Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Anna Moniuszko-Malinowska, Beata Galińska-Skok, Piotr Czupryna

Title: Tick Talk: Can a Bite Steal Your Mind?

Abstract No. 3

Tick-borne encephalitis (TBE) is caused by the Flaviviridae virus and occurs endemically innortheastern Poland. In 2023, 659 cases were reported nationwide. The disease follows a biphasiccourse and presents in three forms: meningitis, encephalomeningitis, or meningoencephalomyelitis.Up to 58% of patients experience complications, including psychiatric disorders (anxiety, depression),cognitive impairments, and personality changes.Objective:To estimate the prevalence of depression and anxiety in patients during the acute phase of TBE.Materials and Methods:Seventy patients hospitalized at the Department of Infectious Diseases and Neuroinfections inBiałystok between April and December 2024 were examined. The study group included 47 TBEpatients, while 23 served as controls. Inclusion criteria were age 18–65 years, confirmed TBE (studygroup), exclusion of other meningitis etiologies (controls), absence of confounding neurologicalconditions, and informed consent. Mental health was assessed using the Hospital Anxiety andDepression Scale (HADS) and the MiniInternational Neuropsychiatric Interview (MINI).Results:Depressive disorders were observed in 6 patients (13%) in the study group, with 5 additional patients(11%) showing borderline scores. Anxiety disorders were diagnosed in 5 patients (11%), while 4 (9%)exhibited borderline results. Psychiatric disorders were identified in 25 patients
(53%) in the studygroup (p=0.01). Frequent symptoms included sleep disturbances (p=0.006), slowed speech/motoractivity (p=0.01), and fatigue
(p=0.04).Conclusions:Patients with TBE are at significant risk of psychiatric disorders during the acute phase. Psychiatricevaluation should be integrated into standard diagnostic and therapeutic protocols for TBE. Follow-up studies are needed to track the progression of these changes.

Book of Abstracts

Session:
O1 Clinical Sciences PhD

AULA 1
FRI 25.04.2025 09:30-11:30

Authors: Zuzanna Wojtczak

Title: Thrombolysis in Kidney Infarction (TIKI) scale

Abstract No. 5

Renal artery (RA) occlusion, a rare but clinically significant condition, can lead to severe complications, including acute kidney injury or dialysis. It is a prevalent complication following fenestrated or branched endovascular aortic repair (B/FEVAR) for thoracoabdominal aortic pathologies. Occluded bridging stentgrafts can be effectively managed via endovascular revascularisation, even after prolonged ischaemia. The study aims to introduce the Thrombolysis in Kidney Infarction (TIKI) angiographic scale to assess the efficacy of these procedures. We analysed 82 patients who underwent revascularisation of one or both RA branches following B/FEVAR at the 2nd Department of Clinical Radiology WUM between 2016-2025. A total of 131 RA branches were revascularised, with a success rate of 95%. Two independent radiologists and a PhD candidate evaluated all angiographic studies to assign TIKI scores. The TIKI scale was developed based on 131 angiographic images of the treated occluded vessels, drawing inspiration from existing scales such as TIMI/TICI. Prior to the evaluation, pre-operative CT angiography was examined in all patients to assess the RAs and identify any preexisting parenchymal abnormalities. To define the degree of restored renal perfusion six gradations scale (0, 1, 2a, 2b, 2c, 3) was created. Criteria included the percentage of preserved renal parenchyma, vascular stasis, parenchymal perfusion velocity, venous outflow, the presence of extensive emboli, and vascular resistance. The proposed TIKI scale can provide physicians with a tool to evaluate the outcomes of RA revascularisation, enabling better comparison of results between centres worldwide and facilitating future research.

Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Zuzanna Wojtczak

Title: State-Of-The-Art In Situ Laser Fenestration In One-Stage Total Endovascular Percutaneous Aortic Arch Repair

Abstract No. 6

The purpose of this study is to present the results of endovascular aortic arch (AA) repair with retrograde endoluminal laser in situ fenestration (LISF) of the Nexus AA device forpreservation of AA branches.This was a single-center, retrospective analysis of prospectively collected data from patients treated percutaneously with the Nexus device and LISF for aortic arch diseases. All patients were unfit for open surgery and required urgent intervention. Primary endpoints included technical success, early mortality, cerebral and spinal cord ischemia and clinical success on 12 months followup. Clinically adequate intracranial vascular cross filling was confirmed angiographically and with constant periprocedural cerebral oximetry. Vascular accesses were selected appropriately to the anatomical conditions of the patients.From 2020 to 2022, 5 patients (62.8±10.1years 3 men) underwent percutaneous AA repair with LISF of the Nexus device. Indications included postdissection aneurysms (n=3),atherosclerotic aneurysms (n=1) and type Ia entry flow after failed type B aortic dissection treatment (n=1). A total of 8 fenestrations were performed (LCCA n=5, LSA n=3), with 1(n=2) or 2 (n=3) fenestrations per patient. Technical success was achieved in all the patients. No patient developed major complications, such as death or CNS ischemia. During the 1-12 months follow-up 1 case of endoleak was detected that later subsided. Follow-up CTA at 24 months demonstrated false-lumen thrombosis, subsequent aortic wall remodelling, andpatency of all fenestrations.While LISF of Nexus AA stent graft remains an off-label technique, it was shown to be an effective and promising therapeutic option for urgent patients unfit for open surgery.
Preoperative assessment of the intracranial arteries is essential for success.

Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Julia Grymuza, Marta Lewoc-Magnuszewska, Kamil Waczyński, Alan Tkaczuk

Title: Hematological and lipid profile deviations in primary hyperparathyroidism: A casecontrol study

Abstract No. 7

Primary hyperparathyroidism (PHPT) is characterized by excessive parathyroid hormone (PTH) secretion from one or more parathyroid glands. With a population prevalence of 0.11%, it ranks as the third most common endocrine disorder. PHPT can be asymptomatic or present with diverse manifestations mimicking other systemic diseases, which frequently results in a protracted interval between the onset of the disease and its definitive diagnosis. The precise pathogenesis of PHPT remains to be fully elucidated. Current medical guidelines identify surgical intervention as the only definitively effective treatment for PHPT, while acknowledging the associated risk of complications. Ongoing research into diagnostic markers may facilitate the development of conservative treatment strategies for this condition.The study aimed to determine the existence of deviations in routine complete blood count parameters and the lipid profile among patients diagnosed with primary hyperparathyroidism.The research cohort comprised 30 individuals with a confirmed diagnosis of primary hyperparathyroidism, including 26 females and 4 males ranging in age from 28 to 85 years, who underwent parathyroidectomy at the 1st Department of General and Endocrine Surgery. Routine complete blood count parameters (red blood cell count, white blood cell count, platelet count, mean corpuscular hemoglobin concentration, and hematocrit), as well as the patients' lipid profiles, were analyzed. The control group consisted of 20 healthy volunteers.The study revealed statistically significant distinctions within the investigated group compared to the control subjects. Specifically, a diminished hemoglobin concentration was evident in 27% of the study participants, while 40% exhibited decreased hematocrit levels. Furthermore, 30% of the study population presented with at least one deviation from the normal range in their lipid profile

parameters.Statistically significant alterations in hematological parameters (hemoglobin and hematocrit) and lipid profiles in patients with PHPT compared to healthy controls have been revealed. These findings suggest that PHPT may be associated with systemic effects extending beyond calcium homeostasis, potentially influencing erythropoiesis and lipid metabolism. Further research is needed to investigate the clinical significance and underlying mechanisms of these observed deviations in the context of PHPT pathogenesis and management.

Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Adam Filip Płoński

Title: Clinical Parameters Affecting Gray-scale Median in Symptomatic and Asymptomatic Patients Undergoing Carotid Endarterectomy

Abstract No. 8

The identification of clinical factors affecting the gray-scale median (GSM) and determination of GSM diagnostic utility for differentiating between symptomatic and asymptomatic internal carotid artery (ICA) stenosis. Methods: This study included 45 patients with asymptomatic and 40 patients with symptomatic ICA stenosis undergoing carotid endarterectomy (CEA). Echolucency of carotid plaque was determined using computerized techniques for the GSM analysis. Study groups were compared in terms of clinical risk factors, coexisting comorbidities, and used pharmacotherapy. Results: Mean GSM values in the symptomatic group were significantly lower than in the asymptomatic group ($p < 0.001$). Both in the univariate as well as in the multiple regression analysis, GSM was significantly correlated with D-dimers and fasting plasma glucose levels and tended to correlate with βadrenoceptor antagonist use in the symptomatic group. In asymptomatic patients, GSM was associated with the presence of grade 2 and grade 3 hypertension, and tended to correlate with the use of metformin, sulfonylureas, and statin. Independent factors for GSM in this group remained as grade 3 hypertension and statin's therapy. The receiver operating characteristic (ROC) analysis revealed that GSM differentiated symptomatic from asymptomatic ICA stenosis with sensitivity and specificity of 73% and 80%, respectively. Conclusion: The completely diverse clinical parameters may affect GSM in symptomatic and asymptomatic patients undergoing CEA, whose clinical characteristics were similar in terms of most of the compared parameters. GSM may be a clinically useful parameter for differentiating between symptomatic and asymptomatic ICA stenosis.

Book of Abstracts

Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Aleksandra Anna Nasiadka, Barbara Nikitiuk

Title: Prognostic markers of heart failure with preserved ejection fraction in patients with acute kidney injury- preliminary results

Abstract No. 9

Acute kidney injury (AKI) represents a heterogeneous clinical syndrome with diverse etiologies and pathophysiological mechanisms, frequently encountered in medical practice. Even mild disruptions in renal function are associated with adverse long-term outcomes, including an elevated risk of chronic kidney disease (CKD) and heart failure. Diagnosing heart failure with preserved ejection fraction (HFpEF) remains challenging due to the lack of definitive biochemical or echocardiographic markers and universally accepted diagnostic criteria. Consequently, many patients are misdiagnosed or diagnosed late, often after significant disease progression.AimThis study aims to identify optimal predictors for HFpEF development in patients who have experienced AKI. By determining clinically relevant prognostic markers, the study seeks to enable early identification of high-risk groups for HFpEF among AKI patients.MethodsDuring hospitalization, patients with AKI underwent comprehensive assessments, including echocardiography and laboratory evaluations of renal function markers such as creatinine, cystatin C, albumin-to-creatinine ratio (ACR), and urinalysis. At a follow-up visit three months post-discharge, laboratory parameters were reassessed alongside clinical outcomes such as rehospitalizations and cardiovascular events. Echocardiographic evaluations and scoring systems further aided in estimating HFpEF risk among participants.ResultsThe current cohort of 15 patients showed no significant trend in EF% (ejection fraction) changes indicative of systolic dysfunction. However, the data revealed a trend toward worsening parameters correlating with diastolic function. Preliminary results demonstrated that 73% of patients exhibited an increase in LAVI (Left Atrial Volume Index), a critical parameter for diagnostic HFpEF. Both the mean lateral e' and medial e' (early diastolic myocardial velocities measured at the mitral annulus's lateral and septal segments) were lower at the 3-month follow-up post-AKI. Additionally, the mean TRJV

(tricuspid regurgitant jet velocity) increased during post-AKI evaluation. E/e' ratios during the AKI episode and follow-up were comparable.ConclusionThe current data suggest a trend toward diastolic dysfunction development in post-AKI patients. Expanding the patient cohort may yield statistically significant results. Subsequent analysis correlating these findings with blood and urine biomarkers will enable an assessment of their predictive value for HFpEF development following AKI episodes.

Book of Abstracts

Session:

O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Katarzyna Krajewska, Krystian Ejdys, Karol A. Kamiński, Katarzyna Ptaszyńska

Title: Right-ventricle heart failure in PAH vs. HFrEF with secondary PH: Hemodynamic, ergospirometric, and organ function correlations

Abstract No. 10

Purpose: The goal of the study was to identify markers of organ function used in daily routines that couldpotentially aid in the overall evaluation of the cardiovascular system in patients with right-ventricle heart failuredue to pulmonary arterial hypertension (PAH) and left-ventricle heart failure. We analyzed correlations betweenparameters from right heart catheterization (RHC), cardiopulmonary exercise test (CPET), and selected laboratoryparameters of thyroid, liver, kidneys function and iron homeostasis.Patients and methods: A retrospective analysis included 107 patients (mean age 57.6 +/- 16.2 34.6 % women),comprising 57 patients with PAH (mean age 54.0 +/- 18.2 49.1 % women) and 50 patients with heart failure withreduced ejection fraction (HFrEF) <40 % (mean age 61.6 +/- 12.7 18 % women). All patients underwent CPET.Each patient in the PAH group had RHC performed. Fifteen patients from the HFrEF group underwent RHC, whichconfirmed the suspicion of pulmonary hypertension (HFrEF-SPH).Results: CPET and laboratory parameters' analysis showed strong correlations between ventilation/carbon dioxideproduction (VE/VCO2) slope and NT-proBNP in HFrEF without secondary PH and HFrEF-SPH groups. In the PAHgroup, VE/VCO2 slope correlated with liver and thyroid function but also with morphological parameters of red cell system.Analysis of correlations between laboratory and hemodynamic parameters revealed significant correlations between pulmonary arterial pressure, pulmonary vascular resistance (PVR) and red-cell parameters, especiallystrong with fT4 in the PAH group.Conclusions: In HFrEF-SPH patients, laboratory parameters strongly correlated with pulmonary pressures andpulmonary capillary wedge pressure (PCWP).

