracardiac collection (hematoma).

**Conclusions:** The particularity of the case consists of the association of aortic valvular pathology with ascending aortic dilatation requiring continuous and careful monitoring.

**Keywords:** Aortic stenosis , Joubert syndrome, Congenital, Valvular

## SUCCESSFUL BALLOON ANGIOPLASTY FOR NATIVE COARCTATION OF THE AORTA: A PAEDIATRIC CASE REPORT

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**Background:** Coarctation of aorta (CoA) accounts for 6-8% of all congenital heart disease and represents a discrete narrowing in aorta causing obstruction of the blood flow. Various therapeutic options such as surgical treatment, transcatheter balloon angioplasty and transcatheter stent implantation are available. Treatment option should be individualized for each patient based on type of coarctation, severity of lesion, size of patient, and associated abnormalities. The percutaneous therapeutic procedures are the preferred treatment in native CoA.

**Objective:** We report a paediatric case that was successfully managed with balloon angioplasty for CoA.

**Material and methods:** A-3-year-old male child was diagnosed with severe CoA. The clinical exam revealed an ejection systolic murmur at the aortic area and the absence of peripheral pulses in his lower limbs. The systolic blood pressures were high, with a difference of more than 20mmHg between the upper and lower limbs. The echocardiographic exam showed a left-sided aortic arch, with severe CoA after the origin of the left subclavian artery, with a peak systolic gradient of 65mmHg. There was concentric left ventricle hypertrophy with good biventricular systolic and diastolic functions. Computed tomography confirmed the diagnosis of CoA. A percutaneous transluminal balloon angioplasty was performed with a Tyshak II 9mmx3cm balloon, with the reduction of the invasive gradient from 28mmHg to 17mmHg. There were no procedural complications.

**Results:** The postprocedural echocardiography revealed the reduction of the gradient across the coarcted segment by 40mmHg. The child is presently asymptomatic with mild hypertension requiring low doses of beta-blockers.

**Conclusions:** The correction of the CoA during early childhood prevents the development of systemic hypertension. Transthoracic echocardiography is important in both establishing the initial diagnosis and routine follow-up. Balloon angioplasty of discrete native CoA is effective and safe in children.

**Keywords:** aortic coarctation, balloon angioplasty, children

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## CARDIOVASCULAR MANIFESTATIONS IN WILLIAMS SYNDROME: A PAEDIATRIC CASE REPORT

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**Background:** Williams syndrome (WS) is a congenital, multisystemic disorder estimated to affect 1 in every 10000 live births. This autosomal dominant disorder is associated with deletion of multiple genes on the long arm of chromosome 7, and is characterized by structural cardiovascular abnormalities, 'elfin-like' facies, psychomotor retardation, and hypercalcemia. Cardiovascular abnormalities occur in almost 80% of the cases of WS, among these, supravalvular aortic stenosis (SVAS) has been found to be the most common cardiac anomaly.

**Objective:** We present a paediatric case diagnosed with WS in which cardiovascular manifestations consist of SVAS associated with coarctation of the aorta and diffuse narrowing of the aortic arch and descending aorta.

**Material and methods:** A-7-year-old girl child was diagnosed with WS based on her typical physical appearance. Fluorescent in situ hybridization analysis demonstrated hemizygoty at the elastin locus of 7q11.23. This patient presented to our department for cardiac evaluation presenting an ejection systolic murmur on physical examination. In addition, we noticed high systolic blood pressures. The echocardiography showed moderate left ventricular hypertrophy, SVAS with a maximum gradient of 55mmHg with narrowing of the ascending aorta above the level of the sinotubular junction (diameter 12.4mm, z score -3.75), associated with hypoplasia of the aortic arch (diameter 8mm, z score -2.5) and descending aorta, with narrowing of the aortic isthmus (diameter 3.5mm, z score -4.5). Cardiac computed tomography confirmed severe SVAS and coarctation of the aorta. A reduced diameter of the renal arteries was detected.

**Results:** Amlodipine treatment was initiated to control systolic blood pressure. In this case, the cardiovascular abnormalities associated with WS have indication for open cardiac surgery.

**Conclusions:** Williams syndrome is a complex, multisystemic disorder with significant cardiovascular manifestations. An accurate cardiovascular evaluation is recommended in all patients with WS.

**Keywords:** Williams syndrome, cardiovascular abnormalities, children

## HAIRY CELL LEUKEMIA- CASE REPORT

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**Background:** Hairy Cell Leukemia is a rare B-cell malignancy characterized by pancytopenia and variable infiltration with “hairy” lymphocytes. Understanding the biology of HCL and the pharmaceutical developments have made the disease responsive to treatment.

**Objective:** We propose to present the case of a patient who was diagnosed with Hairy Cell Leukemia.

**Material and methods:** We present the case of a 69-year-old man who was hospitalized with chronic fatigue and moderate pancytopenia. Abdominal ultrasound indicated hepatosplenomegaly. Immunophenotyping revealed 57% of lymphocytes with antigenic profile: CD19+, CD20+, CD5+(17%), CD22+, CD10-, CD200+, CD79b+, CD23-, FMC7(28%), LAIR1+, CD27-, CD81+(50%), -, CD103+(74%), CD25+, CD11c+, CD33+,KAPPA+ which confirmed the final diagnosis of hairy cell leukemia. Chemotherapeutic treatment was initiated with Cladribine. Anemia was corrected by repeated red blood cell administration. Agranulocytosis was treated with granulocyte colony growth factor.

**Results:** After chemotherapy and supportive treatment, the patient’s evolution is favorable. He was discharged and instructed to continue chronic treatment at home.

**Conclusions:** Although rare, hairy cell leukemia should be considered when encountering a male patient with symptoms such as chronic fatigue, pancytopenia, and splenomegaly.

**Keywords:** Leukemia, Pancytopenia, Splenomegaly, Lymphocytes

## REDO SURGERY FOR DIAPHYSEAL FEMUR FRACTURE INITIALLY TREATED WITH TITANIUM ELASTIC NAILS- REPORT OF 2 CASES

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**Background:** Surgical treatment of diaphyseal femur fractures (DFFs) in children is still debated. For children aged 5- 14 years, the use of titanium elastic nails (TENs) is accepted by all specialists. For children older than 14 years, there are several options, including TENs, plating with screws, external fixators, or intramedullary rods. Age, weight, and biological issues must be considered when choosing the appropriate surgical procedure. Complications, such as secondary displacement, malunion or non-union, and surgical site infection (SSI) can occur and require redo surgery.

**Objective:** We present 2 cases of DFFs initially treated with TENs who required redo surgery (plating with screws). The postoperative course was favorable with no complications.

