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**XXIII CONGRESSO
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(CAM)**

XXIII CONGRESSO ACADÊMICO DE MEDICINA (CAM)

A Faculdade de Ciências Médicas de Minas Gerais, fundada no ano de 1950, é reconhecida entre as mais prestigiadas instituições de ensino na área de saúde do país. Ao longo da jornada de 70 anos da instituição, marcada pela busca de inovação pedagógica e científica, destaca-se a criação, há 23 anos, do Congresso Acadêmico de Medicina (CAM). Cercado por um projeto cujo principal objetivo é a promoção do conhecimento e o estímulo à pesquisa em saúde, o CAM é um evento organizado integralmente por um seleto grupo de acadêmicos de medicina voluntários. Neste ano de 2024, o congresso chega a sua 23ª edição, mantendo a tradição do maior congresso acadêmico da Faculdade Ciências Médicas de Minas Gerais (FCM-MG), trazendo inovação, ciência, informação e medicina baseada em evidências.

Nos dias 17 e 18 de setembro o Congresso recebeu no Teatro Feluma cerca de 100 participantes, entre ouvintes, apresentadores de trabalho e palestrantes. O XXIII CAM foi marcado por palestras inéditas sobre internacionalização da carreira médica, mesa redonda sobre inovações na medicina com professores integrantes do Setor de Inovação da Feluma, palestras atuais em neurocirurgia e cardiologia, e muito mais. O evento contou com muita troca de informação em saúde, atualização e oportunidade de apresentações científicas para os acadêmicos. Espera-se em 2025, uma nova edição, ainda mais completa, possivelmente com cursos e workshops, mesas de discussão e ainda mais trocas.

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CASE REPORT

Ossification of the caroticoclinoid ligament found in a cadaveric specimen: a case report

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ABSTRACT

Introduction: Intracranial ligaments stabilize and protect parts of the brain in the cranial cavity. One example is the caroticoclinoid ligament, which connects the anterior and middle clinoid processes of the sphenoid bone. In this sense, a rare anatomical variation can occur when this structure is ossified, forming a caroticoclinoid foramen, which has clinical and surgical relevance due to its relationship with the internal carotid artery (ICA). The prevalence is higher in individuals over 60 years old. **Objective:** To report anatomical variation found in a skull at a medical laboratory in Belo Horizonte-MG, and its clinical relevance. **Methods:** A case report was carried out based on the analysis of an anatomical skull specimen in a laboratory in Belo Horizonte, and photographic records were taken. Also, a literature review was carried out in the PubMed and Scielo databases, selecting articles from the last 5 years, using the terms “caroticoclinoid ligament” and “ossification”. Observational and descriptive analyses were carried out to study the structure. **Results:** The sphenoid bone has the anterior clinoid process, which connects to the middle clinoid process via the caroticoclinoid ligament. Sometimes, this ligament can undergo a pathological transformation that leads to fibrous tissue being replaced by bone. The pathogenesis of this variation includes multifactorial factors such as hormonal influence, angiogenesis, aging, genetic disorders and trauma. It is a relevant alteration in medical practice, as it can lead to compression of structures such as the ICA and cranial nerves, as well as causing changes in blood flow. **Conclusion:** The occurrence of this ossification has clinical and surgical relevance. Considering that there is no description of this foramen in standard anatomy textbooks, the importance of this region for neurosurgical practice is clear. Therefore, by reporting anatomical findings in skulls, it is possible to focus on this topic in the academic agenda.

Keywords: Anatomic Variation; Clinical Relevance; Ligaments; Skull.

REVIEW ABSTRACT

Challenges and therapeutic approaches related to intraoperative thromboembolic complications in liver transplantation: a systematic review

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ABSTRACT

Introduction: Orthotopic liver transplantation (OLT) can encounter intraoperative complications due to the emergence of thromboembolism from multifactorial causes. Coagulopathies resulting from liver failure, vascular manipulations, and cardiovascular collapse during the procedure can contribute to this scenario, posing inherent challenges to OLT. Thus, the choice of therapeutic approaches in clinical management varies and depends on factors such as thrombus size, location, hemodynamic status, and the risk of post-treatment coagulopathic bleeding. **Objective:** To discuss intraoperative thromboembolic complications related to liver transplants, the risk factors, and the challenges of clinical management in treating these conditions. **Methods:** A literature review was conducted using the PubMed database with the descriptors “Liver transplantation” AND “Complications” AND “Thromboembolism,” yielding 89 articles from the last 5 years, of which 7 were selected based on title, abstract, and pre-established criteria. Results: Intracardiac thromboembolism (ICT) during liver transplantation is a rare but extremely severe complication with high mortality rates, ranging from 30% to 68%. ICT tends to occur during the reperfusion phase of the transplant but can also arise in the prehepatic and anhepatic phases. Risk factors include the use of antifibrinolytics, surgical techniques involving vena cava clamping, and hypercoagulable states. Thromboelastography often reveals hypercoagulability in these patients, even when conventional tests indicate hypocoagulability. The efficacy of therapeutic interventions remains uncertain, with variable outcomes. **Conclusion:** Many factors can cause complications during OLT. Monitoring with transesophageal echocardiography and thromboelastography during the procedure enables differential diagnosis of thromboembolism, improving patient prognosis. Further studies are needed to elucidate the best therapeutic approach for thromboembolic complications, but the use of low-dose thrombolytics, although increasing the risk of bleeding, has proven effective in reducing mortality rates.