Book of Abstracts

Session:
O1 Clinical Sciences PhD

AULA 1

FRI 25.04.2025 09:30-11:30

Authors: Franciszek Kukliński, Teresa Fernandez Moreno

Title: Repetitive use of levosimendan in ambulatory heart failure patients - preliminary study results

Abstract No. 11

Background and methods:Despite using the latest pharmacotherapy recommended by the European Society of Cardiology (ESC) guidelines, patients with acute decompensated heart failure (ADHF) run a high risk of death and recurrent decompensations, which require multiple hospitalizations due to heart failure (HHF). Repetitive use of levosimendan, supported by encouraging initial clinical trial results, seems to be a promising therapeutic option in this group of patients. LEIA-HF was a multicenter, randomized, double-blind, placebo-controlled clinical trial which included ambulatory patients with chronic, advanced, severe HF and reduced ejection fraction (HFrEF). Results: Among 78 prescreened patients, altogether, 64 patients were randomized- 34 to the drug infusion group and 30 to placebo. The starting dose of levosimendan was 0.05 µg/kg/min. (without bolus), with a possibility to increase the dose according to the blood pressure (BP) values and up to the dose contained in one vial (12.5 mg). The infusion duration depended on the patient's weight and the speed of the infusion (the average of 24 h). All enrolled patients were treated according to the current ESC guidelines, which included b-blockers, diuretics, angiotensin-converting enzyme inhibitors (ACEi), angiotensin receptor blockers (ARB), or Angiotensin ReceptorNeprilysin Inhibitors (ARNi), and mineralocorticoid receptor antagonists. The mean age of the whole group was 64.2 13.1 years, 57 men, with a mean LVEF of 20.8 6.6% and a mean NYHA class of 3.1 0.3. H□lf of the patients (n=32) had an ischemic HF eti□logy. The primary endpoint (compos□te endpoint) was death from any cause or unplanned HHF.At admission, the median value of NTpro-B-type natriuretic peptide (NTproBNP) was 3521 pg/mL (interquartile range [IR], 1670 to 6628).During 7.6-month follow-up, 36 patients (56.2%) reached CEP. In these patients, higher median NTproBNP values (p=0.001) and worse kidney function (0.003) were observed, with higher doses of torasemide used (p=0.001).Seven (10.9%) patients, only from the study group, died (allcause mortality) during the follow-up period of 3.1 2.2 months, but none of them during levosimenda

□

infusion. In this group of patients, as compared to survivors, significant hyponatremia was found (136.4±3.4 vs.139.3±3.1, respectively, p=0.02), and higher doses of torasemide were used (42.9±39.5 vs. 27.3±66.1, respectively, p=0.01).During the follow-up period a significant trend towards the improvement of the LVEF, and the decrease of NTproBNP values were found (Figures).Conclusions:Repetitive infusion of levosimendan in ambulatory patients with ADHF seems to improve clinical parameters (NTproBNP) andechocardiographic (LVEF) function. Despite the double-blind randomized study design, patients in the study group were in worse condition with significatly higher mortality rate, which caused the study to be stopped prematurely and made it impossible to draw any objective conclusions.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Arkadiusz Żbikowski, Tomasz Kowalczyk, Gabriela Żynel, Hanna Krafzik, Elżbieta Łapińska

Title: Proteomic profiling in PACS2 syndrome: insights into disease mechanisms

Abstract No. 12

PACS2 syndrome (PS), an exceptionally rare genetic disorder, arises from de novo mutations in the PACS2 gene, specifically E209K or E211K. PS is mainly characterized by seizures, neurodevelopmental delays, low muscle tone, speech and motor skill delays, as well as behavioral problems. The molecular basis of PS lies in the PACS2 protein, a crucial intracellular transporter responsible for the trafficking of protein cargo involved in apoptosis/ survival signaling, regulation of mitochondrial function and stress response. In vitro studies have revealed that overexpression of the PACS2E209K or PACS2E211K mutations disrupts protein-protein interactions and sensitizes cells to apoptosis. Further investigations have shown that these mutated PACS2 proteins are unable to undergo phosphorylation at serine 207, serine 208, and serine 213. This lack of phosphorylation prevents the proper transport of polycystin-2 (PKD2), leading to mitochondrial dysfunction. Despite the significant insights gained from in vitro studies, the precise effects of PACS2E209K and PACS2E211K on intracellular signaling across different tissues remain largely unexplored. Further research is needed to elucidate the complex molecular mechanisms underlying this rare and debilitating disorder.To achieve a comprehensive understanding of PACS2 syndrome at the molecular level, we performed the first in vivo proteomic analysis, characterizing proteome-wide alterations associated with PS. Adult heterozygous mice (+/E209K, 10–12 weeks old) and their wildtype (+/+) littermates were bred at the Experimental Medicine Center (Białystok, Poland). Six control and six PS-affected mice were sacrificed. Collected tissues underwent homogenization using standardized proteomic protocols. Proteomic analyses were conducted utilizing Data Independent Acquisition (DIA) mass spectrometry, with trypsindigested proteins separated

on a nanoliquid chromatography (nano-LC) system coupled to an Orbitrap Fusion mass spectrometer. Data were analyzed using Spectronaut software.Our comparative proteomic analyses revealed tissue-specific impacts of the PACS2 mutation on the global proteome. The hippocampus exhibited the most significant proteomic alterations, indicating a critical involvement of this brain region in PS pathogenesis. Specifically, hippocampal tissues from mutant mice showed notable upregulation of proteins associated with cellular stress response, intrinsic apoptosis, autophagy, and ion homeostasis. Conversely, proteins involved in cytoplasmic calcium regulation, RNA metabolism, and membrane trafficking were downregulated. In contrast, proteomic alterations in other tissues were subtler and more complex to interpret, suggesting tissue-dependent roles of the PACS2 protein.This study provides novel insights into the molecular complexity of PACS2 syndrome, laying the foundation for future research into therapeutic strategies and biomarkers for this rare and debilitating disorder.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Wiktoria Romańczyk

Title: Evaluation of nectin-3 protein expression in tissue specimens taken from patients with diagnosed gastric cancer treated at the University Clinical Hospital in Bialystok

Abstract No. 13

Nectin-3, also known as PVRL-3, PRR-3 or CD113, is a adhesive molecule that interacts with a variety of other proteins, including Nectin-1, Nectin-2, Nectin-3 (through homophilic interactions), PVR, Nectin-1, Nectin-2, TIGIT, PDGF.R and Integrin. Within cells, it functions as an immune receptor, contributing to cell adhesion processes. It is involved in a number of developmental processes, including those of the eyes, teeth, inner ear, cortex, axons and synapses, and spermatogenesis. Abnormalities in the expression of Nectin-3 can lead to pathology in the above-mentioned organs, as well as to the development of neoplastic conditions in many other tissues. Deregulation of its expression has been demonstrated in breast cancers, ovarian cancers, pancreatic adenocarcinomas, lung adenocarcinomas and colorectal cancer.The objective of this study is to evaluate the expression of nectin-3 in tissue preparations from patients diagnosed with gastric cancer treated at the University Clinical Hospital in Bialystok.Matherials and methods: The present study was conducted on a group of 65 patients diagnosed with gastric cancer. The expression of Nectin-3 in tissue material was assessed by immunohistochemistry. The expression levels of Nectin-3 were then correlated with various parameters, including patient age, sex, lesion diameter, location, histological type, degree of histological malignancy, degree of tumour infiltration, presence of h.pylori infection, tumour type, type in the Lauren classification, infiltration of tumour cells into lymphatic and blood vessels, presence of lymph node metastasis, distant metastasis and patient survival.Results: The results of the study demonstrated positive reactions in the glandular cells of normal gastric mucosa, with the highest intensity observed in the lining cells. In contrast, cytoplasmic expression of medium intensity was

observed in tumour cells in 46% of the cases studied. Higher expression of nectin-3 was more frequently observed in cases of tumours with intermediate histological differentiation, while loss of expression of this protein was more frequent in undifferentiated carcinomas (p=0.048). Higher expression of this protein was also present in the intestinal type according to the Lauren classification (p=0.047).In the diffuse type of cancer, the expression of nectin-3 was at a lower level. No statistically significant correlations were observed with the other clinical and pathological parameters or with patient survival.Conclusions: The loss of nectin-3 expression is associated with more malignant types of histological types of gastric cancer.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Tomasz Kowalczyk, Adam Krętowski, Michał Ciborowski, Grzegorz Młynarczyk, Dominik Cysewski

Title: Profiling the Proteome and Phosphoproteome of Testicular Cancers (Germ Cell Tumors)

Abstract No. 16

Testicular cancer (TC) constitutes approximately 1% of adult cancers and around 5% of diagnosed urological cancers, with germ cell tumors (GCTs) representing the predominant histopathological subtype (90–95% of cases). The aggressive metastatic potential of TC, particularly to retroperitoneal lymph nodes, mediastinum, lungs, brain, liver, and bones, underscores the necessity for a detailed understanding of the underlying molecular mechanisms driving its rapid progression.To elucidate the molecular alterations associated with TC, we conducted comprehensive proteomic and phosphoproteomic analyses of tissue samples. Proteins were trypsin-digested, separated via nano-liquid chromatography (nanoLC) coupled with an Orbitrap Fusion mass spectrometer, and subsequently processed using PEAKS 11 software. Phosphoproteins were enriched utilizing Ti-IMAC beads and analyzed similarly. Our analyses successfully quantified over 5,000 proteins and over 1,000 phosphoproteins across ten samples.Results indicated significant upregulation of biochemical pathways in tumor tissues, particularly involving immune response modulation, cell signaling, cytoskeletal organization, and proteasome activity. Specifically, increased expression was observed for proteins of the Actin-Related Protein 2/3 Complex family, along with immune-related proteins, including HLA-DPA, HLA-DPA1, and B2M, which are crucial for antigen presentation via MHC class I and II pathways. Additionally, proteasomeassociated proteins exhibited elevated expression levels in tumor samples.Phosphoproteomic analysis identified approximately 400 proteins that differentiate tumor tissues from controls, predominantly involved in regulating cellular structures, metabolic processes, cytoskeletal organization, and immune system functions, thereby

corroborating findings from the global proteome analysis. Notably, phosphoproteins such as KIF5B and LRRFIP1 showed increased expression in cancerous tissues, further suggesting their indirect involvement in modulating immune responses and reinforcing our proteomic observations.These findings significantly advance our understanding of testicular cancer at the molecular level, potentially guiding the development of targeted therapeutic strategies and novel diagnostic or prognostic biomarkers.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Magdalena Miniuk

Title: “PD-L1 and CTLA-4 as a predictive biomarkers in the head and neck squamous cell carcinoma (HNSCC)''

Abstract No. 17

Head and neck squamous cell carcinoma (HNSCC), characterized by high aggressiveness and frequent metastasis to regional lymph nodes, is the sixth most common cancer worldwide. It accounts for 95% of cancers in the head and neck area.
According to the latest projections, the number of new HNSCC cases will increase by 40% over the next 16 years. Despite advancements in therapy, including immunotherapy with immune checkpoint inhibitors, surgery, radiotherapy, and chemotherapy, survival rates for patients with advanced HNSCC still remain unsatisfactory.The aim of the study is to assess the expression of immune checkpoint molecules such as PD-L1 and CTLA-4 in squamous cell carcinoma in primary lesions and recurrences, in correlation with selected clinical and pathological parameters. These molecules can be considered as potential biomarkers for further use in immunotherapy.The study was conducted on formalin-fixed samples(N=425), archived as paraffin blocks at the Academic Center for Pathomorphological and GeneticMolecular Diagnostics, UMB. The studied material comes from biopsy specimens of primary tumors (histopathologically confirmed as squamous cell carcinoma of the oral cavity) and recurrences of patients from the maxillofacial and plastic surgery clinic dating from 2011-2023. In cases of neck lymph node surgery, diagnostic tissue material from the removed lymph nodes was also analyzed. The material was divided into several groups (10) based on the location of the tumor, its stage according to TNM, and the tumor differentiation (G scale). The tissue was subjected to immunohistochemical analysis. For the PD-L1 and CTLA-4 protein expression assessment, monoclonal antibodies were used, and the staining reaction was checked under a light microscope (20X). The Combined Positive Score(CPS) was calculated.The study consisted of 287 men and 140 women. The majority of

the participants(65.11%) had a tumor grade of G2. A tumor classification of T2N0 was observed in the highest proportion of participants(18.27%). The results of the analysis indicated significant correlations between the expression of CTLA-4 and PD-L1 molecules and selected clinical and pathological parameters in patients with HNSCC. It was observed that individuals with lower CTLA-4 expression were older comparing to those with higher expression of this protein. It was found that CTLA-4 expression was strongly associated with PD-L1 expression, indicating their potential for the use in immunotherapy as biomarkers. The CTLA-4(score=0) group, showed a higher percentage of cells with no PD-L1 expression(TPS=0) , similarly to the CTLA-4(score=1) group. No significant correlations were found between the gender of the participants and the expression of individual biomarkers[$p>0.05$], which may indicate the lack of gender influence on immunotherapy outcomes. Further research is crucial for better understanding the molecular mechanisms associated with HNSCC and developing effective therapies.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Beata Kulikowska

Title: Genotype-Phenotype Correlation in Women with Hereditary Breast Cancer from the Podlaskie Voivodeship