**Material and methods:** Retrospective analysis of patients older than 14 years with DFFs admitted in a pediatric surgical department in the last 3 years. Patients’ demographics, clinical data, X-Ray or CT investigations, surgical procedures, and postoperative data were analyzed. For patients who initially underwent placement of TENs, we followed the postoperative course with periodical presentations in the clinic. Only patients who required the extraction of TENs and redo surgery were selected.

**Results:** We identified 2 (two) patients with DFFs who required the removal of TENs and redo surgery with plating and screws. Case 1: 14 year- old boy with right femur fracture treated with TENs. He had a favorable postoperative course but developed progressive anterior bowing of the femur and limb length discrepancy (LLD) after he started walking. Redo surgery consisted of removal of the TENs and femur fixation with a plate and screws. Case 2: A 15- year old girl with a left femur fracture treated with TENs. At 7 months after surgery, she presented with fracture nonunion and displacement. She also required redo surgery with the removal of the TENs and femur fixation with a plate and screws. Both patients had a postoperative cast for 30 days, after which PT (physiotherapy) was started and the patients were allowed to walk with crutches. They are still non-weight bearing (NWB) with favorable clinical and radiological courses.

**Conclusions:** The surgical treatment of DFFs in children older than 14 is still a challenge for the operating surgeon. Several technical options are available, and the final choice should be tailored to the patient’s age, weight, and biological status. Redo surgery for complications related to surgery or unsatisfactory results is a real possibility in this age group and type of femur fracture.

**Keywords:** diaphyseal femur fracture (DFF), children, TENs, plate and screws

## CENTRAL NEUROCYTOMA WITH CYSTIC DEGENERATION, A MIDLINE SHIFT TO THE RIGHT, AND MASS EFFECT

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**Background:** Central neurocytomas are rare benign tumors of neuroepithelial origin, characterized by their compressive nature and increased intracranial pressure. It is difficult to diagnose because of its histopathological resemblance to other tumors. The SWAN technique (susceptibility-weighted angiography) is used in identifying large and small vascular structures, as well as iron and calcium deposits, which help in targeting dystrophic changes and vascular abnormalities.

**Objective:** Our objective is to emphasize the importance of multiplanar analysis of SWAN images obtained in 3D rather than the usual axial plane images.

**Material and methods:** We present the case of a 17-year-old male who presented with a complaint of persistent headaches, fatigue, gait disorders, and behavioral changes. On the MRI, we observe a mass lesion with a midline shift of 3 centimeters to the right, resulting in a perilesional mass effect. After correctly staging the neoplastic lesion, it was determined that tumor resection surgery was the best treatment option. The particularity of the case is that the symptoms appeared only after the tumor had reached a considerable size.

**Results:** Using the multiplanar analysis of SWAN images obtained in 3D helped with tumor staging, which was essential in choosing an appropriate therapeutic approach.

**Conclusions:** Although we usually trace central neurocytomas early because of their symptoms, they can be asymptomatic until reaching a significant size. A correct tumor staging, and an accurate differential diagnosis are important in establishing a treatment.

**Keywords:** central neurocytoma, SWAN technique, multiplanar analysis, midline shift, tumor staging

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## SURGICAL TREATMENT OF TIBIAL TUBERCLE FRACTURES IN ADOLESCENT PATIENTS - REPORT OF 3 CASES

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**Background:** Tibial tubercle fractures (TTF) represent less than 1% of fractures in children. They occur in adolescents aged 12- 15 years, due to peculiar local biomechanical and bone growth factors. They are classified according to Ogden as grades 1 to 5. Treatment is surgical in grades 2- 5 with local debridement and fixation with screws. Open or arthroscopic procedures are equally used.

**Objective:** We present 3 cases TTFs in adolescents that were treated by open reduction and internal fixation (ORIF) with screws. The post-operative course was favorable with no complications.

**Material and methods:** Retrospective analysis of patients with TTF admitted in a pediatric surgical department in the last 5 years. Patients' demographics, clinical data, X-Ray or CT investigations, surgical or conservative treatment options, and postoperative data were analyzed. For patients who underwent surgery, we used an anterior approach to the fracture site, local inspection, and debridement. ORIF was performed using 3.5 mm screws inserted in an anterior-posterior direction. The quadriceps tendon was carefully inspected and sutured.

**Results:** We identified 4 (four) patients with TTFs who were treated in our department. Three of them had surgery, and 1 patient was treated conservatively (Ogden type- 1 fracture). ORIF was used in all surgical cases using 1 to 3 3.5 mm threaded screws, according to local intraoperative findings. All patients had a postoperative cast for 30 days, after which PT (physiotherapy) was started and the patients were allowed to walk with crutches and progressive WB (weight bearing). There were no postoperative complications in terms of infection, bleeding, compartment, or lack of consolidation. All patients are still under close follow-up.

**Conclusions:** TTFs are rare conditions in children (4 cases in 5 years in our experience). Preoperative radiological (X-Ray, CT Scan) assessment is required in order to get the diagnosis and surgical option. Surgery should be individualized to the type of fracture and associated soft tissue lesions. The prognosis is generally favorable but requires close surveillance and a PT rehabilitation program to prevent complications.

**Keywords:** tibial tubercle fracture (TTF), adolescents, surgery, ORIF,



## ST SEGMENT ELEVATION IN THE PRESENCE OF COMPLETE LEFT BUNDLE BRANCH BLOCK. THE IMPORTANCE OF THE “FORGOTTEN LEAD”

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**Background:** In the past, the aVR-lead has been frequently neglected in electrocardiogram (ECG) interpretation. Multiple studies proved that ST segment elevation of aVR is commonly seen in left main (LMCA) and left anterior descending artery (LAD) occlusion as well as in tripple-vessel coronary disease. For acute myocardial infarction diagnosis in patients with complete left bundle branch block (LBBB) the Smith-Modified Sgarbossa criteria might be helpful for ECG interpretation.

**Objective:** We will present the case of a 78-year-old woman, who presented in the emergency room with dyspnea and atypical chest pain. She had multiple comorbidities, being known with triple vessel disease treated with two vein grafts in coronary artery bypass grafti

**Material and methods:** Vital parameters were stable with blood pressure of 135/80mmHg and heart rate of 85bpm. Blood analysis revealed normal values of cardiac enzymes, but elevated NT-proBNP concentration. ECG showed dynamic changes with 2mm of ST elevation in aVR followed by diffuse ST depressions, which decreased after three hours. Echocardiography highlighted a left ventricle ejection fraction of 40%, global hypokinesia with apical rocking, moderate aortic stenosis and severe mitral regurgitation.