Keywords: Liver; Transplantation; Thromboembolism.

REVIEW ABSTRACT

Hormone replacement therapy in postmenopause and the development of malignant endometrial neoplasms

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ABSTRACT

Introduction: Hormone replacement therapy (HRT) in postmenopausal women is widely recognized as an effective therapeutic intervention, used both for the management of vasomotor and urogenital symptoms and for the prevention of osteoporosis, cardiovascular diseases, and dementia in elderly women. However, it is essential to emphasize that HRT is not without risks. Among the most significant adverse effects is the increased risk of developing endometrial malignancies. **Objective:** To evaluate the risks associated with the development of endometrial malignant neoplasms resulting from the use of HRT. **Methods:** A systematic review was conducted based on a search for scientific articles in the MEDLINE and Scielo databases, using the descriptors: “hormone replacement therapy”, “endometrial malignant neoplasms” and “postmenopausal”. Original articles, observational studies, and prospective cohort studies published between 2019 and 2024, while articles with methodological inconsistencies, samples with representativeness limitations, and review articles were excluded. **Results:** Of the seven articles selected, it was demonstrated that prolonged and isolated use of HRT during postmenopausal women can stimulate the growth of endometrial cells, resulting in hyperplasia. This cellular adaptation is characterized by abnormal thickening of the uterine lining, which can progress to malignant neoplasms. In addition, estrogen can exacerbate the proliferation of cancer cells, since endometrial neoplasms often have receptors for this hormone, contributing significantly to the development and progression of cancer. **Conclusion:** Hormone therapy can provide several benefits; however, it is associated with potential adverse effects. In order for an informed decision about the adoption of HRT in postmenopausal times to be made, it is essential to carry out a thorough analysis during the collection of clinical history, aiming to mitigate endometrial health risks. In addition, it is essential that the patient is informed about possible adversities related to the treatment before it begins.

Keywords: Hormone replacement therapy; Endometrial neoplasms; Postmenopause.

REVIEW ABSTRACT

The association between postpartum hemorrhage and placental accreta spectrum: a systematic review

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ABSTRACT

Introduction: Placental adhesion disorder (PAD) is frequently diagnosed in the postpartum period, as well as generally associated with uterine atony and hemorrhage. This condition involves the adherence of placental villi to the myometrium, without invasion - placenta accreta; with invasion - placenta increta; or reaching the serosa and adjacent organs - placenta percreta. Abnormal implantation is an important risk factor for maternal morbidity and mortality, often requiring surgical intervention such as cesarean section and/or hysterectomy. The risk of postpartum hemorrhage is high, often requiring significant blood transfusions. **Objective:** To identify in the literature whether there is an association between puerperal hemorrhage in pregnant women with and without PAD. **Methods:** This systematic review was carried out in the PubMed and BVS databases between July and August 2024, covering studies published from 2019 to 2024. Studies outside this period, duplicates, incomplete studies, with inconsistent data or that did not address the proposed theme were excluded. The research followed the PICO question: "Is there an association between postpartum hemorrhage in pregnant women with placental accreta compared to pregnant women without this condition?" In total, 23 articles were selected. Results: The correlation between PAD and postpartum hemorrhage is widely documented in the literature, with the increasing incidence of cesarean sections increasing the risk of placenta accreta and puerperal hemorrhage. In this context, pregnant women with PAD are twice as likely to need transfusions of blood products, presenting greater hemorrhagic morbidity compared to those without PAD. Therefore, hysterectomies are often performed to control bleeding, although in some cases hemostasis can be achieved without surgery. **Conclusion:** Postpartum hemorrhage in pregnant women with PAD generally requires more blood transfusions than in women without this condition. Abnormal implantation of the placenta can cause massive hemorrhage, organ failure and even death, highlighting the need for an integrated approach in the diagnosis and treatment of complications.

Keywords: Postpartum hemorrhage; Placenta Accreta; Maternal Mortality; Brazil.

CASE REPORT

Cerebral hemangiopericytoma: the importance of a multidisciplinary approach

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ABSTRACT

Introduction: Intracranial hemangiopericytoma is a rare and aggressive mesenchymal tumor, accounting for less than 1% of all Central Nervous System (CNS). It arises from the uncontrolled proliferation of pericytic cells and exhibits a high recurrence rate. Considering that microsurgery is the only proven effective approach and given the controversy surrounding radiation therapy and chemotherapy (RT and CT) treatments, it becomes crucial to discuss the introduction of integrated multidisciplinary care and palliative care in cases like this. **Objective:** This work aims to highlight the positive impact of multidisciplinary care in defining Palliative Care for patients with rare, degenerative, and progressive diseases, such as the case discussed. **Methods:** The information contained in this case description was obtained through a review of the medical record, interviews with family members, and a literature review. **Results:** This concerns a 71-year-old male patient diagnosed with cerebral hemangiopericytoma since 2014. Four surgeries were performed to resect the tumor, combined with adjuvant radiotherapy. He was admitted to a transitional care hospital after several prolonged hospitalizations, resulting in the loss of functionality, autonomy, and quality of life. Upon admission, a care plan was initiated, focusing on stimulation by a transdisciplinary team to regain some degree of autonomy. In discussions with the family, the importance of palliative care in the face of clinical refractoriness and a poor prognosis was emphasized, along with the need for continuous support for the family due to the patient's inability to carry out daily activities. **Conclusion:** Due to its rare nature and considerable variability in aggressiveness, managing hemangiopericytoma can be complex, requiring a multidisciplinary approach and ongoing medical supervision. This aims to provide a better quality of life for affected patients.