Abstract No. 18

Breast cancer is the most common malignant tumor in women worldwide. In the Podlaskie Voivodeship, 598 cases were recorded in 2022, making up nearly 25% of all malignant tumors in the region. Among key risk factors, genetic predisposition, including hereditary germline mutations, plays a crucial role.Hereditary breast cancer accounts for 5–15% of cases, with BRCA1 and BRCA2 mutations being the most significant, contributing to 25% of hereditary cases. Other mutations, such as PALB2 and CHEK2, also increase the risk.AIM OF THE STUDYThe main aim of the study was to assess the genotype-phenotype correlation in women with hereditary breast cancer in the Podlaskie Voivodeship.MATERIALS AND METHODSThe study included 600 female patients diagnosed with breast cancer who attended the Genetics Clinic at the Podlaskie Medical Center "Genetics" between 2018 2023. Two groups were distinguished: one consisting of breast cancer patients who were carriers of germline mutations in the BRCA1, BRCA2, CHEK2, and PALB2 genes, and the other comprising breast cancer patients in whom no mutations were detected. The study analyzed the frequency of BRCA1, BRCA2, CHEK2, and PALB2 mutations in breast cancer patients. Additionally, the frequency of specific mutation variants among carriers was assessed. Correlation analyses were conducted to examine the relationship between mutation presence and the triple-negative breast cancer (TNBC) subtype, bilateral breast cancer, and age at diagnosis.CONCLUSIONAmong the 600 breast cancer patients who attended the Genetics Clinic at the Podlaskie Medical Center "Genetics" between 2018 and 2023, 19.33% (95% CI: 16.2% – 22.7%) were carriers of a mutation in one of the BRCA1, BRCA2, CHEK2, or PALB2 genes. The most frequent mutation was in CHEK2 (11.2% 95% CI: 8.8%–13.9%), with c.470T>C accounting for 73.13% of cases. BRCA1 mutations were found

in 7.17% (95% CI: 5.23%–9.53%) of patients, with c.5266dupC (51.16%), c.181T>G (13.95%), and c.4035delA (6.98%) being the most common.A statisticaly significant association was observed between BRCA1 mutations and TNBC (p = 0.007), with carriers being 3.45 times more likely to develop TNBC (OR = 3.45 95% CI: 1.33–8.93). No such association was found for BRCA2, CHEK2, or PALB2. Similarly, no significant correlation was observed between these mutations and bilateral breast cancer (p > 0.05). Patients with BRCA1, BRCA2, CHEK2, or PALB2 mutations were diagnosed significantly earlier than noncarriers (p = 0.0022These findings confirmed that three mutations in BRCA1 gene (c.5266dupC , c.181T>G, c.4035delA) are the most frequent and are founder mutations in native Polish population. The crucial role of the BRCA1 mutation in TNBC development was pointed. Mutations in BRCA1, BRCA2, CHEK2, and PALB2 were associated with earlier onset of breast cancer, what may have important implications for diagnostic and preventive strategies.

Book of Abstracts

Session:
O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Klaudia Kołakowska

Title: The expression of chemerin and chemerin receptor in ovarian cancer

Abstract No. 19

Introduction: Ovarian cancer is the fifth most common cause of cancer-related fatalities in women and is characterised by unfavourable prognosis. Therefore, there is a core need to investigate novel diagnostic markers in ovarian cancer. Adipose tissue surrounding ovarian cancer is a crucial factor contributing to the development of ovarian cancer. Scientific research proves that adipokines facilitate crosstalk between adipocytes and cancer cells. Chemerin, one of adipokine, has been shown to play a significant role in the pathogenesis of ovarian cancer. However, novel studies on the role of chemerin have yielded inconsistent results. It was acknowledged that chemerin exerts both anti-cancer and tumor-promoting effects on ovarian cancer.The aim of the study: The aim of this study was to assess the expression of chemerin and chemerin receptor (CMKLR1) in ovarian cancer and to evaluate their correlation with clinicopathological parameters, cancer markers and BRCA 1, BRCA 2 mutation status.Materials and methods: The study group consisted of 15 patients with ovarian cancer, including serous, endometroid, small cell, seromucinous ovarian cancer. The control group included non-neoplastic ovarian tissues (n=9). The expressions of chemerin, CMKLR1, p53, Wilms tumor gene product (WT1), estrogen receptor (ER) and progesterone receptor (PR) were assessed using immunohistochemical method. The intensity of chemerin and chemerin receptor expression was scored from 0 to 3 (0 = negative, 1 = weak, 2 = moderate, and 3 = strong). The status of BRCA 1 and BRCA 2 mutation was assessed using New Generation Sequencing. Moreover, the relationships between the expression of chemerin, CMKLR1, cancer markers and clinical data were analyzed.Results: Chemerin was detected in 80% of ovarian cancer samples and in 44.44% of non-neoplastic ovarian tissue samples. Whereas CMKLR1 was expressed in 53,3% of ovarian cancer tissues and in 66.67% of non-neoplastic ovarian tissue samples. The expression of chemerin in the ovarian cancer

samples was significantly higher than in the non-neoplastic ovarian samples (p = 0,0373). Moreover, chemerin expression was higher in ovarian cancer samples with positive expression of PR than in ovarian cancer samples with negative expression of PR (p = 0,0095). There was a statistically significant relationship between chemerin expression and vascular invasion (p = 0.047). Furthermore, there was no correlation between chemerin or CMKLR1 expression and BRCA 1, BRCA 2 mutation status. Conclusion: Our findings indicate that chemerin is highly expressed in ovarian cancer. Moreover, chemerin may exert tumorpromoting effects by enhancing vascular invasion.

Book of Abstracts

Session:

O2 Basic Sciences PhD

AULA 2

FRI 25.04.2025 09:30-11:30

Authors: Weronika Anna Jurgiel, Barbara Panasiuk, Renata Posmyk

Title: The frequency of BRCA1 and BRCA2 gene mutations in the population of women with ovarian cancer in the Podlaskie Voivodeship

Abstract No. 20

Ovarian cancer is one of the most aggressive gynecological malignancies, characterized by late diagnosis and high mortality. Due to its nonspecific symptoms, the disease is often detected at an advanced stage, significantly complicating effective treatment. It is estimated that 10–25% of ovarian cancer cases have a hereditary basis, with BRCA1 and BRCA2 gene mutations playing a key role in this group. Germline mutations in these genes lead to a significantly increased risk of developing not only ovarian cancer but also breast cancer and other malignancies. Women carrying BRCA1 mutations have an estimated 40–60% lifetime risk of developing ovarian cancer, while for BRCA2, the risk is 10–25%. AIM OF THE STUDYAssessment of the frequency of germline mutations in the BRCA1 and BRCA2 genes in the population of women with ovarian cancer in the PodlaskieVoivodeship.MATERIALS AND METHODSThe study included 300 women with histopathologically confirmed ovarian cancer who attended the Genetics Clinic at the Podlaskie Medical Center "Genetics" between 2018 -2024. The patients were divided into two groups: the first group consisted of women in whom somatic mutations were detected

in the tumor, while the second group comprised patients without detected mutations. The analysis focused on mutations in the BRCA1 and BRCA2 genes, which play a key role in DNA repair processes and whose presence may influence tumor development. Additionally, women with confirmed somatic mutations underwent blood testing to determine whether the mutation was germline (hereditary).CONCLUSIONSAmong 300 patients with ovarian cancer, 82/300 (27.33%) (95% CI: 22.4% – 32,7%) somatic mutations were detected in the tumour in the BRCA1 or BRCA2. 42/300 (14%) (95% CI: 10,3% –18,4%) of patients had mutations in their blood in BRCA1 or BRCA2. Mutation in the BRCA1 31/300 (10.3%) (95% CI: 7.3% – 14.3%) occurred more frequently than mutations in BRCA2 9/300 (3%) (95% CI 1.6% –5.6%). The most common mutation in the BRCA1 was c.5266dup, which accounted for 13/31 (41.9%) (95% CI: 26.4% – 59.2%) of all mutations in BRCA1. The second most frequent mutation was 4035del 9/31 (25.8%) (95% CI: 13.7% – 43.2%), followed by: c.181T>G 6/31 (19.4%) (95% CI: 9.2% – 36.3%), c.2043dup 1/31 (3.2%) (95% CI: 5.7% – 16.2%) and c.3756_3759del 1/31 (3.2%) (95% CI: 5.7% – 16.2%). This study showed that three mutations in the BRCA1 (c.5266dupC, c.181T>G, c.4035delA) are among the most common and represent founder mutations in the Polish population. To assess the effect of the mutation on the age of onset, data from 300 patients were analysed comparing the mean age of onset in the groups with and without the blood mutation. The normality of the distribution was assessed using the Shapiro-Wilk test. The Student's t-test was used and showed a significant difference ($t = 4.26$, $p < 0.0001$). Patients with the mutation developed the disease on average 7.34 years earlier (53.83 vs. 61.18 years.

Book of Abstracts

Session

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Urszula Kuszel, Aleksandra Komendo, Wiktoria Kiełek

Title: Flavonoids as acetylcholinesterase inhibitors: basic framework of SAR using an in vitro model

:

Abstract No. 21

Flavonoids, which are secondary plant metabolites, have been a part of the human diet for a long time due to their health benefits. They can be classified into different groups based on their substitution patterns, which are closely related to their health-promoting activities. Therefore, studies that explore structure-activity relationships can help predict the biological activities of both well-known and newly discovered flavonoids. This group of compounds is considered vital for many applications in nutraceuticals, pharmaceuticals, medicine, and cosmetics. Alzheimer's disease has become a significant cause of dementia over the years, and the primary class of drugs used to treat it is acetylcholinesterase inhibitors. While synthetic drugs are available, natural origin drugs offer additional pharmacological benefits and can help reduce the undesirable side effects of treatment. AIM OF THE STUDY Our study aimed to describe the structure-activity relationships of flavonoids as acetylcholinesterase inhibitors using an in vitro model, as well as to conduct kinetic studies on the most active compounds. MATERIALS AND METHODS Twenty-eight different flavonoids were examined for their ability to inhibit acetylcholinesterase using spectrophotometric methods. Galantamine, a well-known natural acetylcholinesterase inhibitor, served as a positive control. Based on the IC50 values, we selected the most active compound and conducted kinetic studies. The kinetic parameters (Ki, Vmax, and Km values) were determined using Lineweaver-Burk and Dixon's plots. Statistical analysis was performed using GraphPad Prism 9 and Microsoft Excel 2019. RESULTS Only a few of the compounds tested exhibited moderate inhibitory activity: 7,8-dihydroxyflavone, luteolin, and apigenin. Due to its superior activity, 7,8-dihydroxyflavone was chosen for kinetic studies. These studies revealed that this compound acts as a non-competitive

inhibitor of acetylcholinesterase. CONCLUSIONS The results of this study allowed us to identify specific structural characteristics of flavonoids that facilitate acetylcholinesterase inhibition, notably the presence of a hydroxyl group (OH) at C7 in the benzo-γ-pyrone ring of the molecule.

Book of Abstracts

Session

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Aleksandra Opęchowska, Sandra Murawska

Title: Immune checkpoint inhibitors (ICIs) in non-small cell lung cancer (NSCLC) – the immunological background for their efficacy in an in vitro model

Abstract No. 22

Lung cancer is one of the most prevalent malignancies and, unfortunately, it remains associated with high mortality rates regardless of gender. Non-small-cell lung cancer (NSCLC) accounts for about 85% of all lung cancers. Despite the combination of surgical resection, chemotherapy, and radiotherapy, treatment outcomes remain unsatisfactory. However, the application of immunotherapy, particularly immune checkpoint inhibitors (ICIs), has improved patient prognosis in NSCLC. Nevertheless, despite extensive research into the immunological responses to ICIs in lung cancer, our understanding remains incomplete.AIM OF THE STUDY: Our study aimed to assess anticancer immunological responses modulated by immune checkpoint inhibitors in the NSCLS in vitro model.MATERIALS AND METHODS: NSCLC cell line A-549 and H2030 cells were cultured in the presence of healthy PBMC and selected immune checkpoint inhibitors: anti-CTLA-4, anti-PD-1, and anti-PD-L1. After 48 hours, the proliferation and viability of cancer cells were assessed via flow cytometry. Similarly, PBMCs were also collected to evaluate the differences in their activation status. Additionally, the profile of secreted cytokines was evaluated in the cell culture supernatants. RESULTS: First, the anti-PD-L1 was only able to further reduce the proliferation of H2030 cancer cells compared to the co-culture with PBMC alone. Interestingly, a significantly different effect was observed in the A549 cell model. Subsequently, we demonstrated visually that blockage of the selected immune checkpoint proteins improved the effective reduction of lung cancer cell expansion in co-culture. Furthermore, we confirmed that application of ICIs did not affect lymphocyte viability. We also observed that the profile of secreted pro- and anti-inflammatory cytokines was varied in used cell line models. CONCLUSION: Our study revealed that ICIs modulate immunological response in a way that allows the maintenance or improvement of at least

the anti-cancer effects obtained in the co-culture of lung cancer with PBMCs. These findings provide a foundation for further research on the effects of ICIs on anti-cancer responses and their potential application in NSCLC therapy.