**Results:** Coronary angiography was conducted and revealed acute left main coronary artery (LMCA) occlusion, severe stenosis of one graft and three-vessel disease. Percutaneous coronary intervention (PCI) was performed with primary stents implantation on LMCA and the bypass graft. The patient was discharged after seven days without any symptoms, with a triple therapy including non-vitamin-K antagonist oral anticoagulant and dual antiplatelet therapy.

**Conclusions:** This case shows the importance of dynamic changes in the aVR-lead, especially in the presence of complete LBBB. ST elevation in the “forgotten lead” is not only proven to be a valuable tool in diagnosis but also in predicting patient prognosis.

**Keywords:** aVR, complete LBBB, Smith-Modified-Sgarbossa ECG criteria, LMCA occlusion, PCI

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## YOUNG PATIENT LUNG ADENOCARCINOMA: METASTATIC DISEASE OR SECOND TUMORAL PRIMITIVE LOCALIZATION?

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**Background:** Adenocarcinomas are the most common primary tumors arising in women, non-smokers

and individuals younger than 45 years. Non-small cell lung carcinoma with glandular differentiation and mucin production can be confused clinically and radiologically with the pulmonary consolidation that occurs in pneumonia.

**Objective:** Our aim was to highlight the importance of a correct diagnosis of any imagistic change in neoplastic patients, in the current trend of personalized medicine, in order to administer a correct etiological treatment.

**Material and methods:** A 41-year-old female patient, non-smoker, previously operated and chemo-treated of a primary adenocarcinoma of the cervix intestinal type-pT3bN1M1 and bilateral ovary tumors, presents to the Pneumology Clinic with the following complaints: left thoracic pain syndrome, productive cough, shortness of breath. Investigations were performed: laboratory tests, a spirometry, chest X-ray, computer tomography and bronchoscopy with biopsy.

**Results:** The bronchoscopy revealed an enlarged spur of the right upper lobe, with a modified mucosa, infiltrated by a proliferative process that originated from the upper lobe. A biopsy was taken at this level and the histopathological result describes a primitive lung adenocarcinoma. This infiltrative process narrows the lumens of the right superior lobe, according to the CT scan. Based on imaging and endobronchial elements, the staging of the case was T2N1M0. The patient developed right paraneoplastic pneumonia and mixt medium ventilatory dysfunction and was treated with antibiotics and symptomatic medication.

**Conclusions:** The study aims to analyze an aggressive new primitive pathology that may have been mistaken with a secondary metastatic tumor. Taking into account the patient's oncological antecedents, it is important to carefully evaluate any radiological change in order to detect early a possible relapse. In this case, the fact that the radiological and computer imaging was interpreted correctly, offers the possibility of an appropriate treatment.

**Keywords:** lung adenocarcinoma, metastatic, diagnostic, treatment

## MANAGEMENT OF NELSON'S SYNDROME - CASE PRESENTATION

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**Background:** Nelson's syndrome (NS) is a rare disorder characterised by an enlargement of a pre-existing ACTH-producing pituitary tumor that follows bilateral adrenalectomy, that typically leads to a dramatic increase in ACTH levels, skin hyperpigmentation and all of the symptoms and complications caused by the pituitary mass.

**Objective:** This case presentation aims to emphasize the struggles of managing patients with this condition, which can sometimes behave aggressively and require multiple therapeutic interventions.

**Material and methods:** We present the case of a 53 year-old woman. She was diagnosed with Cushing's disease and bilateral adrenal hyperplasia at the age of 18, for which she has undergone left radical adrenalectomy followed by right subtotal adrenalectomy 1 year later. Following the surgery she developed all typical features of Nelson Syndrome: an enlargement of the pituitary tumor, with headaches and ophthalmologic complications and rising acth levels. The patient eventually required pituitary-directed radiotherapy 2 years after the surgery.

**Results:** The patient is currently under adequate glucocorticoid and mineralocorticoid replacement therapy and presents yearly for follow-up with persistent headaches, dizziness, blurry vision, with the latest imaging investigations revealing a stable size of the pituitary tumor remnant of 9/6 mm, associated with ACTH levels that reach up to 2000pg/ml.

**Conclusions:** Despite being a rare complication nowadays thanks to advances in pituitary-focused therapies such as transsphenoidal neurosurgery, novel medical treatments and radiotherapy, there is a lack of consensus regarding the optimal management of this disorder, which is many times difficult to control and requires multiple aggressive therapeutic interventions, frequently leading to persistent symptomatology and high morbidity for patients.

**Keywords:** Nelson's syndrome, Cushing, Adrenalectomy, Radiotherapy, Pituitary tumor.

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## PREGNANCY IN NON-CLASSIC CONGENITAL ADRENAL HYPERPLASIA - CASE REPORT

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**Background:** Congenital adrenal hyperplasia (CAH) refers to a group of inherited autosomal recessive disorders characterized by inactivating mutations in genes encoding enzymes involved in steroidogenesis. Non-classic congenital adrenal hyperplasia (NCCAH) represents a less severe form of the disorder in which salt wasting is absent and women do not have ambiguous genitalia. NCCAH is also characterized by anovulatory cycles and/or high androgen concentrations, which may be easily misinterpreted as polycystic ovary syndrome (PCOS) and both can lead to a higher rate of infertility.

**Objective:** The purpose of this case report is to analyze the possibility of a young woman to carry a pregnancy while diagnosed with NCCAH.

**Material and methods:** Case report and review of the literature.

**Results:** We present a case where a 31 year old woman previously diagnosed with PCOS, infertility and eventually confirmed NCCAH, who has undergone multiple ovarian stimulations to increase fertility. After the treatment with Letrozole, Menotrophin, Choriogonadotropin alfa and in vitro fertilization, the patient succeeded to get pregnant but miscarried at 4 weeks. For the second attempt a new treatment plan with Letrozole, Metformin, Hydrocortisone and Dydrogesterone was introduced and after 6 months the patient got pregnant, but miscarried at 9 weeks.

**Conclusions:** In women with NCCAH who are planning a pregnancy, the increased infertility rates and higher miscarriage susceptibility must be taken into consideration in order to apply a personalized management plan.

**Keywords:** non-classic congenital adrenal hyperplasia, polycystic ovary syndrome, infertility.

## LUNG ADENOCARCINOMA CONFIRMED BY CYTOLOGICAL EXAMINATION FROM PLEURAL EFFUSION- DIAGNOSTIC CHALLENGE

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**Background:** Lung adenocarcinoma falls under the category of non-small cell lung cancer (NSCLC) and is responsible for 40% of all lung cancers, more often found in non-smoking female patients. The diagnostic process is complex and it includes imaging tests, laboratory tests, biopsies and cytological examination.