Keywords: Hemangiopericytoma; Integrative Palliative Care; Patient Care Team; Transitional Care.

CASE REPORT

Malignant Phyllode Tumor: a case report

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RESUMO

Introduction: Phyllodes tumor of the breast (PTB) is a rare type of breast neoplasm, representing less than 1% of all breast tumors. It has variable biological behavior, ranging from benign to malignant. **Objectives:** Present to the scientific community through a case report the diagnosis of PTB of the breast. Considering its rarity, high recurrence rate, low survival rate, and the lack of consensus related to the ideal treatment, cases of PTB must be discussed. **Methods:** Describe the clinical case through prontuary analysis and conduct a literature review on this pathology. Written informed consent was obtained. **Results:** A 37-year-old female patient, without relevant risk factors, sought the mastology service in a hospital in Belo Horizonte due to a palpable nodule in the union of the upper quadrants of the right breast. Mammography showed focal asymmetry with partial attenuation after localized compression; ultrasonography (USG) demonstrated a solid, hypoechoic, circumscribed nodule measuring 3 cm. Core biopsy pointed fibroadenoma. During a 6-month control, the lesion showed significant growth on USG (46.3x24.0x42.8 mm) and quadrantectomy was indicated. Pathological anatomy demonstrated an atypical fusocellular proliferative lesion associated with extensive stromal overgrowth, suggesting PTB, with a free surgical margin measuring 10 mm. Immunohistochemistry confirmed the diagnosis. The oncology team opted for chemotherapy with doxorubicin and ifosfamide, and radiotherapy was administered 42.5 Gy/16 fractions plus a boost of 7.98 Gy/3 fractions. Genetic analysis did not find pathogenic, likely pathogenic, or variants of uncertain significance in the BRCA1 and BRCA2 genes. The patient has been followed up multidisciplinary and is currently disease-free. **Conclusions:** Specialized follow-up and biopsy of nodules that show significant growth, even with radiological characteristics of benignity, are required for diagnosis and treatment, as described in the present case.

Keywords: Phyllodes tumor; Breast neoplasms; Segmental mastectomy.

REVIEW ABSTRACT

The effectiveness of hydrochloride nalmefene in reversing opioid overdose compared to naloxone: a systematic review

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ABSTRACT

Introduction: Synthetic illicit opioids, due to their high potency and lipophilicity, reduce the intervention window and increase the risk of an overdose death. Naloxone, a competitive antagonist of opioid receptors, is the main drug administered in emergency cases. However, recent comparative studies reveal that Nalmefene, a selective agonist of the μ and δ opioid receptors and a partial agonist at the κ receptor, has a faster onset of action and is therefore potentially more effective. **Objective:** To evaluate whether the use of Nalmefene Hydrochloride is more effective than Naloxone in reversing opioid-induced overdose. **Methods:** A systematic review was carried out from a selection of 4 articles sourced from PubMed and Scielo databases, using the keywords “opioid epidemic,” “narcotic antagonists,” and “opiate overdose.” The inclusion criteria involved publications from the past 4 years relevant to the topic. Additionally, literature reviews and articles with methodological inconsistencies were excluded. **Results:** Recent studies reveal that Nalmefene, especially intranasal, has a faster onset of action and greater efficacy compared to Naloxone. Furthermore, compared to the same doses of Naloxone, Nalmefene demonstrated greater reductions in the incidence of cardiorespiratory arrest. **Conclusion:** Nalmefene is a potential alternative to Naloxone, showing greater effectiveness in the studied cases. However, further evidence is still needed for Nalmefene to be established as the primary medication for opioid overdose.

Keywords: Opioid epidemic; Narcotic antagonist; Opiate overdose.