Book of Abstracts

Session

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Natalia Jankowska

Title: Evaluation of the combined effect of pertuzumab with a new thiazolidinone derivative on the autophagy process in AGS gastric cancer cells”

Abstract No. 23

Gastric cancer is one of the most common malignant tumors around the world. In Poland, the incidence of this type of cancer is higher than in other European countries. There are many risk factors like smoking, male gender, bacterial infections. Symptoms of gastric cancer in early stages mainly include dyspeptic symptoms. In later stages weight loss and persistent upper abdominal pain may be observed. Treatment depends on the stage and extent of the disease and metastates. Surgical removal, chemotherapy and radiotherapy are possible. In cancer treatment biological drugs, obtained from cells cultured in vitro are getting more importance. They are used in target therapy aimed against structures specific for cancer cells, not affecting the healthy cells at the same time. To biological drugs we can include monoclonal antibodies such as pertuzumab connecting with subdomain II of receptor HER2. It is used in treatment of cancers with progression of this type of receptors like breast or gastric cancer. Thiazolidinones are promising group of compounds with a very broad biological activity. Through appropriate modifications compounds with various use like antidiabetic, analgetic, anticancer and much more can be obtained. The pharmacological activity of these compounds results from various mechanisms of action. The aim of this study is to assess the effect of pertuzumab in combination with new thiazolidinone derivative (Les-1) on the process of autophagy in AGS gastric cancer cells. The study compared the effect of Les-1 compound in monotherapy to its effect in combination therapy with pertuzumab. The influence of monotherapy and combined action of Les-1 with pertuzumab on the survival of gastric cancer cells, DNA biosynthesis, the concentration of autophagy markers such as LC3A, LC3B, and beclin-1 were evaluated.

Additionally, the concentration of pro-inflammatory cytokines IL-6 and IL-8 as well as the antiinflammatory cytokine IL-10, were also examined. It was demonstrated that the combination of Les-1 with pertuzumab more effectively reduced the survival of AGS gastric cancer cells compared to Les-1 in monotherapy. The studied compound in combination with anti-HER2 antibody, more intensely inhibited the process of DNA biosynthesis, and also reduced the concentration of autophagy markers LC3A, LC3B and beclin-1. Such a strategy of combined action more significantly decreased the concentration of proinflammatory cytokines IL-6 and IL-8 and led to increase in the level of antiinflammatory IL-10. This study highlights the promising potential of Les-1 with anti-HER2 antibody as gastric cancer treatment strategy, but further in-depth investigation of their molecular mechanisms of action is required.

Session

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Hanna Krafzik, Julia Majewska

Title: Histopathological characterization of ultra-rare PACS2 syndrome in a murine model

Abstract No. 24

PACS2 syndrome (PS) is an ultra-rare genetic disorder caused by de novo mutation (PACS2E209K and PACS2E211K). PS is primarily characterized by seizures, neurodevelopmental delays, hypotonia, speech, and motor skill delay, as well as behavioral disturbances. However, some patients experience additional organ involvements such as ocular abnormalities, limbs malformations or cardiac and kidney dysfunction. The diverse clinical manifestations of PS are directly related to the multifaceted functions of the PACS2 protein, which is involved in intracellular protein transportation, and subsequently in apoptosis regulation, maintaining mitochondrial function and stress response. The PACS2E209K and PACS2E211K mutations are believed to disrupt tissue homeostasis, potentially driving numerous pathological processes.In this study, we conducted the first histological characterization of tissues from a murine model of PS. We selected liver, lung, and kidney tissues for evaluation, given their susceptibility to internal and external stressors and the potential impact of altered PACS2 protein function on their structural integrity.Adult PS mice (+/E209K) and wild-type control mice (+/+) aged 10–12 weeks (n=6 per group) were sacrificed for tissue collection. During tissue collection, we observed signs suggestive for fibrosis, which prompted further investigation at the molecular level. Hematoxylin and eosin staining was performed for basic structural analysis. Additionally, collagen deposition and calcium accumulation were examined using trichrome and von Kossa staining, respectively. To further explore processes potentially linked to fibrotic changes, quantitative PCR was utilized to measure expression levels of remodeling-associated genes, including collagens (types 1, 3, 5, 6, 15, 22, and 24), matrix metalloproteinases (MMPs: 2, 3, 9, 13, 19, and 25), tissue inhibitors of metalloproteinases (TIMPs: 1, 2, 3, and 4), vimentin, and smooth muscle α-actin (Acta2). Statistical analyses were conducted using Student's T-tests.Comparative analyses did not show statistically significant differences for most evaluated parameters. However, histopathological

examination revealed aberrant collagen deposition in liver tissues of PS mice, alongside altered gene expression levels in liver and lung tissues. These findings provide initial evidence of a potential predisposition towards fibrosis in PS.
Importantly, the murine model used represents young adult PS. Since no adult patients with
PS have been documented, this murine model provides valuable insights into disease progression in older individuals, potentially enabling the early detection of pathological changes and the introduction of preventive therapies that could limit the adverse consequences of PS.These results serve as preliminary indicators of pathological development in PACS2 syndrome, potentially guiding future studies toward identifying prognostic markers and therapeutic strategies for patients with PS.

Book of Abstracts

Session:
O3 Basic Sciences
AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Diana Zavodiak

Title: Synthesis of fused thiazole derivatives as potential endocytosis inhibitors

Abstract No. 25

Endocytosis is a complex cellular process that supports cell migration, regulates intracellular signaling pathways, and plays a vital role in various biological functions. From a medicinal chemistry perspective, endocytosis is an interesting research target, as it contributes to oncogenesis by deregulating multiple endocytic proteins and facilitates viral entry by interacting with the outer membrane. Among thiazolidinone derivatives, which serve as precursors for the synthesis of fused thiazole derivatives, several inhibitors of endocytosis have been identified. Consequently, the development of novel thiopyrano[2,3-d]thiazoles and pyrazolo[3,4-b]thiazolo[5,4-e]pyridines as potential endocytosis inhibitors represents a well-founded and promising research direction. Aim of the study. To synthesize new fused thiopyrano[2,3-d]thiazoles and pyrazolo[3,4-b]thiazolo[5,4-e]pyridines as potential endocytosis inhibitors and to evaluate their drug-likeness and toxicity properties. Matherials and methods. Organic synthesis, NMR spectroscopy, LCMS, drug-likeness evaluation, ADME parameter prediction, and toxicity assessment. Results. The target thiopyrano[2,3d]thiazoles were obtained via a hetero-Diels-Alder reaction between 5-(4-(3-(dimethylamino)propoxy)benzylidene)-4-thioxothiazolidin-2-one and suitable dienophiles (norbornene, N-substituted maleimides, and 3a,4,7,7a-tetrahydro-1H-4,7methanoisoindole1,3(2H)-diones) in acetic acid for 2 hours. The same reaction conditions were applied to synthesize pyrazolo[3,4-b]thiazolo[5,4-e]pyridine by reacting 5arylideneisorhodanine with 3methyl-1H-pyrazol-5-amine. The structures of the synthesized compounds were confirmed through spectral analysis techniques. To evaluate their potential drug-likeness and toxicity, the online tools SwissADME and ProTox 3.0 were

utilized. The synthesized derivatives are currently undergoing screening for endocytosis inhibition properties at the Gustave Roussy Institute (France).

Conclusion. Newly synthesized thiopyrano[2,3-d]thiazoles and pyrazolo[3,4b]thiazolo[5,4e]pyridines, which have not been previously reported in the literature, were developed to assess their pharmacological profile, focusing on their potential to inhibit endocytosis. Funding. The research leading to these results has received funding from the National Research Foundation of Ukraine, under the project numbers:

2023.05/0021 and 2023.03/0104.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Maja Grądziel

Title: The role of chrysin in modulating platelet activation in an in vitro model

Abstract No. 26

Flavonoids are secondary metabolites found in plants that have been extensively utilized in the prevention of cardiovascular diseases. One of their most significant properties is their potential antiplatelet activity. However, the potential of flavonoids in this regard is still not fully understood. This is particularly important given the rising number of patients affected by cardiovascular conditions.AIM OF THE STUDYThe aim of this study is to investigate chrysin's (CH) antiplatelet activity (platelet secretion, aggregability, and procoagulant response) of chrysin in the presence of different platelet agonists, i.e. collagen (type I), adenosine diphosphate (ADP), and stable analog of the thromboxane A2 receptor agonist (U46619) in platelet-rich plasma (PRP), in an in vitro model.MATERIALS AND METHODSIn the study, human venous blood (9 mL) from healthy volunteers (22–39 years old) was collected with minimum trauma and stasis needle into 10 mL PP tubes containing 1 mL of 130 mM trisodium citrate. All procedures were conducted in accordance with the principles of Declaration of Helsinki and the study was approved by the local Ethics Committee on Human Research. PRP was obtained by centrifugation of whole blood at 200×g for 20 min at ambient temperature. Final, 200 µM concentration of CH was added to PRP with different platelet agonists, i.e. collagen, ADP and U46619 and measured platelet secretion (quantified as Pselectin exposure) aggregability (measured as fibrinogen binding) and procoagulant response (evaluated as phosphatidylserine (PS) exposure) on flow cytometry.RESULTSStimulation of platelets by agonists, e.g. collagen, ADP or thromboxane A2 (or its mimetics) results in activation of GPIIb/IIIa (fibrinogen receptor, supporting platelet aggregation), release of molecules stored in secretory granules (e.g. P-selectin), and

exposure of phosphatidylserine (PS) on the outer monolayer of platelet cell membrane. During the course of our research, we observed that CH is a broad- range inhibitor of platelet responses triggered by different principal platelet agonists in a close-to-native platelet environment (platelet-rich plasma). The examined solution reduced collagen-evoked platelet secretion and PS exposure by 47% and 42%, respectively. ADPinduced secretion and aggregability was diminished by CH by 5% and 36%, respectively. Under the condition of the U46619-triggered secretion and aggregability, which was inhibited by CH by 20% and 27%, respectively.CONCLUSIONSChrysin (CH, 5,7dihydroxyflavone) exhibits antiplatelet activity in PRP, in an in vitro model. It would be valuable to carry out research aimed at a structure-activity relationship examination and revealing specific mechanism of the observed antiplatelet effects. This research suggests the potential of making use of plant species containing chrysin to prevent thrombosis and cardiovascular incidents.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Natalia Świsłocka

Title: Immunohistochemical expression of Tensins in panceratic ductal adenocarcinoma in correlation with clinicopathological parameters

Abstract No. 27

One of the highest mortality rate and aggressive course poses a pancreatic ductal cancer, which is a crucial clinical challange. Therefore, the aim of this study was to evaluate tensins expressions that could be markers in the diagnosis or prognosis of pancreatic cancer. Tensins are adhesive proteins that generally are involved in interior and exterior cell contact, control cell motility, regulates proliferation and apoptosis. Study was performed on a group of 22 patients diagnosed with pancreatic ductal carcinoma in Medical University of Bialystok Clinical Hospital. Expression of Tensin-1, Tensin-2, Tensin-3 and Tensin-4 proteins was evaluated by immunohistochemical method on tissue specimens. Data analysis of collected and rated clinicopathological parameters was performed in correlation with tensins expression. Results showed that Tensin-1 expression was observed in cancer cells' cytoplasm and secreted into cancer glands in 15/22 cases (68.2%). Tensin-4 expression was positive in cancer cells' cytoplasm in 7/22 (31.82%) cases. Tensin-2 and Tensin-3 proteins didn't show expression in pancreatic cancer cells. Statistical analysis revealed that Tensin-1 intraductal secretion occurred more frequently among patients with tumor diameter ≥2cm (p=0.023). Expression of Tensin-1 was observed less often with presence of necrosis in tumor and its medium and strong advancement level (p=0.042) and with occurence of haemorrhages in tumor (p=0.024). Tensin-4 expression occurred more frequently among females (p=0.021). Furthermore, positive expression of Tensin-4 was observed when necrosis was absent or strongly present in tumor mass (p=0.014). In conclusion, Tensin-1 and Tensin-4 proteins are involved in development of ductal pancreatic cancer, but not Tensin-2 and Tensin-3. Tensin-1 expression is associated with tumor growth. The fact that

cancer cells secrete Tensin-1 may be useful in further reaserches to assess its presence, for example in blood. Higher expression of Tensin-4 by pancreatic ductal carcinoma tumor cells may be predisposed by female gender and its' body system constitution (metabolism, hormones, composition). Tensin-4 may have a potential role in modulating pancreatic cancer cells' death and may be the topic for further study in regulation of necrosis.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Marta-Tetiana Shvahla

Title: Experimental Study Of The Wound Healing And Regenerative Properties Of Aloe VeraBased Oinment

Abstract No. 28

Due to ongoing hostilities in Ukraine, the number of thermal injuries among civilians, particularly children, has significantly increased, that requires beneficial and accessible local treatment methods. Traditional burn therapies, especially antibiotics, are not always provided, highlighting the need for the development of alternative approach based on natural components. Aloe vera-based ointment, has potential ability to improve the healing of burn wounds in children by accelerating epithelialization, reducing swelling, and alleviating pain at the site of injury, due to its antimicrobial, antiinflammatory, regenerative and analgesic properties.Purpose of the study. To evaluate the effectiveness of an aloe verabased ointment in the treatment of thermal injuries, that will help justify its use as a safe equivalent to a local treatment among children.Materials and methods. The study was conducted on guinea pigs with the compliance of European Convention for the protection of vertebrate animals used for research and other scientific purposes Strasbourg, 18 March 1986. Under general anesthesia with ether were induced local thermal skin injuries. The burns were created using a metal plate heated to 230°C in an open flame. An aloe verabased ointment was applied to the affected areas once daily for two weeks. The effectiveness of the treatment was evaluated using a visual observation scale of the formation of posttraumatic secondary skin structures.Research results. The application of the aloe verabased ointment had a notable impact on wound healing dynamics in thermal injuries. By the second week, treated wounds demonstrated accelerated tissue regeneration, attributed to faster inflammation resolution, enhanced epithelialization, and reduced scar formation compared to untreated areas. The wounds that received treatment

showed a greater degree of structural recovery, as demonstrated by a quantitative evaluation utilizing a visual observation scale. This assessment indicated a statistically significant difference in the rate of healing between the experimental and the control areas.Conclusion. This research indicates that aloe vera-based therapy could be a valuable treatment for enhancing tissue repair in thermal injuries, due to its antiseptic, wound-healing, and anti-inflammatory properties, warranting further investigation.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Natalia Bagińska, Anita Bałdyga, Klaudia Dadura, Eryk Cimochowski