**Objective:** Our aim is to highlight the importance of the correlation between clinical information and performing biological and imaging investigations in neoplastic pathologies.

**Material and methods:** We present the case of a 71-year-old female patient known from her personal pathological history with essential hypertension and gastrointestinal comorbidities, admitted to the Pulmonology department initially as a consultation from the Gastroenterology department, which revealed a minimal right pleural effusion. The following investigations were performed: laboratory tests of the pleural effusion after a puncture was performed, chest X-ray, computer tomography and bronchoscopy with biopsy.

**Results:** The laboratory revealed elevated levels of proteins and LDH and absence of bacteria. Also, the cytological examination confirmed the presence of atypical cells with the immunohistochemical profile (TTF1) of adenocarcinoma. A fiber bronchoscopy was performed, but no direct signs of a proliferative process were revealed in the territories approached endoscopically. After this results, the CT scan revealed a tumor located in the inferior left pulmonary lobe with distal atelectasis, right-side pleural effusion, mediastinal adenopathies measuring 21/12 mm, liver and bone metastases. Due to the diagnostic of NSCLC with pleural, liver and bone metastasis, the patient exhibits an unfavorable diagnosis. The patient was admitted to the Oncology department for further investigations and treatment.

**Conclusions:** It is necessary to widen the panel of investigations in order to confirm the diagnosis when the primary tumor is not approachable. As revealed for our case, the cytological examination from the pleural fluid supported the diagnosis of neoplasia, outlining the particularity of this case.

**Keywords:** lung cancer, adenocarcinoma, pleural effusion, cytological examination

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## CASE REPORT: A SUCCESSFUL TREATMENT OF AN INVASIVE BREAST CARCINOMA

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**Background:** Invasive breast carcinoma of no special type (NST) is the most common type of invasive breast cancer. The normal breast is made of ducts that end in lobules, and once the carcinoma cells have grown and broken out of the ducts or lobules, it is called invasive or infiltrating carcinoma.

**Objective:** The main objective was the diagnosis and therapeutic management in a case with invasive ductal carcinoma with no hereditary component.

**Material and methods:** We admitted a 43-years-old woman, with no history of breast malignancies, who presented in April 2022 with a rapidly developing nodular formation in the lower lateral quadrant of the right breast. The mammogram revealed a relatively well demarcated opacity. After the biopsy and the histopathological exam, she was diagnosed with invasive breast carcinoma, moderately differentiated (G2). The tumor was associated with ductal carcinoma in situ (DCIS) with cribriform and solid architecture with comedonecrosis. The immunohistochemistry reactions revealed: ER-positive 3%, PR-negative, HER-2 positive, score 3+ and Ki67 50%. Afterwards, the patient received preoperative chemotherapy which has been successfully incorporated into the breast cancer treatment algorithm for smaller breast cancers that are less likely to have tumor-positive lymph nodes. After this, she had to do two cycles of chemotherapy with epirubicin and cyclophosphamide. In October 2022, the patient had a unilateral mastectomy of the right breast, with a good recovery.

**Results:** According to this case, with HER-2 positive and the favorable response to chemotherapy, the patient had a pathological complete response (PCR 0), with no lymph nodes involved. Microscopically, she presents a residual ductal carcinoma in situ (DCIS).

**Conclusions:** About 1 in 8 women are diagnosed with breast cancer during their lifetime. There is a good chance of recovery if it is detected at an early stage.

**Keywords:** breast cancer, HER-2 positive, pathological complete response

## MULTIDISCIPLINARY TEAM COMMUNICATION IN A IMMUNOCOMPROMISED PATIENT WITH TB - CASE REPORT

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**Background:** AIDS is a condition caused by HIV, which attacks and destroys the body's progressive immune system. This immunodepression increases the risk of co-infection with TB. Consequently untreated latent TB infection is more likely to progress.

**Objective:** Our goal is to highlight the importance of fast and efficient multidisciplinary communication for the diagnosis and treatment of TB in immunocompromised patients.

**Material and methods:** We present the case of a 33-year-old woman with AIDS C3, profoundly immunosuppressed (CD4 13 cells/mm<sup>3</sup>), also known with genital condylomatosis and cervical dysplasia, for which she was scheduled for surgery (procedure was postponed due to an initial severe anemic syndrome, corrected by MER transfusion) who presented a prolonged febrile syndrome. Initially, a left lobar superior pneumonia was considered as a diagnosis and was treated with Imipenem/Cilastatin and Ciprofloxacin but the evolution was not favorable. Along with the suspicion of pulmonary tuberculosis, a microscopic Acid Fast Bacillus test was performed.

**Results:** A positive microscopic BK sputum result is obtained and specific systemic therapy is initiated from with progressively increasing doses, according to the scheme. For confirming the diagnose, the 30 day Lowenstein culture was positive. The dose of antiretroviral therapy has been adjusted to the specific systemic therapy scheme, the administration of Doravirine is stopped and the dose of Dolutegravir is doubled due to drug interactions with Rifampicin. The patient's evolution after initiating the specific treatment was favorable, with improved symptoms without subjective accusations.

**Conclusions:** In most cases we will see opportunistic infections among AIDS patients. For this reason, we need good communication between medical teams to have a faster and more accurate diagnosis and treatment. Consequently, we must cultivate the right mindset in the professional environment where trust between teams is promoted and time is saved through the use of telecommunications or virtual conferences.

**Keywords:** multidisciplinary team, acquired immunodeficiency syndrome, tuberculosis

## BACTERIAL AND FUNGAL INFECTIONS IN COVID-19 PATIENTS ADMITTED TO THE ICU

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**Background:** COVID-19 is an infectious disease that can progress in some cases to severe or critical forms requiring intensive care. The presence of a bacterial or fungal infection could worsen the evolution of the COVID-19 disease.

**Objective:** The main objectives of this study were to investigate the incidence, risk factors, and outcome of bacterial and fungal infections.

**Material and methods:** A retrospective study was conducted on 342 patients with a positive RT-PCR SARS-CoV-2 infection test admitted to the ICU of County Clinical Hospital of Târgu Mureş from March 1, 2021 to March 31, 2022. In the study were analyzed demographic, clinical and microbiological data. The data were statistically analyzed using SPSS Statistics.