CASE REPORT

Wolff-Parkinson-White syndrome: a case report

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ABSTRACT

Introduction: Wolff-Parkinson-White (WPW) syndrome is a congenital cardiac pre-excitation condition characterized by a rare additional abnormal accessory pathway. On the Electrocardiogram (ECG), a short PR interval and wide QRS and delta wave are identified during sinus rhythm. **Objective:** To report the case of a patient diagnosed with WPW syndrome who developed complications after a catheter ablation procedure. **Methods:** We report the case of a male patient, currently 38 years old, who sought outpatient care in 2008 with complaints of dizziness and palpitations. Initial examinations, including ECG and 24-hour Holter monitoring, revealed a widened QRS complex, shortened PR interval, and arrhythmias. The diagnosis of WPW syndrome was confirmed and the patient underwent a catheter ablation procedure. The method included a description of the clinical presentation, diagnostic tests, the ablation procedure and subsequent complications. **Results:** The patient, after the initial ablation procedure, developed complications of Left Bundle Branch Block (LBBB) and Supraventricular Tachycardia. Despite treatment with Sotalol 160 mg 2x a day and continuous monitoring, he presented sporadic symptoms of palpitations and dizziness. In 2018, due to episodes of pre-syncope, a new procedure was performed, which did not identify an accessory pathway, but revealed Supraventricular Tachycardia with conduction delay in the left bundle branch. Currently, he remains on treatment with Sotalol, presenting sporadic symptoms of palpitations and dizziness. **Conclusion:** Although catheter ablation is an effective therapeutic option for WPW syndrome, this case highlights potential complications and the importance of continued monitoring. LBBB and Supraventricular Tachycardia highlight the need for treatment adjustments. Sotalol was a safe option, but requires surveillance and personalized assessment to optimize control of the condition.

Keywords: Wolff-Parkinson-White Syndrome; Electrocardiography; Supraventricular tachycardia; Cardiac Arrhythmias.

REVIEW ABSTRACT

Efficacy of inclisiran in reducing LDL levels and regulating PCSK9 in patients with dyslipidemia

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ABSTRACT

Introduction: Dyslipidemia, an alteration in lipid fraction levels, can be characterized by elevated serum levels of LDL-C. Excessive LDL-C is primarily responsible for the formation of atheromatous plaques, thereby increasing the risk of cardiovascular and cerebrovascular diseases. Conventional treatment includes lifestyle modifications and the use of medications to reduce LDL-C. Inclisiran, an RNA-based therapeutic agent, is employed as an alternative therapy due to its ability to inhibit the PCSK9 protein in the liver, thereby enhancing LDL-C uptake by hepatocytes. **Objective:** To evaluate the efficacy of Inclisiran treatment in reducing serum LDL-C levels and regulating PCSK9 in patients with dyslipidemia. **Methods:** A search was conducted in the PUBMED database for randomized clinical trials examining the effects of Inclisiran on LDL-C and PCSK9 levels. Using the descriptor “Inclisiran” and the filters “free full text,” “clinical trial,” “randomized controlled trial,” and “last 5 years,” 16 studies were identified, of which 8 were selected for this review. **Results:** The data demonstrated efficacy in reducing serum levels of PCSK9 and LDL-C, with better outcomes observed at a dose of Inclisiran 300 mg. The percentage differences in LDL-c ranged from -65.3% to -38.6% across studies. For PCSK9, percentage differences ranged from -83.5% to -76.7%. However, one study assessing patients with homozygous familial hypercholesterolemia found that Inclisiran did not result in a significant reduction in LDL-C (-1.68% adjusted for placebo), despite a substantial reduction in PCSK9 (-60.6% adjusted for placebo). **Conclusion:** Inclisiran appears to be a viable treatment alternative for dyslipidemia, as it promotes the reduction of serum LDL-C levels and decreases the expression of the PCSK9 protein in patients with dyslipidemia.

Keywords: Cholesterol; Cholesterol, LDL; Proprotein Convertase 9; RNA, Small Interfering.

CASE REPORT

Association of venous thromboembolism with the PAI-1 gene: case report

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ABSTRACT

Introduction: Venous thromboembolism (VTE) is characterized by an imbalance in hemostasis with the formation of thrombi in the venous system, encompassing manifestations such as deep vein thrombosis (DVT) and pulmonary embolism (PE). Several factors can predispose individuals to VTE, including genetic alterations. In this context, the 4G/5G polymorphism of the PAI-1 gene has been studied and associated with an increased risk of thromboembolism. **Methods:** A 62-year-old man, diabetic and hypertensive, with a history of previous hospitalizations for coronary artery disease and DVT, reported episodes of DVT in his children as well. He was admitted to the hospital due to sudden dyspnea on moderate exertion, chest pain, and right lower limb edema. After examinations, DVT and PE were diagnosed. A genetic predisposition was suspected, leading to an investigation of thrombophilias, including the 4G/5G polymorphism in the PAI-1 gene. During hospitalization, he received anticoagulation therapy and was advised to continue it for at least three months, in addition to non-pharmacological measures. **Discussion:** The PAI-1 gene polymorphism is a genetic alteration associated with VTE and other coagulation disorders. Abnormally elevated PAI-1 impairs plasminogen activation, resulting in excessive fibrin accumulation in blood vessels. The PAI-1 gene consists of the 4G/5G alleles. The 4G allele increases PAI-1 levels, leading to a state of low fibrinolysis, while the 5G allele reduces gene expression levels. Thus, individuals with a higher concentration of the 4G allele have increased expression of the PAI-1 gene compared to normal individuals, thereby presenting an increased risk for thromboembolic events. **Conclusion:** Although the PAI-1 gene polymorphism is associated with a potential increase in VTE risk, broader and more robust studies are needed to determine its actual influence on the development of thromboembolic events and its role in clinical practice.

Keywords: Pulmonary Embolism; Plasminogen Inactivators; Venous Thromboembolism.