Title: Investigating the effect of clove oil and its antimicrobial interaction against clinical strains of Escherichia coli

Abstract No. 29

In the face of increasing bacterial resistance to antibiotics, there is growing interest in alternative treatments, including substances of natural origin. Clove (Eugenia Caryophyllata) and its extracts exhibit antiseptic, antimicrobial, anti-inflammatory and antioxidant properties, as well as supporting the immune system and alleviating symptoms of infection. Escherichia coli, a gram-negative bacilli of the Enterobacterales family, is a significant clinical problem, especially in patients with risk factors, contributing to the development of systemic infections and resistance mechanisms. The combination of antibiotic therapy with natural active substances may offer a potential solution to the problem of increasing drug resistance.Aim of the study:The aim of this study is to assess the drug susceptibility of clinical E. coli strains, to analyse the interaction of clove oil with a representative of cephalosporins (ceftaroline) and secondgeneration fluoroquinolones (ciprofloxacin), and to determine the effect of clove oil alone on the isolates studied.Materials and methods:The study included 20 clinical E. coli strains isolated from patients of the Teaching Hospital in Bialystok as part of routine microbiological diagnostics. Identification of the strains was performed using the VITEK 2 system. Drug susceptibility was assessed using the disk diffusion method on MüllerHinton plates. Interpretation of the results was based on the measurement of zones of growth inhibition around the discs with antibiotic, oil and their combinations.Results:On the basis of the results obtained, the interaction of the oil with antibiotics was demonstrated in all the strains tested. 25% of the strains tested were sensitive to ciprofloxacin (5/20), 5% of the strains were moderately sensitive (1/20) and 70% of the strains showed resistance (14/20). In contrast, all strains

exhibited resistance to ceftaroline (20/20). The effect of ceftaroline was enhanced by clove oil in 75% of the strains tested (15/20), while ciprofloxacin was enhanced in 30% (6/20). Regression of the inhibition zones by at least 1 mm around the ceftaroline discs was shown in 10% (2/20) of the strains tested, while the ciprofloxacin discs in 70% of the strains tested (14/20). Conclusions: The results of the study indicate that clove oil shows a synergistic effect in combination with ceftaroline and an antagonistic effect in combination with ciprofloxacin among the clinical strains of E. coli tested. In addition, clove oil showed an effect on all the strains tested during our study.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Krystian Czolpinski, Bartosz Hanczaruk

Title: Asthma Inflammatory Phenotypes Shape Airway Remodeling in HDM-Exposed Models

Abstract No. 30

Asthma is a heterogeneous disease affecting 262 million people worldwide. Around 50% of asthmatic patients represent type 2 (T2)-low or non-type 2 driven inflammatory phenotype with an increased rate of exacerbations and impaired response to standard corticosteroid treatment. Chronic and suboptimally controlled airway inflammation may disrupt tissue repair mechanisms, resulting in progressive and often irreversible structural alterations collectively referred to as airway remodeling. Despite its clinical significance, asthmatic airway remodeling remains insufficiently characterized. One of the reasons is the limited availability of clinically relevant models that can reliably capture the dynamics of airway remodeling, thereby hindering both the mechanistic understanding of its development and progress.Therefore, here we aimed to characterize airway remodeling-associated alterations in house dust mite extract (HDM)-induced experimental asthma models mimicking T2-low and non-T2 asthma.In order to induce T2-low or non-T2 driven airway inflammation, C57BL6 mice were challenged with varying doses (10 or 100 µg) of HDM extract for 2 or 12 weeks. The isolated lungs were analyzed using histological techniques, transcriptomic profiling, and flow cytometry.First, we observed the distinct inflammatory phenotypes depending on varying doses of HDM extract and time of stimulation. Notably, the 2-week models showed an increase in the frequency of interleukin (IL)-4 and IL-10-producing T cells, whereas the 12week model represented the exclusive increase in IL-17-producing T cells. Interestingly, only in T2-low models, we observed an increase in the number of lung resident fibroblasts. Moreover, all investigated models were characterized by the dysregulation in the expression of genes clustered in collagens (Col), fibroblast growth factors (FGFs), proteoglycans, matrix metalloproteinases (MMPs) and their tissue inhibitors (TIMPs). Immunohistochemical staining revealed increased subepithelial

deposition of Col3a1 and total deposition of Col4a1 in all analyzed models. Moreover, we observed increased levels of MMP-8 and MMP9 in bronchoalveolar lavage fluid, uniquely present in the 12-week model. Finally, the TIMP-1 protein level was lower in 2week models, whereas TIMP-4 was increased only in 12-weeks model. In summary, we demonstrate that varying doses of house dust mite (HDM) extract, combined with differential exposure durations, elicit distinct asthma-associated inflammatory phenotypes, each linked to specific patterns of airway remodeling. These findings contribute to a better understanding of the mechanisms underlying airway remodeling in T2-low and non-T2 asthma endotypes.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Magda Mucha

Title: The comparison of the various phytocannabinoids effect on protein modifications in UVA irradiated human melanocytes cultured in vitro

Abstract No. 31

Melanocytes are specialized skin cells responsible for melanin production, which plays a crucial role in photoprotection, while these cells constantly exposed to solar radiation, including UVA, must counteract oxidative stress, a key factor in skin aging and pathology development. However, UVA exposure induces reactive oxygen species production, leading to lipid peroxidation and the generation of highly reactive nonsaturated aldehydes, such as 4-hydroxy-2- nonenal (4-HNE), that can modify proteins by forming covalent adducts. Therefore, there is a constant search for cytoprotective compounds, especially natural ones that do not generate side effects, that could eliminate the harmful effects of UVA radiation, e.g. by influencing intracellular signaling based on the 4-HNE. An examples of such compounds can be phytocannabinoids, including cannabidiol (CBD) and cannabigerol (CBG), which are increasingly used in cosmetology/dermatology.This study aimed to evaluate the levels of 4-HNE and its protein adducts in CBD or CBG treatedmelanocytes following their exposure to UVA. Measurement of lipid peroxidation products (GC/MS), as well as proteomic studies (based on SDS-PAGE/HPLC/MS-MS) were performed on melanocytes treated in vitro. Obtained results indicated that skin cells treatment with CBD/CBG both reduced the total level of both 4-HNE and 4-HNE-protein adducts. Moreover, used phytocannabinoids prevented UVA-induced modifications of proteins involved in antiapoptotic and antiinflammatory signaling (mainly serpins, kinases and proteins related to NFκB-dependent pathway). The findings of this study are significant in the context of skin photoprotection and oxidative stress management. Protein modification by 4-HNE disrupts their cellular functions and may contribute to apoptosis or malignant transformation.

Therefore, understanding the role of 4-HNE in melanocyte biology and the potential protective effects of cannabinoids could provide new insights into preventing UVA-induced cellular damage and skin dysfunction. Given the increasing exposure to solar radiation and its contribution to skin disorders, identifying novel protective strategies remains crucial.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Aleksandra Roszko, Kamil Kamiński, Krystian Czołpiński, Sylwia Księżak

Title: Unpacking the MSC Secretome: A Cell-Free Strategy to Modulate T2-low Asthma Inflammation

Abstract No. 32

The immunosuppressive properties of mesenchymal stromal cells (MSCs) have been confirmed in multiple preclinical models of various inflammatory diseases, including asthma. Despite their promising therapeutic efficacy, to date, only one MSC-based therapy has been approved by the Food and Drug Administration. Several critical safety and logistical challenges continue to hinder their broader clinical translation. These include: (1) the stability and functional consistency of both allogeneic and autologous MSC transplants (2) significant donor-to-donor variability and the associated difficulties in standardizing isolation, expansion, and characterization protocols (3) challenges related to long-term storage, viability, and potency of cryopreserved cells and (4) limited understanding of the safety and efficacy of repeated MSC administrations. To address the safety concerns associated with MSC-based therapies, we aimed to evaluate the therapeutic efficacy of MSC-derived extracellular vesicles (EVs) as a cell-free alternative, in comparison to their parental cells, for mitigating airway inflammation. C57BL/6 mice were challenged with house dust mite (HDM) extract in a dose of 100 µg for 5 consecutive days in each of the two weeks to induce type 2 (T2)- low airway inflammation. Additionally, on the 13 th day of the experiment, mice were administrated intranasally with EVs derived from either 1) cytokineprimed MSCs stimulated with a mixture of IFNγ, TNFα, interleukin (IL)-1β or 2) standard cultured media. Mice were sacrificed 72 hours after the final HDM extract and the lung tissue was collected for histological, flow cytometry and transcriptomic analysis. First, we confirmed that both types of extracellular vesicles attenuated airway inflammation in the HDM-induced experimental asthma model. Transcriptomic analysis of canonical and

noncanonical signaling pathways revealed a downregulation of arachidonic acid and lipid metabolism pathways in the group treated with primed mesenchymal stromal cell-derived EVs. In contrast, EV administration was associated with an upregulation of fatty acid degradation pathways. Furthermore, treatment with primed EVs resulted in a significantly greater reduction in the frequency of IL17-producing T cells, followed by an increased number of IL-10^{+} $CD3^{+}CD4^{+}$ cells compared to native EVs. In summary, we confirmed that MSCderived EVs have therapeutic efficacy and cytokines-primed MSCderived EVs might reflect the beneficial effects of originating cells more than nonprimed MSC-derived EVs in low Th2 airway inflammation.

Book of Abstracts

Session:

O3 Basic Sciences

AULA 3

FRI 25.04.2025 09:30-11:30

Authors: Michał Radzikowski

Title: Non-Steroidal Anti-Inflammatory Drugs in Diabetes Mellitus: Can Lornoxicam Mitigate Hyperglycemia-Induced Protein Glycation? An In Vitro Study

Abstract No. 33

Background: Diabetes mellitus (DM) is a growing global health challenge characterized by increasing morbidity. The primary pathological trigger in DM is chronic hyperglycemia, which initiates non-enzymatic protein glycation (NEPG). NEPG occurs through the spontaneous interaction of monosaccharide carbonyl groups with free amino groups of proteins, particularly lysine, cysteine, and arginine. This modification leads to structural and functional impairments in cellular and tissue proteins, contributing to microvascular and neuropathic disorders, including atherosclerosis, autonomic dysfunction, and diabetic nephropathy.Objective: Current pharmacotherapeutic strategies in DM primarily focus on reducing hyperglycemia however, persistent elevated glucose levels may render these approaches ineffective. Therefore, a growing interest is in identifying compounds capable of preventing NEPG. Non-steroidal anti-inflammatory drugs (NSAIDs) have been suggested to possess antiglycation properties. Lornoxicam, an oxicam-class NSAID, has not been extensively studied in this context. This study aimed to evaluate the antiglycation potential of lornoxicam using an in vitro bovine serum albumin (BSA) model.Methods: A 0.09 mM BSA solution was incubated with 1 mM lornoxicam and 0.5 mM fructose for ten days at 37°C. The extent of glycation was assessed and compared to a negative control consisting of 1 mM aminoguanidine and pioglitazone, known glycation inhibitors. The glycation product level (beta-amyloid, pentosidine, and advanced glycation end products (AGE)) was evaluated using fluorescence methods.Results: The concentration of all evaluated glycation products was significantly lower in BSA samples incubated with fructose and lornoxicam. Lornoxicam demonstrated significant antiglycation activity (similarly to aminoguanidine),

suggesting its potential as a novel therapeutic agent for preventing protein glycation in diabetic conditions.Conclusion: These findings indicate that lornoxicam may be a promising candidate for drug repositioning in diabetes management. However, further studies are required to confirm its antiglycation properties in animal and human models.