**Results:** 47% of patients had an infection (52% women and 48% men). 50% of infections were bacterial, 15% fungal and 35% were bacterial and fungal infections. The most frequent bacteria was *Acinetobacter* spp (26,48% of bacterial infections) and the most frequent fungus was *Candida albicans* (47.92% of fungal infections). The most frequent infections were respiratory superinfections (37%) and UTIs (28%). Female sex ( $p=0.0226$ ) and age  $\geq 50$  years ( $p=0.036322$ ) presented risk factors for infections. No statistically significant correlation was found between corticotherapy ( $p = 0.07$ ), immunomodulatory treatment with anakinra ( $p = 0.2114$ ) or tocilizumab ( $p = 0.7503$ ) and the development of an infection. Patients with bacterial or fungal infections had a higher risk of developing MSOF (OR 2.2199, 95 % CI 1.4393 - 3.4240,  $p=0.0003$ ) and death (OR 3.3244, 95 % CI 1.8935 - 5.8365,  $p<0.0001$ ) than those without infections.

**Conclusions:** The study found a high frequency of infections in COVID-19 patients admitted to the ICU. The presence of a bacterial or fungal infection led to a significant change in the evolution of the COVID-19 disease.

**Keywords:** COVID-19, ICU, infections

## APPROACHES OF SKIN GRAFTS FOR RADIAL FOREARM DONOR SITES: SPLIT THICKNESS SKIN GRAFTS (STSG) VERSUS FULL-THICKNESS SKIN GRAFTS (FTSG)

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**Background:** Split-thickness skin grafts (STSG) and Full-thickness skin grafts (FTSG) are one of the most used techniques for skin grafting. Both have specific advantages and disadvantages and the recommended use for each of them is different according to many factors, the most important ones being the donor site, the size of the defect and the cosmetic outcome.

**Objective:** The aim of this review is the comparison between the STSG technique and the FTSG technique in the coverage of radial forearm donor sites.

**Material and methods:** Comparative analysis of articles based on retrospective studies regarding STSG and FTSG coverage of radial forearm free flap donor sites.

**Results:** After monitoring 47 patients who underwent these procedures from 1997 to 2004, there was no statistically significant difference between the two groups regarding the incidence of tendon exposure or healing times at the donor and recipient site. There was also no statistical difference regarding the degree of skin graft loss after the two types of procedures. There was a slight difference in the number of wound dressings used, with 30% more dressings used in the case of Full-thickness skin grafts. The FTSG group reported better forearm scar aesthetics and better patient satisfaction. Furthermore, a study including 40 patients who had followed the two courses of treatment at least three months before examination (between January 2020 and January 2021), discovered two times more patients experiencing reduced sensory perception after STSG compared to FTSG and issues with wearing a wristwatch only for five STSG patients.

**Conclusions:** The FTSG seems to be the better fit for coverage of radial forearm free flap donor site because of the better outcomes, both functional and aesthetic-wise.

**Keywords:** Split-thickness skin grafts, sensory perception, donor site, scar

## HISTOPATHOLOGICAL DIAGNOSIS OF PULMONARY TUBERCULOSIS: A BRONCHOSCOPIC APPROACH

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**Background:** Endobronchial tuberculosis is defined as a chronic granulomatous infection of the tracheobronchial tree produced by *Mycobacterium tuberculosis*. Bronchial anthracofibrosis is a bronchoscopic disease associated with anthracosis on the bronchial mucosa in patients, without a history of smoking, that is paired with bronchial stenosis due to fibrosis.

**Objective:** Our aim is to illustrate the importance of bronchoscopy in diagnosing tuberculosis by presenting a case of anthracofibrosis and endobronchial stenosis.

**Material and methods:** We present a case of an 85 years old female who visited the ER complaining of a dry cough, weight loss, generalized weakness and fatigue, posterior chest pain, loss of appetite, and vertigo. Due to these symptoms, the patient underwent medical laboratory examinations, a chest X-ray and a CT scan. The CT examination revealed atelectasis in the middle lobe, condensation in the lingula, irregular bronchial stenosis, mediastinal adenopathies and multiple bilateral micronodules.

**Results:** The patient was admitted to the Pulmonology Clinic for specialized testing. Bronchoscopy examination revealed anthracosis and bronchial stenosis in the right upper lobe (segment 3), the middle lobe (segment 5), the left upper lobe (lingula) and the left lower lobe (segment 6). A biopsy was collected and the results revealed the presence of granulomas surrounded by histiocytes, epithelioid cells and multinucleated Langhans type giant cells with central caseous necrosis, specific for *M. Tuberculosis*. Although the microscopic outcome of the bronchial aspirate was initially negative, the antituberculosis medication was started following the histological result. The 30-day Lowenstein culture result was positive 1+.

**Conclusions:** The bronchoscopy is essential to make the definitive diagnosis in cases where the imagistic results raise the suspicion of neoplasia. The particularity of the case consists in the histopathological investigation of the bronchi, which allowed the diagnosis of tuberculosis to be confirmed in a patient in whom neither clinical nor imaging suspicion existed.

**Keywords:** bronchoscopy, tuberculosis, stenosis, anthracofibrosis

## THE UNIQUE HISTOLOGICAL APPEARANCE OF APOCRINE MIXED TUMORS CASE REPORT

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**Background:** The Apocrine mixed tumors are very rare lesions that can also be termed apocrine chondroid syringomas. The skin of the head and neck are the most common locations for these tumors to arise. The most commonly affected people are in the age range of 20-60 years.

**Objective:** This case aims to identify a very rare apocrine mixed tumor especially located on the shoulder.

**Material and methods:** A 54-year-old male patient presented himself to the Plastic Surgery Department of the Mureş County Hospital with a painless lesion located in the left shoulder. The clinical suspicion was of lipoma or dermatofibroma. His past medical history revealed no known diseases or any other cutaneous tumors. Excisional biopsy was performed and the sample was sent for examination to the Pathology Department of the Mureş County Hospital.

**Results:** The gross examination of the tumor revealed a nodular tumor (20\*10\*10 mm), colored yellow with whitish areas. Upon microscopical examination, using the usual Hematoxylin-Eosin (HE) stain, a benign tumor originating in the sweat glands was discovered. Tumor consisted of a proliferation of epithelial, myoepithelial and mesenchymal cells, without atypia. The epithelial component forms ducts, tubes and cysts. These structures are lined by two layers: the peripheral layer made by cuboidal or slightly flattened myoepithelial cells and the internal layer formed by luminal cell which show apocrine secretion. The cystic areas contain an inhomogeneous eosinophilic material. Small solid foci consisting mainly of epithelial cells are also observed. Immunohistochemistry (IHC) was performed and p63, CTK HMW showed the presence of myoepithelial cells while EMA marked the epithelium. The resection margins were not infiltrated by the tumor.