REVIEW ABSTRACT

New perspectives on neurostimulation in the management of refractory Trigeminal Neuralgia: a systematic review

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ABSTRACT

Introduction: Trigeminal Neuralgia (TN) is a rare and debilitating paroxysmal, short, and stabbing pain in the facial region. The initial treatment is pharmacological, but when the pain persists, conventional surgical procedures may be indicated, such as radiofrequency rhizotomy, balloon compression, and microvascular decompression. In cases of refractoriness to these therapeutic modalities, neuromodulation, which consists of emitting electrical pulses through an implantable stimulation system, can be used. **Objective:** To analyze the efficacy of neurostimulation in the therapeutic management of TN. **Method:** A systematic review following the PRISMA method of scientific articles in the PUBMED database, using the descriptors “Trigeminal,” “Neuralgia,” and “Treatment,” separated by the Boolean operator “AND.” Articles published between 2015 and 2024 were included. **Results:** Neurostimulation stands out as a promising approach in the treatment of refractory TN. Spinal cord stimulation (scs) is performed in the epidural region or on the dorsal root ganglion. In an analysis of fifteen studies, O’Connell *et al.* identified that, in six of them, epidural spinal stimulation provided significant short-term pain relief, although it did not demonstrate statistical relevance in data related to ganglion stimulation. Peripheral neurostimulation of the trigeminal branches, still considered off-label, also showed satisfactory results. Studies by Elsayed *et al.* and Bina *et al.* demonstrated benefits in reducing pain in patients with refractory TN. Bina *et al.* evaluated twelve patients who underwent long-term electrode implantation, and 80% reported at least a 50% reduction in pain. **Conclusion:** TN is a debilitating condition that affects patients’ quality of life. Neurostimulation has proven to be a promising approach in reducing refractory chronic pain, as evidenced by several scientific studies. However, further high-evidence research is needed to expand its application in medical practice.

Keywords: Trigeminal Neuralgia; Neurology; Trigeminal Nerve Diseases.

REVIEW ABSTRACT

Atopic dermatitis: use of dupilumab

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ABSTRACT

Introduction: Atopic dermatitis (AD) is a chronic inflammatory skin condition, with a high global prevalence. Although often treated with topical therapies, dupilumab is emerging as an effective alternative for severe cases of AD. **Objective:** This study aims to evaluate the efficacy and safety of dupilumab in the treatment of atopic dermatitis. **Methods:** A review was carried out on the PubMed and SciELO platforms, using the keywords “atopic dermatitis”, “treatment” and “Dupilumab”. The search covered publications from the beginning of the databases until August 2024. The inclusion criteria were: (1) clinical studies that evaluated dupilumab, (2) randomized clinical trials, cohort and case-control studies, and (3) articles in English, Portuguese or Spanish. Studies without quantitative or qualitative data were excluded. **Results:** Dupilumab is a fully humanized monoclonal antibody that acts directly on interleukin 4 and 13 receptors, cytokines that promote atopic inflammation and affect skin barrier function. Its safety profile is superior to that of traditional immunosuppressants, such as cyclosporine and methotrexate. In the phase III clinical trial (NCT03054428), involving 251 adolescents with moderate to severe AD not controlled by topical treatment, Dupilumab showed significant improvements in the signs and symptoms of the disease, including itching, anxiety, depression and quality of life. The treated group had fewer skin infections compared to the placebo. The most frequent side effects were injection site reactions and conjunctivitis. Furthermore, in a case of two adolescents with severe AD not controlled by systemic treatments, Dupilumab demonstrated a good response and absence of serious side effects, improving quality of life and reducing infections and the physical and psychosocial impact of the disease. **Conclusion:** Dupilumab proved to be highly effective and safe for the control of severe AD with tolerable side effects and high overall satisfaction.

Keywords: Atopic Dermatitis; Therapy; Immunological Factors.

ORIGINAL STUDY ABSTRACT

Benzodiazepine Abuse and Its Relationship with Social Determinants of Health: a Rapid Assessment

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ABSTRACT

Introduction: In a municipality in the central-west region of Minas Gerais, with 12,931 inhabitants, healthcare professionals reported a perceived disproportionate use of benzodiazepines, along with difficulties in deprescribing due to irregular use and the continuation of inappropriate prescriptions. **Objective:** To investigate the prolonged use of benzodiazepines in the municipality's population and analyze its relationship with social determinants of health. **Method:** This cross-sectional study employed a rapid estimation to identify the most dispensed medications by the municipal pharmacy and the clinical conditions of the population in the e-sus system, from 2023 to April 2024. A questionnaire was administered to benzodiazepine users with two questions: whether the use of these medications is a problem and whether it is related to social determinants of health. **Results:** Clonazepam was the second most dispensed medication in 2023, with approximately 8,000 tablets per month, and the most dispensed in the first three months of 2024, with an average of 5,830 tablets per month. Five of the ten most dispensed medications in 2023 were for psychiatric disorders, with a similar pattern in 2024. Data from the e-sus system show that anxiety disorders are more prevalent than hypertension, and the rate of self-inflicted injuries was 1.94 times higher than the national average (2018-2022). Of the 32 participants, 75% considered benzodiazepine use to be a problem. Regarding the relationship with social determinants, 31.25% associated use with multiple factors, 34.37% with age, 40.62% with hereditary factors, 21% with the work environment, and 12.5% with socioeconomic factors. **Conclusion:** The use of benzodiazepines in the municipality is concerning, reflecting significant demand and a critical perception of its impacts, suggesting the need for more comprehensive approaches.