Book of Abstracts

Session:
O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Karolina Kozik

Title: Prevalence of Orthorexia Nervosa and Its Relationship with Eating Disorder Risk in Track and Field Athletes

Abstract No. 35

Orthorexia nervosa (ON), an obsessive pursuit of consuming only healthy food, has become a subject of interest in the context of eating disorders (ED). Currently, there is no consensus on whether ON should be classified as an ED due to its close connection with eating, or as an obsessive-compulsive disorder (OCD) due to the presence of symptoms typical of these disorders, such as intrusive thoughts and social isolation. Athletes are a group particularly at risk of developing both ED and ON. Despite numerous studies on the occurrence of ON among athletes, there is a limited amount of research specifically focusing on track and field athletes, especially in relation to the risk of ED.Aim of the study: The aim of the study was to assess the prevalence of ON and its association with the risk of ED among track and field athletes.Material and methods: A cross-sectional study was conducted using an online survey questionnaire in a contact form during sporting events, utilizing the DOS (Dusseldorf Orthorexia Scale) and EAT-26 (Eating Attitudes Test) questionnaires. The study involved 1008 (767 women, 241 men) track and field athletes. The inclusion criteria for the study involved membership in a sports club affiliated with the Polish Athletic Association and being in the age category of at least U16 (14 and 15 years old). The results were subjected to statistical analysis using Statistica 13.0. A significance value of $p < 0.05$ was considered statistically significant.Results: The prevalence of ON was found in 10.2% (N=103) of athletes, with 18.5%
(N=186) at risk of developing ON, and 87.0% (N=877) at risk of developing ED. The occurrence of ON was at a similar level regardless of gender, age category, and the athletes' performance level. Among those at risk of ED, 10.6% (N=93) were diagnosed with ON, and 18.4% (N=161) were at risk of ON. Among those treated for ED, 30.1% (N=28) had ON, and

29.0% (N=27) were at risk of ON, with the relationship being statistically significant ($p < 0.05$).Conclusions: The prevalence of ON and its risk are associated with treatment for ED among Polish track and field athletes.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Dominika Szczepańska

Title: The effect of liraglutide on body composition, insulin sensitivity and glucose metabolism in overweight or obese individuals

Abstract No. 36

Excess body mass is related to insulin resistance (IR) in skeletal muscle - reduced muscle glucose uptake, glycogen synthesis and lipid oxidation. Metabolic inflexibility is a reduced ability of skeletal muscle to switch from lipid to glucose oxidation and lower non-oxidative glucose metabolism (NOGM) in response to insulin. Research shows that liraglutide effectively promotes weight loss and improves indirect indexes of IR. However, its effects on body composition, glucose metabolism and insulin sensitivity
(IS) are not fully understood. AIM: To assess the liraglutide treatment impact on clamp IS, resting energy expenditure (REE), fat and lean mass, metabolic flexibility (ΔRQ), whole-body glucose and lipid oxidation and NOGM in overweight or obese individuals. MATERIALS AND METHODS: The 57 non-diabetic volunteers with overweight/obesity were randomized to 12 weeks of liraglutide treatment with dietary intervention (group D+L; n=30) or 12-week dietary intervention only (group D; n=27). Before and after intervention, all participants underwent anthropometric measurements, hyperinsulinemic euglycemic clamp (HEC), indirect calorimetry, and body composition analysis with dual-energy X-ray absorptiometry. IS was assessed by HEC. Whole-body glucose and lipid oxidation rates and REE were measured with indirect calorimetry. NOGM was measured as the difference between total glucose metabolism and oxidative metabolism in hyperinsulinemia during HEC. ΔRQ was measured as a change in respiratory quotient in response to insulin. RESULTS: The study groups did not differ in age, baseline weight, body composition, or IS assessed by HEC (all p <;0.05). After 12 weeks of intervention, a significant reduction in body weight in both groups (both $p < 0.001$) and improvement in IS (both p=0.011) was observed. We noticed a significant decrease in total fat mass and regional fat mass in both studied groups (all $p < 0.05$). A reduction in total lean mass and appendicular lean mass was higher in D+L (p=0.018; p=0.016, respectively). The decline of visceral adipose tissue mass and subcutaneous adipose tissue mass was similar in both groups. After intervention, glucose

and lipid oxidation remained unaffected in both studied groups but liraglutide treatment increased NOGM (p=0.036). There was no difference in ΔRQ in both groups. REE lowered significantly in the D+L group after intervention (p=0.014). CONCLUSIONS: Liraglutide treatment improves IS measured by HEC, possibly due to increased NOGM in insulin-stimulated conditions.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Dominika Szczepańska

Title: Assessment of the expression of selected cellular senescence genes in subcutaneous adipose tissue and their relationship to insulin resistance and metabolic syndrome in individuals with obesity

Abstract No. 37

Obesity significantly increases the risk of developing type 2 diabetes, dyslipidemia, hypertension and cardiovascular diseases. Body fat accumulation is a key factor in causing insulin resistance and the development of metabolic syndrome (MS). An important role in the development of these complications may be played by impaired adipogenesis - among other things, the inability of adipose tissue precursor cells to form new adipocytes. Recent studies indicate that fat cell senescence may be linked to impaired adipogenesis.AIM:The study aimed to evaluate the expression of selected genes associated with subcutaneous adipose tissue (SAT) senescence in individuals with obesity, with and without MS.MATERIALS AND METHODS:The study included 28 patients (18-50 years): 8 normal-weight individuals without metabolic disorders undergoing planned abdominal surgeries and 20 individuals with obesity (with BMI 42±3,9 kg/m2) undergoing planned metabolic surgeries: 12 with metabolic syndrome (MS+) and 8 without metabolic syndrome (MS-). Anthropometric measurements were performed and blood was drawn to determine the concentrations of selected biochemical parameters. The obtained results were used to calculate the indirect indicators of insulin sensitivity HOMA-IR and FLAIS. During procedures, 2 g of abdominal SAT were taken from all individuals. Gene expression analysis of selected markers of cellular senescence (TP53, CDKN1A, CDKN2A, GLB1) and genes related to adipogenesis (CEBPA, CEBPB, PPARG, ADIPOQ) and insulin signaling (IRS1, IRS2, AKT2, SLC2A4) was then performed with qPCR method.RESULTS:Insulin sensitivity assessed by FLAIS and adiponectin concentration were statistically significantly lower in the group with obesity (all $p < 0.003$). In subjects with obesity fasting glucose level, Cpeptide, triglycerides concentrations and HOMAIR were significantly higher in MS+ individuals compared to MS- individuals (all $p < 0.05$). In the SAT we showed higher expression of

CDKN1A, CDKN2A, GLB1 (all p<0.003) and lower expression of CEBPA, PPARG, SLC2A4 (all p <0.05) in individuals with obesity compared to the normal-weight group. In the SAT of MS+ individuals we showed higher expression of TP53 and lower expression of CEBPA, PPARG (all p <0,05) compared to MS- subjects. In the whole study population, expression of CDKN1A, GLB1 in the SAT negatively correlated with adiponectin levels, FLAIS and SLC2A4 expression in the SAT (all p <0,05) and positively correlated with C peptide and triglyceride levels (all p <0,05).CONCLUSION:The results suggest that processes related to cellular senescence in SAT may be associated with impaired adipogenesis and the development of metabolic disorders in human obesity.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Aleksandra Opęchowska

Title: Effectiveness of optic nerve sheath fenestration (ONSF) in preserving vision in idiopathic intracranial hypertension (IIH): a meta-analysis and systematic review

Abstract No. 38

Idiopathic intracranial hypertension (IIH), also known as "pseudotumor cerebri" or "benign intracranial hypertension," is a condition manifested mainly by vision disturbances, headaches, and dizziness. Despite extensive research. its etiopathogenesis remains vaguely understood. Most patients experience usually bilateral and symmetric papilledema, resulting from elevated intracranial pressure (ICP), which can lead to vision loss in severe cases. Therefore, the management of IIH aims to reduce elevated ICP. First-line therapy is based on non-surgical methods, i.e. weight loss and pharmacotherapy with diuretics. When nonsurgical methods fail, the therapy regimen engages surgical methods to decrease the elevated ICP.Aim of the study: In this meta-analysis we aimed to evaluate the cumulative effectiveness of Optic Nerve Sheath Fenestration (ONSF) in improving visual outcomes in patients with IIH. Materials and Methods: A meta-analysis was conducted using data from 19 studies, totalling 1159 observations. The improvement in visual acuity, the improvement in visual fields and reduction in papilledema were the main assessed outcomes after ONSF surgery. Comprehensive literature searches were conducted in the Ovid MEDLINE(R) and SCOPUS databases, following PRISMA guidelines. Statistical analyses employed a Generalized Linear Mixed Model (GLMM) to integrate proportion data, with heterogeneity assessed via Isquared and H statistics. Publication bias was evaluated using funnel plots, Egger's test, and Peters' test.Results: The analysis revealed that ONSF significantly improved visual acuity in 41.09% of patients, and visual fields in 76.34% of cases. The transconjunctival approach demonstrated higher success rates for visual field improvement. A high improvement rate of 97% was observed in reducing optic disc swelling. Significant heterogeneity was noted, particularly in visual acuity

(I2 = 92.1%) and visual field improvements (I2 = 73.8%), reflecting variability in surgical techniques and patient demographics. Publication bias assessments indicated no significant bias for visual acuity and visual field outcomes, although potential bias was detected for papilledema reduction.Conclusions: This meta-analysis confirmed that ONSF is effective in improving visual outcomes for IIH patients, especially when using the minimally invasive transconjunctival approach. Early surgical intervention is crucial for optimal results, principally in preventing advanced ischemic damage. Despite high success rates, observed heterogeneity highlights the need for standardized surgical techniques and further investigation into patient-specific factors influencing outcomes. Addressing potential publication bias and conducting more rigorous studies will enhance the reliability of future meta-analyses. Upcoming research in ONSF efficacy is needed to refine surgical practices and optimize patient care.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

O4 Clinical Sciences I
FRI 25.04.2025 09:30-11:30

Authors: Ahmed Reza Rezaei

Title: Mimicry under Electron Microscope: Solving the Misidentification of CoronavirusLike Structures in Human Tissues

Abstract No. 39

Electron microscopy is an important technique for detecting SARS-CoV-2 in human tissue, yet its limitations have led to misidentification of structures like viral particles. Clathrincoated vesicles, coatomer-coated vesicles, multivesicular bodies, and rough ER frequently mimic coronaviruses, leading to false reports of widespread viral presence. Such errors call for the need of specialist interpretation and complementary confirmatory techniques, as EM by itself is frequently not sufficient. Also, osmium tetroxide, which increases contrast, can disrupt antigen recognition, making it difficult to identify viruses in immunogold labeling.Aim of the StudyThis study discusses the instances of misidentification of coronavirus-like structures in human tissues and suggests remedial action based on morphological characteristics, immunohistochemistry (IHC), in situ hybridization (ISH), and expert opinion. It also analyzes the effect of osmium tetroxide on antigen preservation.Material and MethodsElectron micrographs of SARS-CoV-2-infected human tissues were analyzed to differentiate between mimicking structures and genuine coronavirus particles, according to size, presence of spikes, and membrane-bound localization. The effect of osmium tetroxide on viral contrast and antigenicity was assessed, with IHC and ISH data providing validation.ResultsMisidentified structures were found in various tissues with true SARS-CoV-
2 particles confirmed in e.g. the lung via IHC and
ISH.ConclusionEM is essential for viral detection, e.g. SARS-CoV-2, but mimicry poses a significant challenge. Experience, IHC, and ISH are necessary to prevent misinterpretation. Osmium tetroxide's effect on antigenicity should be considered when designing immunoelectron microscopy protocols.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Helena Żórawska, Paweł Niczyporuk

Title: Hyperbaric Oxygen Therapy: A Quick Intervention for Branch Retinal Artery Occlusion - a Case Series

Abstract No. 40

Retinal artery branch occlusion (BRAO) is an ophthalmic emergency that can lead to significant visual impairment. Among other things, the condition is often the result of cholesterol emboli, causing acute retinal ischemia and potential neuronal cell damage. Modern therapies are limited in their effectiveness, and there is often a lack of satisfaction with their outcomes. Hyperbaric oxygen therapy (HBOT) is an innovative approach that can affect retinal regeneration by improving tissue oxygenation.Methods: The analyzed case series includes patients of different ages who received HBOT at different time intervals from the onset of symptoms (5, 36 and 48 hours). All patients underwent daily HBOT sessions at 2.5 ATA, and improvement in visual acuity was monitored at follow-up visits.Results: Improvements in visual acuity and regression of both subjective and objective symptoms were observed in all cases. Beneficial effects were also noted in patients in whom therapy was initiated more than 24 hours after the onset of symptoms. Furthermore, the therapy was well tolerated, with no significant side effects recorded.Conclusion: HBOT has been shown to have efficacy as an adjunctive treatment in cases of BRAO, particularly within the reperfusion phase. The results observed in this study suggest the potential for expanding the therapeutic window and thereby enabling more effective treatment of patients with this condition.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Syczewska Martyna, Obrycka Maria

Title: The assessment of radioiodine therapy in patients with non-toxic goitre

Abstract No. 41

Non-toxic goitre is defined as a thyroid gland enlargement, associated with values of TSH, FT3 and FT4 within the reference range. Non-toxic goitres are generally benign, however they may lead to compressive symptoms or progress to toxic goitre. Due to the absence of a thyroid volume threshold for intervention, the treatment remains a concern. Traditional management includes surgery which carries associated risks including recurrent laryngeal nerve palsy, hypoparathyroidism and respiratory complications, levothyroxine therapy which tends to lower goiter volume in a limited number of patients and yet the gland volume tends to return to its baseline values when therapy is discontinued. As both methods are accompanied by adverse effects, radioiodine therapy (RIT) has emerged as an effective treatment modality for non-toxic goiters. This study aimed to evaluate RIT's efficacy in reducing thyroid volume with minimal risk of hypothyroidism in patients with non toxic goitre.We treated 147 patients from 21 to 77 years with 126 (86%) of the participants being female and 21 (14%) male. The initial 24-hour RAIU ranged from 22% to 44% and the effective half-life exceeded 3 days. Thyroid volume varied between 45 ml and 172 ml. All patients had their levels of serum TSH, fT3 and fT4 in normal range. To eliminate the possibility of malignant changes, a fine needle aspiration biopsy was performed to assess the alterations according to the Bethesda scale. The activity dose was determined using Marinelli's formula with values from 400 to 800 MBq. The absorbed dose ranged from 160 to 280 Gy. Follow up control including the assessment of serum fT4, fT3 and TSH was conducted every 6 weeks for a year post-RIT. Additionally thyroid ultrasonography and thyroid scans were performed prior to RIT and then one year following the procedure.12 months after radioiodine therapy, the average reduction in thyroid volume was 47% in all patients. Euthyroidism was maintained in 90% of the patients, while hypothyroidism developed in 10% of patients. The compressive symptoms such as dyspnoe, dysphagia, hoarseness which were present in 63 patients prior to treatment, have been

resolved.Radioiodine is non-invasive and safe method of therapy for reduction of goiter and should be used especially with those who have compressive symptoms. RIT allows maintenance of euthyroidism and may prevent the onset of overt hyperthyroidism, while simultaneously carrying a low risk of developing hypothyroidism.