**Conclusions:** Apocrine mixed tumors are composed of both an epithelial and mesenchymal cells which form a well-circumscribed dermal mass. These entities are extremely rare in the skin and are considered by some authors the cutaneous form of the pleomorphic adenoma of the salivary glands.

**Keywords:** Apocrine Mixed Tumor, Fibroma, Immunohistochemistry, Biopsy

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## A SIMPLE MISTAKE THAT CAN BE FATAL-EXCESS OF MILK IN CHILD NUTRITION

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**Background:** Diversified alimentation is essential for small children since it prevents the loss of micronutrients necessary for the normal development of the organism. An excess of milk intake will create a nutritional imbalance that will seriously affect the homeostasis of the young child.

**Objective:** To raise awareness about the importance of a balanced diet with accent on maintaining a healthy level of milk intake.

**Material and methods:** We approached the case of 2 years and 2 months old male toddler who was presented to the family doctor for cough and mucous rhinorrhea. Observing the child's extreme pallidity, he was sent to the ER where, following blood tests, it was discovered that he had severe anemia (Hb=4,6 g/dl). The patient was hospitalized. We find out that, for the last period, his daily diet consisted of 1300-1500 ML of cow milk. To correct the anemic syndrome, the patient required red cell concentrate transfusion. Initially, his mother refuses the intervention, and the patient refuses other aliments besides milk. On the 4-th day of hospitalization, the mother accepts the transfusion.

**Results:** After the treatment with erythrocyte concentrate, the condition of the patient ameliorates significantly, observing an improvement in the biological parameters and in his behavior, becoming playful, responsive, and happy.

**Conclusions:** The excess of milk in alimentation will interfere with the appetite for other types of food, leading to nutritional imbalances and conditions such as anemia. In such cases, it is essential to promptly correct the deficiencies and reduce milk consumption by the amounts recommended for every age group.

**Keywords:** Severe anemia, milk excess, erythrocyte concentrate, diversified alimentation.

## CASE REPORT: MANAGEMENT OF RHEUMATOID ARTHRITIS AND ANKYLOSING SPONDYLITIS IN A YOUNG FEMALE PATIENT DURING PREGNANCY

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**Background:** Rheumatoid arthritis is a systemic autoimmune inflammatory disorder characterized by progressive symmetric joint destruction which affects about 0.5-1% of the population. Etiology is unknown, and risk factors include genetics, infectious agents, oral contraceptives (female > male), smoking, and education.

Ankylosing spondylitis is a chronic inflammatory disease leading to the stiffening or fusion of the spinal column ("bamboo spine" on CXR). Eyes and blood vessels can also be affected. Symptoms arise from the continuous replacement of collagen with fibrin, followed by ossification. AS affects about 1/1000 individuals, and carriers of the HLA-B27 are at the most significant risk of developing the disease.

**Objective:** The patient (26 y/o, female) presented with a history of lumbosciatica and present lumbar rachialgia, swelling of the left forefoot, and a single episode of anterior uveitis in 8/2018. Initial diagnosis of seropositive rheumatoid arthritis (affecting >10 articulations, >1 small articulation) associated with non-radiological spondyloarthropathy with extra-ocular manifestation and HLA-B27+ phenotype was made.

**Material and methods:** The initial therapy consisted of methotrexate (10mg/week) and folic acid. Additionally, Sulfasalazine (2g/day) and i.v Solumedrol (1g/every other day) was prescribed, and the patient was advised to avoid physical effort. After disease-modifying therapy proved ineffective, combination therapy with Tofacitinip (2x5mg/day, later 2x15mg/day) was initiated, which proved effective. In 5/2020 Tofacitinib therapy was stopped, as the patient wished to become pregnant, and changed to Certolizumab. The patient presented with an episode of uveitis and worsening of the musculoskeletal manifestations, so a final change to Adalimumab (40mg/2 weeks) was made.

**Results:** In 3/2022, the patient gave birth to a healthy child.

**Conclusions:** Even though it was challenging, it was possible to successfully manage her diseases and support her wish to become a mother while avoiding the toxic effects of JAK inhibitors on the unborn child. This proves how important it is to tailor therapies for the individual patient to have the best possible clinical outcome and increase the quality of life.

**Keywords:** Rheumatology, Rheumatoid Arthritis, Ankylosing spondylitis

## RECURRENT PERICARDITIS-PEDIATRIC CASE REPORT

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**Background:** Pericarditis represents the inflammation of the thin layer that surrounds the heart, the pericardium. When it comes to children, this pathology can appear in the context of an infection, its most common cause being viral or bacterial infections. Establishing the etiology of this disease is a complicated task in the clinical practice, especially when encountering recurrent forms.

**Objective:** To present the management of a pediatric case of recurrent pericarditis in a patient with Diabetes Mellitus type 1.

**Material and methods:** We report the case of an 8-year-old boy, known with Diabetes Mellitus type 1, who was admitted in the Pediatric department with interstitial Pneumonia. The echocardiography performed showed hyperechogenic mobile images, specific for purulent pericarditis. The patient was transferred to the Pediatric Cardiology department where he continued his antibiotic treatment with Vancomycin and Meronem. He also received corticotherapy with Dexamethasone in anti-inflammatory doses. Later on, the corticotherapy was replaced with NSAI due to the effects on the glycemic values.

His clinic and biological evolution was favorable, so, he has been discharged. 6 weeks later, the patient is brought into the emergency room accusing shortness of breath and posterior chest pain. The echocardiography performed showed pericardial effusion. Based on the clinical and paraclinical aspects, the diagnosis of recurrent pericarditis was established.

**Results:** In order to establish the etiology of the pericarditis, paraclinical investigations were performed. Hemoculture was negative and the pharyngeal exudate revealed that our patient is a carrier of *Staphylococcus aureus* methicillin-susceptible.

Pericardiocentesis was also performed and the tests were negative for bacteria, fungi and tuberculosis but the cellularity of the pericardial liquid extracted showed an increased number of neutrophils which leads us towards bacterial etiology.

**Conclusions:** Pericarditis is a difficult pathology to treat giving its various etiology and, more so, when it comes to patients with associated diseases.

**Keywords:** Pericarditis, Pneumonia, Diabetes Mellitus

## A COMMON CANCER WITH AN UNUSUAL LOCALIZATION: A CASE REPORT OF SQUAMOUS CELL CARCINOMA OF THE LEFT EARLOBE

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**Background:** Cutaneous squamous cell carcinoma (cSCC) is considered the second most frequent type of skin cancer, after basal cell carcinoma. cSCC is commonly associated with ultraviolet light exposure, but is uncommon to infiltrate the cartilage, therefore having an increased chance to metastasize.