Keywords: Hypnotics and Sedatives; Social Determinants of Health; Primary Health Care.

CASE REPORT

Approach of plastic surgery in Proteus Syndrome:
a case report

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ABSTRACT

Introduction: Proteus Syndrome (PS) is a rare syndrome characterized by disproportionate and asymmetric growth affecting various body tissues. Multiple hamartomas and vascular malformations may also be present. Most often, PS manifestations develop rapidly during childhood, potentially leading to severe disfigurement. Its pathophysiology involves an activating somatic mutation in the AKT1 oncogene, which is still under-described in the literature. **Case Description:** A 42-year-old woman presented at the clinic for excision of a recurrent lesion in the right axillary region. She reports being a carrier of Proteus Syndrome, with bilateral macrodactyly in the hands and nodules on both upper limbs, left hemithorax, and right axillary region. An angiography of the upper limbs showed increased fat deposition more evident in the right axillary region, with no significant changes in vascularization. The patient was referred for surgery after clearance of surgical risk. **Discussion:** The diagnosis of Proteus Syndrome requires that lesions have a progressive course and are inherited sporadically. Phenotypic variation influences both the nature and severity of manifestations. Prognosis depends on the location and degree of abnormal growth, as well as the presence of significant complications. With multidisciplinary treatment, mildly affected individuals have an excellent prognosis. It is important to note that there are no published clinical practice guidelines for Proteus Syndrome, so individualized management is essential. In this case, the patient was revisited for the removal of a recurrent lipomatous axillary lesion. **Conclusion:** PS has a significant functional and aesthetic impact on the patient's life. Its therapeutic approach should be multidisciplinary and integrated, individualizing clinical management and repercussions to avoid potential complications and improve the patient's quality of life.

Keywords: Proteus Syndrome; Hamartoma; Plastic Surgery.

REVIEW ABSTRACT

Heart failure secondary to chemotherapy for breast cancer: a systematic review

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ABSTRACT

Introduction: A 61-year-old woman was referred to the cardiology department of a university outpatient clinic after a chest X-ray suggested an enlarged cardiac area, associated with symptoms of dyspnea and precordial pain. The patient had a history of breast cancer in 2017, for which she underwent chemotherapy and radiotherapy. Given this case, the hypothesis of heart failure (HF) secondary to chemotherapy for breast cancer was raised. **Objective:** To analyze the correlation between heart failure and chemotherapy treatment for breast cancer. **Method:** A systematic review was conducted using the PubMed database with the following descriptors: “Heart Failure,” “Breast Cancer,” “Chemotherapy.” Studies published between 2019 and 2024 were included, including meta-analyses, systematic reviews, and randomized clinical trials. Articles whose titles did not align with the research objective were excluded. **Results:** Wong et al. and Jackson et al. compared women with breast cancer who used the chemotherapy drug trastuzumab with a placebo group and found a higher incidence of HF in women who used the cardiotoxic drug. In a clinical trial conducted by Azambuja et al. with 4,769 participants, the use of trastuzumab and trastuzumab combined with pertuzumab was compared. In both groups, an increase in HF incidence was observed, with the risk being higher in the dual therapy group. All studies found statistically significant results linking the increased number of HF cases to the use of drugs like trastuzumab and, mainly, anthracyclines. **Conclusion:** The cardiotoxicity induced by certain classes of chemotherapy drugs can explain the development of heart failure, even years after treatment. Thus, patients at risk should have their ventricular function periodically assessed to detect dysfunction early and take measures to minimize myocardial damage.

Keywords: Heart Failure; Breast Cancer; Chemotherapy.

CASE REPORT

Takotsubo cardiomyopathy as a differential diagnosis of Acute Coronary Syndrome: a case report

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ABSTRACT

Introduction: Takotsubo cardiomyopathy is a transient dysfunction of the left ventricle (LV) following intense physical or emotional stress, in the absence of significant coronary artery disease. It affects 90% of cases in women after the sixth decade of life. **Objective:** To present the case history of a patient with clinical symptoms suggestive of Acute Coronary Syndrome (ACS) who was diagnosed with Takotsubo cardiomyopathy through cardiac catheterization (CATE). **Method:** Analysis of the patient's medical records at a University Hospital in Belo Horizonte from November 23 to 30, 2024, and a literature review. **Case Report:** S.R.A., 71 years old, hypertensive and dyslipidemic, admitted with squeezing chest pain radiating to the back and right upper limb, following intense emotional stress. Initially, an electrocardiogram (ECG) showed bradycardia. Serum troponin levels were positive, leading to the initiation of the ACS protocol. Subsequently, the patient underwent a CATE, which revealed the absence of coronary artery disease and a pattern suggestive of Takotsubo syndrome in the LV. A new ECG and an echocardiogram (ECHO) were requested, showing sinus rhythm, bradycardia, T-wave inversion in an extensive anterior region, ejection fraction of 43%, segmental cardiomyopathy with moderate systolic dysfunction, and significant hypokinesia of the apical portions of all LV walls. **Discussion:** Clinical presentation of this cardiomyopathy is similar to that of ACS: chest pain, dyspnea, electrocardiographic changes, and elevated myocardial necrosis biomarkers. In the first ECG, 90% of cases present ST-segment elevation in precordial leads. Other possible changes include T-wave inversion, the appearance of pathological Q waves, and QT interval prolongation. Troponin elevation occurs in 100% of cases. ECHO and CATE demonstrate the absence of significant atherosclerotic lesions, associated with apical akinesia or dyskinesia of the left ventricle with basal hyperkinesia. **Conclusion:** Hemodynamic study is crucial for diagnostic confirmation, as the therapeutic approaches differ between ACS and Takotsubo syndrome.