Book of Abstracts

Session:

O4 Clinical Sciences I
AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Weronika Hojka, Anna Maria Lebensztejn

Title: CCR2 CCR4 CCR6 Chemokine Receptors In Patients With Tick-Borne Encephalitis

Abstract No. 42

Tick-borne encephalitis (TBE) is a serious disease of the central nervous system caused by TBE virus of the Flaviviridae family. Ticks are the main vector for both humans and animals. Chemokine receptors are significantly involved in the development of the disease, but it is not known exactly which ones are responsible for the inflow of leukocytes into central nervous system in TBE and how this relates to the clinical course. The aim of our study was to investigate the role of CCR2, CCR4, CCR6 receptors in the course of TBE and the differences in their occurrence in blood and cerebrospinal fluid (CSF). Methods: Our study included a group of 47 patients with TBE and the clinical severity score was calculated. The expression of CCR2, CCR4, CCR6 receptors was measured cytometrically using fluorochrome stained monoclonal antibodies with isotype controls in blood and CSF on activated Th lymphocytes (CD4+) and Tc lymphocytes (CD8+). The fraction of CCR2+, CCR4+, CCR6+ cells was measured and the median fluorescence index (MFIx) calculated based on the median fluorescence intensity of the positive cells. We analyzed the association of receptor expression with severity and age in TBE as a group. Data were analyzed with non-parametric tests at $p < 0.05$ significant. Results: CCR2, CCR4, CCR6 receptor expression differs between the blood and CSF. The fraction of CCR2-positive lymphocytes in CSF (MEDIAN=2.6%) is significantly higher than in blood (MEDIAN=1%). CCR2 (CD4+) receptor expression in blood in TBE was highest in elderly patients, while CCR6 (CD8+) receptor expression in blood in TBE was lowest in elderly patients. The highest CCR2 (CD4+) receptor expression in CSF correlates with a more severe disease course determined by severity score. Conclusions:
CCR2, CCR4, CCR6 receptors are involved in the pathogenesis of TBE, and their expression on T-lymphocytes significantly differs between CSF and blood. In our study, we observe a correlation between the expression of these receptors with the age and severity of the course of the disease, while this requires further research.

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Ahmad Reza Rezaei, Patrycja Leszczyńska

Title: Expression of Immunoregulatory Receptors on T-cells in CSF and Blood Samples of Patients with TBE

Abstract No. 43

Tick-borne encephalitis (TBE) is a viral neuroinfection caused by the tick-borne encephalitis virus (TBEV), a Flavivirus, transmitted by Ixodes ticks in Europe and Asia. Infection progresses from a flu-like stage to neurological involvement, potentially leading to encephalitis and long-term complications. This study investigates T-cell cycle regulatory surface proteins in blood and cerebrospinal fluid (CSF) of TBE-infected patients, focusing on CD152 (CTLA-4) and
CD279 (PD-1) expression on CD4+ and CD8+
T-cell subsets to assess immune regulation and exhaustion in the CNS.● Aim of the Study:To compare the expression of CD152 and CD279 on CD4+ and CD8+ T-cell subsets in blood and CSF samples of 24 TBE-infected patients, analyzing their median percentages, median fluorescence intensity index (MFIx), and potential immune trends.● Material and Methods:This study included 24 TBE patients (average age: 45.7 years, 15 males, 9 females).
Flow cytometry was used to analyze CD8+CD152+, CD8+CD279+, CD4+CD152+, and CD4+CD279+ subsets in blood and CSF. Median values of % parent, median fluorescence, and MFIx were calculated.● Results:The median percentage of CD8+ cells positive for CD152+ was 49.55% in blood and 43.45% in CSF, while CD4+CD152+ tended to be higher in CSF (58.0%) than in blood (51.9%), suggesting increased regulatory T-cell activity in the CNS. CD279+ expression remained low in both compartments, with CD8+CD279+ % parent at 4.7% (blood) and 2.05% (CSF). Albumin levels (median: 44.75 mg/dL) correlated with immune marker trends, suggesting a link between blood-brain barrier integrity and T-cell activation.●
Conclusion:These descriptive findings may provide insights into T-cell activation in TBE infection but require further research and validation.

Book of Abstracts

Book of Abstracts

Session:

O4 Clinical Sciences I

AULA 4

FRI 25.04.2025 09:30-11:30

Authors: Michał Szóstko

Title: T helper cells subpopulations in blood and cerebrospinal fluid in tick-borne encephalitis and non-TBE aseptic meningitis

Abstract No. 44

Tick-borne encephalitis (TBE) is a type of viral meningoencephalitis of increasing significance in Europe. Despite its incidence, the role of T helper cells' subpopulations in it, important for pathophysiology, especially Th17, remain largely undescribed. Investigating these populations might help to further understand mechanisms responsible for the clinical outcomes of the disease.Aim of the studyThis study aims to assess T helper cells subpopulations in TBE in blood and cerebrospinal fluid (CSF), to compare it with non-TBE aseptic meningitis (AM) and to analyze its relation to symptoms' severity.Materials and methodsThe paired venous blood and CSF samples were obtained from 47 patients with TBE and from 9 patients with AM on admission to hospital. Severity of TBE was calculated using Bogovič scale. Lymphocyte blood and CSF subpopulations were counted cytometrically using fluorochrome-labeled monoclonal antibodies with isotype control. T-bet, GATA-3 and RORgamma transcription factors were used as markers for Th1, Th2, and Th17, respectively. The percentage of marker-positive cells was measured and then mean fluorescence index was calculated. The data was analyzed using non-parametric tests, $p < 0.05$ considered significant.ConclusionsTh1, Th2 and Th17 presence was confirmed with significant percentage of Th17 in the total Th population in patients with TBE (14.20% and 14.00% median in blood and CSF, respectively). Median percentage of Th1 in the total Th population in TBE patients was equal to 4.70% in blood and 2.95% in CSF, while of the Th2 was equal to 1.35% in blood and 1.30% in CSF. There was no statistically significant difference between blood and CSF for these values. No correlation was found between any of the T helper cells and Bogovič scale score. Statistically significant differences were found between patients with TBE and AM: 1) Th17 cell count in the blood was lower in TBE patients (12.164 cells/mm3 median) than in AM patients (53.520 cells/mm3 median). 2) Th2 cell count, mean fluorescence index and percentage of the total Th population was considerably lower in TBE patients. Nosignificant differences were found between the

groups' Th1 levels. While further research is required, the difference between Th2 levels in TBE and AM patients might suggest dissimilar mechanism of immunological response in the diseases, which could potentially be responsible for the typically more severe symptoms characteristic of TBE in comparison to AM (possibly indicating less effective or delayed humoral immunity in TBE).

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Dominik Czarnomski, Maja Janowska

Title: Blood Donation Among Medical University Students: Knowledge, Motivation and barriers

Abstract No. 45

Blood donation is a critical component of healthcare systems, ensuring a stable supply of lifesaving blood products for patients in need. Medical university students, with their understanding of physiology and healthcare, constitute a valuable potential donor pool. However, their participation in blood donation activities is often inconsistent.AIM OF THE STUDY: This study aims to investigate the correlation between educational background and participation in blood donation, and to evaluate the level of blood donation engagement and knowledge among medical university students.MATERIALS AND METHODS: A crosssectional, web-based survey was conducted among 143 participants, encompassing students from various university programs and academic disciplines, over a two-week period, specifically from March 1st to 14th, 2025. The survey instrument was comprised of three distinct sections: (1) demographic data collection, (2) assessment of prior blood donation experience, and (3) evaluation of motivational factors and knowledge pertaining to blood donation.RESULTS: Students of medicine had better knowledge than students of other disciplines. The best knowledge was among people who donated blood at least once in their lifetime. Percentage of medical students (who self-identified as eligible blood donors) who have ever donated blood was smaller than the percentage of students of other fields. The principal motivating factors reported were altruism and a sense of civic duty. Conversely, the primary inhibitory factors identified were perceived health contraindications and time constraints.CONCLUSION: This study shows that medical students, despite superior blood donation knowledge, donate less frequently than their peers from other fields. Blood donation campaigns are perceived as having insufficient reach, and while altruism and duty motivate donors, health concerns and time constraints act as significant deterrents. These findings suggest a need for targeted campaigns that address the specific barriers faced by potential donors, particularly medical students.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Klaudia Gałan, Sebastian Bobryk

Title: Evaluation of the effectiveness of root canal preparation of curved root canals with selected machine systems - an in vitro study

Abstract No. 46

Endodontics is a rapidly developing field of dentistry and its practitioners are constantly seeking new solutions to guarantee effective treatment. An integral part of of modern endodontics are machine systems for root canal preparation. There are many systems on the market There are many systems available on the market, which are characterised by different properties and ways of operation.AimThe aim of this study was to compare the loss of root canal content during primary and endodontic re-treatment in artificial canals with different degrees of curvature using using two file systems: Reciproc Blue (VDW GmbH, Munich, Germany) based on a reciprocating motion allowing Reciproc Blue (VDW GmbH, Munich, Germany), a reciprocating motion system for single file root canal preparation, and ProTaper Gold (Dentsply Sirona Inc., Charlotte, USA) using a rotary motion.Materials and methodsThe study used 20 endodontic blocks each with a standard degree of curvature of the root canals by 10° and 20° (VDW GmbH, Munich, Germany), which were randomly divided into two groups: A - developed using the Reciproc Blue system and B - developed using the ProTaper Gold. In each group, two subgroups of 10 blocks were separated according to the degree of curvature of the canal: A10 and B10 for canals curved by 10% and A20 and B20 - canal curvature 20%. The endodontic treatment was carried out in accordance with the principles by two independent researchers. Each practice block was weighed before preparation and then successively: after preparation, after root canal filling and after removal of the filling. The measurement was performed three times and the average weight was drawn. The results were analysed using the Student's t-test for independent samples.ResultsA comparison of the weight of blocks prepared with Reciproc Blue and ProTaper Gold showed no statistically significant differences at all stages of root canal treatment irrespective of the degree of curvature of the canal (A10 vs. B10 and A20 vs. B20). In contrast, the study showed that there were differences statistically significant

between the weights of 10° and 20° curved blocks both prepared with the Reciproc Blue and ProTaper Gold systems (A10 vs. A20 and B10 vs. B20) In both groups, the weight of the blocks in group 2 was lower after preparation and after removal of material from the root canal, and in group B also after root canal filling.ConclusionsThe study showed that both evaluated systems used in artificial canals remove a similar amount of root canal content. Regardless of the system used, the loss of content of the canal was more significant in canals with a higher degree of curvature.
Such canals should be treated with particular care to avoid weakening of the root walls.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Joanna Najbar, Oskar Makuch

Title: How Do Students Assess the Risks and Benefits of Heated Tobacco Products? A CrossSectional Survey Combined with a Systematic Literature Review

Abstract No. 47

Tobacco use is a leading cause of preventable death worldwide, responsible for over 8 million deaths annually. Heated Tobacco Products are marketed as less harmful alternatives to traditional cigarettes, independent research raises concerns about their health effects. The aim of the study was to evaluate students' perceptions and usage patterns of Heated Tobacco Products.Materials and methods: A cross-sectional survey was conducted, with a questionnaire administered to a random sample of 280 students. The survey assessed various aspects, including the participants' usage patterns of Heated Tobacco Products, their level of nicotine dependence, and their perceptions of the health risks associated with these products. In addition to the primary data collection, a comprehensive literature review was undertaken, focusing on peerreviewed studies published between 2015 and 2025. This review was integral to interpreting the results of the study and situating the findings within the broader body of scientific research on tobacco product usage among young adults.Results: The findings of the study indicate that 29% (n=81) of respondents are current smokers.
Approximately 69% (n=193) of respondents have experimented with Heated Tobacco Products at least once. Among the respondents, 49.3% (n=138) of medical students and 55.3% (n=155) of non-medical students expressed concerns regarding the insufficient testing of Heated Tobacco Products. Interestingly, none of the medical students (0%, n=0) endorsed the belief that the aerosol produced by these systems contains solely nicotine and minimal volatile substances, whereas 19.7% (n=55) of non-medical students held this misconception. Additionally, 50.8% (n=142) of non-medical students regarded Heated Tobacco Products as a potentially safer alternative to traditional cigarettes, in contrast to only 33.8% (n=95) of medical students. 70.77% (n=198) of respondents reported using tobacco products primarily or exclusively in social contexts involving alcohol

consumption,Discussion: The results of the study emphasize the need for targeted campaigns and legal regulations, particularly among young individuals who may view these products as a healthier alternative to traditional cigarettes. However, the relatively short duration of the observation period limits the ability to definitively determine whether the use of these devices correlates with reduced life expectancy but we already know that exposure to those products induces oxidative stress in lung and vascular cells, contributing to chronic conditions such as chronic obstructive pulmonary disease and cardiovascular disorders. Long-term exposure in animal models has demonstrated increased markers of pulmonary emphysema, inflammation, and oxidative DNA damage. While exposure to certain toxins compared to traditional cigarettes is reduced, it is not without risks, and its long-term health effects require further investigation.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Julia Mączewska

Title: Self-Assessment of Voice and Quality of Life in Patients After Total Laryngectomy

Abstract No. 48

Total laryngectomy is a surgical procedure that results in the irreversible loss of the larynx and, consequently, the natural voice. Patients must adapt to new ways of communication, such as esophageal speech, tracheoesophageal voice prosthesis or the use of an electrolarynx. These changes significantly impact their daily lives, social interactions and psychological well-being.The ability to communicate effectively plays a crucial role in maintaining social connections, self-confidence and overall quality of life, making voice rehabilitation an essential aspect of post-laryngectomy care.The Aim of the StudyThe aim of this study is to assess how patients after total laryngectomy perceive their voice quality and how it affects their social functioning and psychological well-being. The study also explores differences in voice self-assessment depending on the communication method used.Material and MethodsThe study was conducted among 50 patients after total laryngectomy who use different alternative communication methods. Standardized voice self-assessment questionnaires and custom-designed questions were employed to analyze both subjective patient experiences and objective communication challenges.ResultsThe findings indicate that voice self-perception varies depending on the communication method used. Patients using tracheoesophageal voice prostheses report higher satisfaction with voice quality and ease of communication compared to those relying on esophageal speech. The greatest difficulties are reported by electrolarynx users, for whom the mechanical and artificial nature of the voice poses a significant barrier to social interactions. Additionally, most patients experience reduced self-esteem and social withdrawal, highlighting the need for comprehensive therapeutic and psychological support.ConclusionThe study underscores the crucial role of voice rehabilitation and psychological support in enhancing the quality of life for patients after total laryngectomy. Early speech therapy intervention, appropriate selection of communication methods and patient education can significantly improve voice selfassessment and overall social wellbeing.