**Objective:** This case report focuses on cSCC with an unusual localization - on the upper third of the left ear antihelix and the problems associated with this special site.

**Material and methods:** A 76-year-old man presented to the Plastic surgery Department with an ulcerated tumor mass measuring 19x14 mm in size, for which an excisional biopsy was performed, and the entire antihelix was sent to Pathology Department. Microscopically, pathologists noted an ulcerated squamous epithelium with abundant lymphocytic inflammatory infiltrates surrounding the lesion. The tumor was composed of large nests of atypical squamous cells with central keratin pearls. Although there were no signs of perivascular or perineural infiltration, the tumor invaded the auricular cartilage and the lateral excision margins.

**Results:** After the histopathological assessment, the patient was diagnosed with well-differentiated squamous cell carcinoma of the left ear, with positive surgical margins. On the second surgical intervention, the entire earlobe was removed.

**Conclusions:** Despite the high occurrence of cSCC in male patients over 60 with long ultraviolet light exposure, there is no precise treatment approach for advanced cases. Therefore, an early diagnosis is essential for adequate therapeutic management, as cartilage invasion is associated with a substantial risk for metastasis.

**Keywords:** squamous cell carcinoma, auricular cartilage

## COLONIC ADENOCARCINOMA REVEALED AFTER ANTICOAGULANT AND ANTIPLATELET TREATMENT- CASE REPORT

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**Background:** It is known that adenocarcinomas can develop from adenomatous polyps. It can be discovered by accident because the patients are usually asymptomatic, but bleeding and anemia may appear in some cases.

**Objective:** The purpose of this report is to present a case of a 78 years old patient with no other pathological antecedents than cardiac ones, who has been hospitalized at the cardiology department for acute pulmonary edema, chest pain, irregular heart rhythm and severe arterial hypertension.

**Material and methods:** The paraclinical investigations reveal the diagnosis of inferior STEMI Killip III, atrial fibrillation with high ventricular rate, and dilated ischemic cardiomyopathy with reduced ejection fraction. After stabilization a coronary angiography was performed that revealed permeable stents at LAD and RCA level, and severe de novo stenosis at RCA segment III level, which was revascularized by DES implantation. The patient was discharged with maximal anti-ischemic treatment but after a few days, the evolution was complicated by rectal bleedings in small quantities. The anticoagulant dose was initially reduced with a favorable result and a period of 2-3 days free of bleeding, but after a week he developed a major gastrointestinal bleeding with a decrease in hemoglobin level by 2 points. It was decided to perform a colonoscopy.

**Results:** At the level of sigmoid colon the exam revealed multiple large diverticula with hyperemia expressed peridiverticularly and in the middle portion was found a sessile and friable formation of 2-3 cm. A biopsy was performed and the histopathological diagnosis was moderate histologically differentiated colonic adenocarcinoma without lymphovascular invasion or perineural infiltration.

**Conclusions:** The colonic polyp, turning out to be a colonic adenocarcinoma, was revealed only after an inferior tract bleeding occurred in the context of antiplatelet and anticoagulant treatment.

**Keywords:** colonic adenocarcinoma, atrial fibrillation, myocardial infarction, antischemic treatment



## A JOURNEY FROM ASYMPTOMATIC TO BY-PASS SURGERY – CASE REPORT

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**Background:** The coronary heart disease represents the inability of the coronary arteries to deliver blood to the myocardial cells. The most common symptoms are: angina, pain in the arms or shoulder, breathlessness and light-headedness.

**Objective:** The aim of this report is to approach a case of a 63-old man who presented at the Emergency Department(ED) accusing nothing more but dizziness, without personal pathological antecedents of cardiovascular disease.

**Material and methods:** At the ED the patient presented hemodynamic instability with low blood pressure(70/40 mmHG). The EKG revealed sustained ventricular tachycardia that required 3 synchronized cardioversions in order to obtain the sinus rhythm. The EKG recorded anterolateral ST segment depression and ST elevation in avR and the enzymes of myocardial necrosis were elevated.. The echocardiography showed a dilated left ventricle with severely reduced ejection fraction (22%), global hypokinesia, moderate mitral insufficiency grade and severe tricuspid insufficiency. An invasive coronary angiography was performed which disclosed ischemic multivessel coronary artery disease: a stenosis of 60-70% in the left main, severe serial stenosis in left anterior descending artery(LAD), subocclusive stenosis in circumflex artery(ACx) and first obtuse marginal artery(OM1).

The carotid artery Doppler exam revealed a stenosis of 80-90% in the left internal carotid artery. The patient is neurologically asymptomatic, and the cerebral computed tomography did not detect any pathological elements.

**Results:** The patient was referred to the Cardiovascular Surgery Department and a triple bypass surgery: left internal mammary artery-LAD, great saphenous vein(SVG)-ACx and SVG-OM1. Regarding the carotid stenosis and lack of symptoms, the patient will perform a cerebral magnetic resonance angiography and carotid endarterectomy if needed.

**Conclusions:** The particularity of this case is that despite the presence of multivessel artery disease the patient did not present any typical symptoms such as chest pain, neither before the admission in the hospital, nor during the episode of ventricular tachycardia.

**Keywords:** asymptomatic, ventricular tachycardia, ischemic cardiomyopathy, by-pass surgery.

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## THE ROLE OF HISTOPATHOLOGICAL ASSESSMENT IN SUPERFICIAL SPREADING MELANOMA DEVELOPED ON A PRE-EXISTENT NEVUS

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**Background:** Melanoma is a tumor arising from the malignant transformation of the melanocytes with the highest mortality rate of all skin cancers. Melanoma can occur de novo or develop on a pre-existent nevus, ultraviolet exposure being the most consistent etiological factor.

**Objective:** The objective of this case report is to emphasize the importance of histological examination in the diagnosis of cutaneous melanoma and the role of immunohistochemistry in histopathological assessment.

**Material and methods:** A 48-year-old female patient was admitted to the Plastic surgery Department with a brown-grayish nodular tumor of 35x16 mm on the left ankle. An excisional biopsy of the tumor was performed. The microscopic examination revealed a superficial melanoma, derived from a melanocytic nevus, consisting of atypical epithelioid cells. The mitotic rate was 7 mitoses/10 HPF, brisk tumor-infiltrating lymphocytes were present and the growth phase was horizontal and vertical. The pagetoid spread of the melanocytes was also observed. Immunohistochemistry demonstrated the tumor cell population was positive for S100, SOX-10, Melan A/MART-1, and HMB45. Ki-67 proliferation index was expressed in 5% of the tumor cells.