Keywords: Takotsubo cardiomyopathy; Acute Coronary Syndrome; Cardiac catheterization.

REVIEW ABSTRACT

Perspectives of ferroptosis as a therapeutic target in Parkinson's disease

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ABSTRACT

Introduction: Parkinson's disease (PD) is the second most common central neurodegenerative disorder in the world. It is characterized by the degeneration of dopaminergic neurons in the substantia nigra (SN) and the abnormal aggregation of α -synuclein. Although dopaminergic therapies alleviate initial motor symptoms, a neuroprotective treatment to slow progressive degeneration is lacking. Recent studies suggest ferroptosis, a cell death pathway defined by the accumulation of reactive oxygen species and lipid peroxidation, as a key factor in PD. Given the convergence of this cell death with laboratory findings in PD, it presents itself as a promising therapeutic target. **Objective:** To review the relationship between ferroptosis and neurodegeneration in PD, to evaluate the suppression of cell death as a therapeutic target. **Methodology:** A systematic review was carried out in the Pubmed, Cochrane and Scielo databases, including complete articles on the influence of ferroptosis on PD, published between 2010 and 2024, in Portuguese, English and French. The descriptors used were "Ferroptosis", "Cell Death" and "Parkinson's Disease". Narrative reviews, literature reviews and studies with low methodological quality or without clear data were restored. In the end, 12 most relevant studies were selected, evaluated blindly and independently. **Result:** There is a high deposition of iron in regions harmful to PD, in addition to cellular accumulation of reactive oxygen species and lipid peroxides that are present in the ferroptosis cycle. The relationship between α synuclein oligomers and iron compounds was also proven. Furthermore, existing questions on the topic do not conclusively address pharmacological evidence that affects studies detrimental to ferroptosis, despite being a promising point of intervention. **Conclusion:** This discovery allows metabolic pathways involved in ferroptosis to be explored in the future to suppress the loss of the neurodegenerative characteristic of PD. This brings vigor to an optimistic scenario regarding the improvement of patients in the coming decades.

Keywords: Ferroptosis; Parkinson's Disease; Dopaminergic Neurons; Cell Death; Iron.

CASE REPORT

Squamocellular carcinoma of the penile urethra associated with HPV infection: a case report

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ABSTRACT

Introduction: Penile cancer is an uncommon neoplasia, which may be associated with infection by human papillomavirus (HPV) and its diagnosis is confirmed by anatomopathology. Treatment varies between radiotherapy, chemotherapy and surgery, depending on the patient's evolution and clinical condition. **Objective:** To evaluate risk factors and management of a case of penile urothelial cancer, the scientific relevance of it is based on the scarcity of literature on the disease. **Method:** Case report provided by an Oncology Hospital, with discussion founded on a literature review. Case report: A 67-year-old male patient from first presented complaints of dysuria and a weak urinary stream. He had a visible penile lesion, which was assessed by incisional biopsy, which identified "squamous cell carcinoma originating in the urothelial mucosa, associated with HPV infection". Penectomy + bilateral inguinal lymphadenectomy was chosen as treatment, due to the nature of the histological involvement. Post-operatively, he developed suture dehiscence of the penile stump, with no other complications. Finally, radiotherapy was under discussion, but after four months, the benefits were still uncertain, and it has not been decided to carry it out to date. **Discussion:** Penile cancer is a rare pathology which, in around 50% of cases, occurs in association with HPV infection. It usually appears on the glans penis and less invasive treatments such as radical circumcision or local excision are the initial choices. Total penectomy, according to the guidelines of the Brazilian Society of Urology, is reserved for more serious cases involving the urethra, but in this patient, the neoplasm originated in the urothelial mucosa, thus justifying the choice of radical surgery.

Keywords: Squamous cell carcinoma; Penile cancer; Human papillomavirus.

REVIEW ABSTRACT

The importance of screening for subclinical hypothyroidism during prenatal care

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ABSTRACT

Introduction: During early pregnancy, the thyroid gland undergoes additional stress to produce more hormones to support the developing fetus. When this adaptation does not occur properly, it can result in hypothyroidism, including subclinical hypothyroidism. Screening for this condition during prenatal care is essential due to its potential negative impacts on both maternal and fetal health. Early detection and treatment are crucial to minimize complications and adverse effects. **Objectives:** To analyze the importance of screening for subclinical hypothyroidism during pregnancy. **Methods:** The systematic review followed PRISMA guidelines, searching for articles in PubMed, Scielo, BVS, and LILACS databases, in English, Portuguese, and Spanish, from 2004 to 2024. Of the 343 articles found, 330 were excluded for not being freely available or not meeting inclusion criteria, resulting in 13 studies included. **Results:** Screening for subclinical hypothyroidism is vital due to its potential negative impacts on maternal and fetal health. Mild deficiencies in maternal thyroid hormones can cause complications in fetal neurodevelopment, as the fetus has thyroid hormone receptors from 7-8 weeks of gestation. Additionally, subclinical hypothyroidism can lead to complications such as miscarriage, preterm birth, preeclampsia, and gestational diabetes. Levothyroxine treatment is recommended for pregnant women with subclinical hypothyroidism, especially when TSH levels are elevated or thyroid peroxidase antibodies are present. While selective screening for high-risk pregnancies is common, universal screening could enable early detection and appropriate intervention, reducing risks. **Conclusion:** Early universal screening for hypothyroidism and subclinical hypothyroidism during pregnancy is crucial for improving maternal and fetal outcomes, preventing complications, and promoting fetal neurocognitive development. The discussion about universal screening remains relevant, and more studies are needed to optimize screening and treatment practices.

Keywords: Hypothyroidism; Screening; Treatment; Complications; Pregnancy.

CASE REPORT

Paracentral acute middle maculopathy in postoperative bariatric patient

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ABSTRACT

Introduction: Paracentral acute middle maculopathy (PAMM) refers to a recognized characteristic hyper-reflective band-like lesion involving the middle layers of the retina identified by spectral-domain optical coherence tomography (SD-OCT) imaging. This condition consequently progresses into thinning and atrophy of those retinal layers, provoking symptoms like acute vision loss and scotoma. **Objective:** Describe a PAMM case report involving a patient diagnosed with non ischemic central retina vein occlusion, in the context of bariatric surgery postoperative. **Method:** Case report written according to the CARE criteria (Consensus-based Clinical Case Reporting Guideline Development). **Results:** 60 year old woman referred to ophthalmological evaluation reporting sudden and painless visual loss in the right eye for 48 hours. She had a previous medical history for bariatric surgery, leading to a 46 kg weight loss in the last 10 months. She also presented best corrected visual acuity (BCVA) of 20/20 in both eyes in the last 5 months. On current examination, BCVA was 20/200 in right eye (OD) and 20/20 in left eye (OS), normal slit-lamp biomicroscopy. A contrast fundus evaluation of OD revealed tortuosity and dilatation of the retinal veins, irregular retinal areas around the macula throughout venous tributaries and a small superficial intraretinal hemorrhage. OCT of OD revealed a hyperreflexivity band in the inner nuclear layer. Diagnosis of non ischemic central retinal vein occlusion (CRVO). Two weeks after evaluation, the patient referred to scotoma concerns. Novel fundus examination revealed anatomical resolution of the CRVO. Lastly, follow-up OCT evidenced retinal thinning at the expense of the inner layers of the retina. Final diagnosis of PAMM. **Conclusions:** Bariatric surgery has several postoperative complications stated, including ischemic consequences in microvasculature due to inflammatory process. However its association with retinal vascular phenomena has not yet been described and new research projects are needed to further confirm such pathology.

Keywords: Retinal diseases; retinal vein occlusion; bariatric surgery.

REVIEW ABSTRACT

Assesment of frailty for risk management in elderly patients: challenges and strategies

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ABSTRACT

Introduction: Frailty is defined as the degree of vulnerability of elderly individuals to unfavorable clinical outcomes such as functional decline, falls, hospitalization, institutionalization, and death. The care of elderly patients thus requires the use of frailty screening tools. The Clinical Frailty Scale (CFS) and the Clinical-Functional Vulnerability Index (IVCF-20) are instruments that can assist in identifying older adults at higher risk of clinical complications. **Objective:** To analyze the use of two frailty screening tools in identifying patients at higher risk of unfavorable clinical outcomes. **Methods:** This study is a systematic review conducted through searches in PubMed, Scielo, and Cochrane databases using the descriptors “frailty scales” and “frailty in older adults.” Studies using the CFS or IVCF-20 published between 2016 and 2024 were included, while studies with poor methodological quality and incomplete data were excluded. A total of three articles were selected. **Results:** Frailty in older adults proved to be a reliable predictor of adverse clinical outcomes. In 74% of cases, the CFS predicted outcomes such as mortality (87%), clinical complications (100%), and functional decline (91%). Frail older adults had a three-fold higher risk of in-hospital death and increased likelihood of requiring prolonged care. The IVCF-20 showed significant effectiveness in predicting 90-day mortality, clinical complications, and functional decline in nearly all cases. **Conclusion:** Both the CFS and the IVCF-20 are effective tools for identifying frailty in elderly patients. Their use enables the prediction of individuals at higher risk of unfavorable outcomes and supports the personalization and adjustment of treatment according to frailty level and proportional therapeutic goals. The application of these tools may improve risk management and optimize therapeutic and care resources in a patient-centered approach.

Keywords: Elderly; Frailty; Vulnerability.z