**Results:** The tumor has been diagnosed as a superficial spreading melanoma developed from a melanocytic nevus, stage pT2aNxMx, according to AJCC, 8th edition. The maximum thickness was 1.6 mm (Breslow thickness), and the level of invasion was III (Clark Level) meaning a tumor invasion till the papillary-reticular dermal interface.

**Conclusions:** The histopathological examination is the most important tool in the diagnosis and prognosis of cutaneous melanoma. In addition to traditional hematoxylin and eosin examination immunohistochemistry is necessary for the differential diagnosis with other malignancies mimicking melanoma. The patient was directed for further genetic investigations - BRAF and NRAS mutations, and appropriate oncological treatment.

**Keywords:** Cutaneous melanoma, immunohistochemistry, nevus

## EVOLUTIVE AND THERAPEUTIC PARTICULARITIES OF ENDOGENOUS PSYCHOSES

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**Background:** The evolution of endogenous psychoses was modified secondary to the emergence of a series of factors which influence the psychopathological dynamic, the efficiency and compliance of the therapeutic strategies.

**Objective:** This report aims to highlight the advancement in the accuracy of periodic evaluation and efficiency of treatment in endogenous psychoses with prolonged evolution, as well as diversifying the therapeutic offer by involving the patient's family and their social entourage.

**Material and methods:** The proposed objectives are exemplified by the phenomenological approach of a case of schizophrenic psychosis. The approach to the case is carried out through psychiatric evaluation, clinical examination, as well by applying psychometric tests.

**Results:** The patient meets the diagnostic criteria for the endogenous type vulnerability and other psychopathological syndromes assigned to schizophrenic psychoses. The complex therapeutic program that was applied includes pharmacotherapy, specific psychotherapeutic techniques, and social therapy. Moreover, the process was facilitated and completed by increased patient compliance. This way, long-term follow-up of the patient's pathology was made possible through prompt interventions in periods of increased psychopathogenic risk or in the phases of exacerbation of the symptoms. Interventions were conducted to target familial, professional, and social roles.

**Conclusions:** Through the above-mentioned steps persistent clinical and professional improvement was achieved, all of which created the needed conditions for reconstructing the patient's personal life and professional status, along with proper social reintegration.

**Keywords:** psychopathology, schizophrenia, social and professional reintegration, therapeutic advancement

## LOCALLY RIGHT ADVANCED ANGULO-COLIC NEOPLASM WITH INVASION OF THE CEPHALO PANCREAS AND IN THE MESENTERIC-PORTAL VENOUS SHAFT

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**Background:** Colorectal adenocarcinoma is the third most common type of cancer and it can be a preventable disease if detected in its early stages. If not, it can lead to certain complications, as we presented below.

**Objective:** Our objective is to significantly improve our patient's quality of life through radical surgical resection as a first therapeutical stage.

**Material and methods:** We present the case of a 58 years old man, known with lower leg and left foot hypotrophy that debuted in childhood. The patient presents with lower gastrointestinal bleeding exteriorized by haematochezia. During a follow-up endoscopy, a right angulo-colic neoplasm was found, neoplasm which caused secondary anemia. The biopsy revealed it was an adenocarcinoma. Perioperative, the invasion of the cephalo-pancreas and of the mesenteric-portal venous shaft was discovered. The procedure consisted of right radical extended colectomy with lymphoganglionic dissection and complete mesocolic excision en bloc with "artery first" cephalic duodenopancreatectomy monobloc with the invaded mesenteric-portal venous shaft and with the preservation of the portal venous confluence and with the termino-lateral anastomosis of the mesenteric-portal venous shaft without graft interposition. Gastrointestinal reconstruction was made possible by termino-lateral wirsungo-jejunal, hepatico-jejunal, and Hoffmeister-Finsterer gastro-jejunal anastomoses, followed by latero-lateral isoperistaltic ileotransverse anastomosis.

**Results:** On a surgical level, the postoperative evolution was favorable, however a cardiovascular insufficiency with malign rhythm disorders and hypotension has made it tougher for the patient to fully recover, as he needed mechanical ventilation for 10 days. A year after the surgery, the cancer has not yet reappeared.

**Conclusions:** Management of postoperative complications can be favorable for improved life quality after successfully overcoming intraoperative obstacles.

**Keywords:** angulo-colic neoplasm, radical colectomy, duodenopancreatectomy, gastrointestinal reconstruction, cardiovascular insufficiency

## DECISIONAL MANAGEMENT IN ACUTE POSTPARTUM BACTERIAL ENDOCARDITIS – CASE REPORT

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**Background:** Infective endocarditis is a pathology with an increased rate of mortality and complications, and the exact role of early surgical intervention is controversial.

**Objective:** To assess the risks and outcome of early surgical intervention in case of an infective endocarditis.

**Material and methods:** 27-year-old patient, postpartum female on the 14th day, having been diagnosed for 7 days with mitral valve endocarditis, which causes a grade III mitral regurgitation due to rupture of cords with multiple hanging vegetations at the level of the mitral valve apparatus determined by "Enterococcus Faecalis" with two positive blood cultures under targeted antibiotic treatment with a recent postpartum history of "Clostridium difficile" with prolonged continuous hospitalization, being known to have congenital megacolon, and subclinical hypothyroidism. It presents in the last 24 hours hemodynamic degradation rapidly – progressive toward cardiogenic shock, associating splenic infarction with septic shock in its early stage of disseminated intravascular coagulation, and the echocardiographic evaluation reveals grade IV mitral insufficiency with inferior cava vein with sketched collapse and high probability of pulmonary hypertension, being urgently transferred for surgical treatment. Mitral valve replacement is performed with biological prosthesis "Biointegral" no. 27 with subsequent progressive favorable evolution being discharged 12 days after surgery with two negative blood cultures, and the continuation of "per os" antibiotic therapy according to the antibiogram for 3 weeks after discharge, without infectious recurrences, and at the annual evaluation the patient does not have chronic cardiovascular medication.

**Results:** Surgical risk assessment and the determination of individual prognosis can be performed by four main factors: the characteristics of the patient, the presence or absence of cardiac and non-cardiac complications, the causative organism and the echocardiographic aspects and should be used to establish the most appropriate initial therapeutic management.

**Conclusions:** The overall benefit of the surgical intervention should be compared with that of the surgical risk, so each case must be individualized, and the factors associated with a high risk of complications must be identified early to determine the optimal operative moment.

**Keywords:** Infective endocarditis, mitral valve, postpartum



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