Book of Abstracts

Session:

O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Aleksandra Poznalska, Deepanshu Karmakar

Title: Assessment of Risk Factors for Toxoplasma gondii Infection During Pregnancy

Abstract No. 50

Toxoplasmosis is a parasitic infection that poses a significant risk to pregnant women. It can lead to a range of congenital abnormalities in children as well as intrauterine fetal demise. While treatment is available for pregnant women, prevention remains the most effective strategy.Aim of the study: The aim of the study was to assess the knowledge of surveyed mothers of children under one year of age, hospitalized at the University Children's Clinical Hospital (UDSK) in Białystok, regarding the modes of Toxoplasma gondii transmission.Material and methods: An anonymus survey consisting of 48 questions was distributed between March 2024 and March 2025 among mothers of children under one year of age hospitalized or consulted in the Department of Infectious Diseases and the Department of Nephrology. Only women with a known toxoplasmosis serological status were recruited for the study.Results: The studied group consisted of 177 women, 56 seropositive (31.6%) and 121 seronegative (68.4%). There were no significant differences in age, level of education, origin, financial situation and number of children between the groups. The results revealed significant gaps in knowledge regarding toxoplasmosis transmission routes. Notably: 27% of respondents did not consider consuming raw meat to be risky, 21% were unaware of the danger associated with cleaning a litter box, 36% did not recognize the risk of eating unwashed fruits and vegetables, and 64% did not perceive gardening without gloves as a potential source of infection. However, all these factors are among the most common transmission routes of Toxoplasma gondii. Additionally, seropositive women reported a higher frequency of tasting raw meat while cooking (21.4%) compared to seronegative women (12.2%). The calculated odds ratio (OR) was 2.38 (95% CI: 1.14–4.97), indicating a significantly higher likelihood of exposure among seropositive

individuals (z statistic = 2.311, P = 0.0209). No other significant differences were observed between the two groups. These findings highlight the need for improved education and awareness among women, particularly in the context of reproductive health and the prevention of complications related to Toxoplasma gondii infection. Greater emphasis should be placed on preventive measures to reduce the risk of transmission.

Book of Abstracts

Session:

O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Emilia Niedźwiecka, Michał Radzikowski, Karolina Żylińska

Title: Health at your fingertips - nutritional habits of medical students

Abstract No. 51

Healthy eating habits play a key role in the prevention of diet-related diseases, however, research indicates that even medical students do not always follow the principles of proper nutrition. The purpose of this study was to analyse the dietary mistakes among students at the Medical University of Bialystok, and their awareness of the impact the diet has on health. In addition, an attempt was made to identify measures that could improve knowledge and eating habits among the future health care professionals. The study involved 358 students who completed an anonymous questionnaire about their dietary habits, frequency of eating meals, attention paid to the nutritional value of products, and attitude towards dietary consultations. The results indicate that many students eat irregularly, often snack during the day, and do not pay attention to the quality of the food they eat. Moreover, few of the participants consulted a nutritionist or had sufficient knowledge of the dietrelated diseases. The results of the study highlight the need to intensify educational activities at medical schools and to promote healthy lifestyles. Medical students, as future health care professionals, should not only know the theoretical principles of healthy nutrition, but also apply them in practice. The activities proposed include introducing dietary workshops, regular preventive examinations, educational campaigns, and facilitating access to nutritional consultations at universities.

Book of Abstracts

Session:

O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Joanna Najbar

Title: AI in Long-Term Care: Shaping the Future of Geriatric Care - Benefits, Challenges, and Ethical Perspectives

Abstract No. 52

The aging population presents significant challenges for healthcare systems, particularly in long-term care (LTC) settings. Artificial intelligence (AI) is increasingly viewed as a promising tool to improve geriatric patients care, supporting activities such as health monitoring, mobility assistance, and daily tasks. However, AI's implementation in elderly care raises ethical concerns, especially regarding autonomy and privacy. This paper evaluates AI's impact on elderly care and examines various methods, that can enhance the care of geriatric patients, particularly in situations where caregivers may be unavailable. Materials and Methods: A literature review was conducted from 2010 to 2025 using PubMed and Google Scholar, concentrating on identifying both successful and underdeveloped AI solutions that require further refinement for ethical and practical implementation in LTC environments.Discussion: AI has the potential to significantly reduce caregiver burden in long-term care settings by automating routine tasks, enhancing health monitoring, and offering support. Key applications include automating administrative duties such as scheduling and medication management, allowing caregivers to focus on patient care. Proactive health monitoring through wearable devices and sensors helps detect early signs of health issues, enabling timely intervention. Fall detection systems, equipped with advanced sensors and AI algorithms, boast detection accuracy of over 90%, ensuring that falls are promptly identified and caregivers or medical personnel are immediately alerted. This rapid response reduces the risk of complications and improves patient safety. In addition to fall detection systems, voice-activated assistance has also proven to be an effective solution, according to research, and is relatively easy to implement, providing elderly individuals with hands-free support for daily tasks and communication. These advancements collectively contribute to higher-quality care, increased caregiver effectiveness, and better geriatric patient outcomes.Discussion: Ongoing research and

development are necessary to ensure AI technologies in elderly care align with ethical principles, safeguarding the dignity and rights of senior individuals. Considering the demographic trend of an aging population, the development and integration of AI technologies in geriatric care are essential. AI offers promising solutions to improve care quality, alleviate caregiver burden, and ensure more efficient and sustainable care for the elderly, especially in the face of multiple health conditions, a shortage of caregivers, and rising costs of elderly care, which pose significant challenges for families and social care systems.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Joanna Najbar

Title: What are the key trends in pain management for geriatric patients, and how are they shaped by age-related factors and comorbid conditions?

Abstract No. 53

The growing prevalence of chronic pain among the geriatric population necessitates a comprehensive, interdisciplinary approach to managing pain pharmacotherapy in this group. With the rapid increase in the aging population, conditions such as arthritis, neuropathy, and cancer-related pain are becoming more common, presenting significant challenges for healthcare providers. Geriatric patients often have complex comorbidities, requiring individualized pain management strategies to address both their pain and underlying health issues effectively. Objective: This study aims to quantitatively and qualitatively evaluate the analgesic treatments and potential coanalgesic medications utilized by patients presenting with pain in geriatric care settings.Materials and methods: The study was based on the medical records of 937 patients treated at the Dobre Miasto medical center. It involved an analysis of the pharmacological pain management strategies employed, with a focus on variables such as gender, age, and comorbid conditions, including depression and dementia.Results: Of the 311 patients who reported pain as their primary reason for consultation, 76.2% (n=237) were women. Among these, 147 patients (47.3%) were receiving analgesics, with opioids being the most commonly prescribed in 58.9% of cases (n=87), particularly tramadol. Only 4.7% (n=7) of the patients were prescribed strong opioids. Regarding analgesic regimens, 55 patients (37.4%) were using a single medication, while 52 patients (35.4%) were on two or more analgesics. Additionally, 15.4% (n=22) of patients were prescribed potentially co-analgesic medications, predominantly selective serotonin reuptake inhibitors (SSRIs). Among the 153 patients diagnosed with dementia, only 11.3% (n=17) reported experiencing pain. Younger patients (under 65) reported pain more frequently, although no significant correlation was found between age and medication usage or the prevalence of depression in those with pain.Conclusions: The significant prevalence of pain among geriatric patients underscores

the urgent need for an interdisciplinary approach to pain management. The higher frequency of pain reporting among younger patients suggests that age-related factors, including physiological changes, cognitive decline, and varying pain thresholds, may influence both the experience of pain and the effectiveness of treatment. These findings highlight the necessity for tailored, ageappropriate pain management strategies in geriatric care.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Magdalena Skorupska, Filip Bossowski, Maria Obrycka, Daria Anna Majchrzak, Dominika Szczepańska

Title: Early Detection of Preclinical Type 1 Diabetes in Asymptomatic Children: A Regional Screening Initiative in Northeastern Poland

Abstract No. 54

Type 1 diabetes (T1D) is a chronic autoimmune condition that typically manifests in childhood, making early identification critical for effective management and prevention of complications. Recognizing the importance of early detection, a large-scale, populationbased screening program was implemented in northeastern Poland as part of the broader nationwide Pre-diabetes Study (2019–2023). This extensive initiative involved collaboration across 14 diabetes centers, highlighting its comprehensive national scope.Initially, the program screened an impressive cohort of 1,288 asymptomatic children, ranging in age from 7 months to 18 years, all of whom had a family history of T1D. This extensive screening identified 112 children (8.69%) with positive results on initial autoantibody testing (3-Screen ELISA). Further evaluation revealed that 76 of these children (5.9%) were positive for multiple (≥2) diabetesassociated autoantibodies, placing them at high risk for progression to clinical T1D.Building on these significant findings, the initiative expanded its reach by launching an ambitious pilot screening effort targeting an additional 3,000 unselected children aged 1–9 years in the Podlaskie region. The scale of this population-based screening emphasizes its potential to substantially impact early diagnosis and intervention strategies for T1D in Poland.Methods:Venous blood samples were collected and stored at –20°C. Screening was performed using the 3-Screen ELISA (RSR Ltd, Cardiff, UK), which detects T1Drelated antibodies (GAD, IA2, ZnT8). Positive samples were further analyzed for specific autoantibodies, including IAA, using both ELISA and RIA techniques. In the regional pilot phase, children from eight counties were recruited regardless of family history.Results:Among the 3,000 children screened in the pilot study, 85 (3.46%) had positive results in the 3-Screen ELISA. Of these, 0.44% had two, and 0.65% had multiple autoantibodies, placing them in the highest-risk group. These children are now

enrolled in a follow-up program including regular clinical evaluations, education on diabetes warning signs, nutritional guidance focusing on low glycemic index diets, and recommendations for physical activity. This effort is the first regional screening of its kind in Poland and adds valuable insight into early T1D detection in the general pediatric population.Conclusion:The 3-Screen ELISA test facilitates the early detection of children susceptible to type 1 diabetes, even before the emergence of clinical symptoms. Prompt education and subsequent monitoring have the potential to diminish the incidence of acute disease onset, while also bolstering strategies aimed at delaying or averting disease advancement. This novel approach signifies a substantial advancement in the realm of pediatric diabetes prevention within Central Europe.

Book of Abstracts

Session:
O5 Clinical Sciences II

AULA 1

FRI 25.04.2025 12:30-14:30

Authors: Julia Lendzioszek

Title: Evaluating the effects of ferulic acid treatment on the level of hydration and transepidermal water loss of the skin

Abstract No. 55

Ferulic acid is a phenolic chemical compound derived from cinnamic acid. It occurs naturally in plants (cereals, vegetables, fruits, seeds), especially in their cell walls. Due to its strong antioxidant properties, it is widely used in cosmetology, medicine and the food industry. It enhances the effects of vitamins C and E, has photoprotective and antiaging effects. Its ability to inhibit tyrosinase makes it useful in skin lightening products. In the food industry, it is used as a natural preservative and a precursor to vanillin. In medicine, it has antiinflammatory, anti-diabetic, neuroprotective and anti-cancer effects. Thanks to its ability to neutralize free radicals and protect cell structures, ferulic acid can be used in the treatment of neurodegenerative diseases, the circulatory system and in the treatment of wounds. Aim of the study: The aim of the study was to examine the effect of ferulic acid on hydration and transepidermal water loss in the skin. Material and methods: The study involved 18 participants (17 women and 1 man). The average age of the respondents was 55.89 years. Treatments with 20% ferulic acid peel were performed at 14 days intervals. Before and after the treatment, the participants were examined for selected skin parameters with the help of specialized measuring device such as Courage & Khazaka Multi Probe Adapter System MPA 580. Photographic documentation Results: The average hydration level increased from 47.58 to 55.07, representing a 15.7% improvement. Cheek measurements showed a more significant reduction in mean TEWL values after treatment representing approximately a 19% decrease. The results achieved by apparatus, are reflected by photo documentation. Conclusions: The results demonstrated that ferulic acid effectively improves skin hydration, with particularly notable benefits for individuals with initially dry skin. These results suggest that ferulic acid treatment has a positive effect on skin barrier function, as evidenced by the reduced transepidermal water loss.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Klaudia Kłymko, Julia Kobylińska, Joanna Kruszyńska, Izabela Kruszewska, Daria Woroniecka

Title: Exploration of sex-related differences in ablation outcomes - Early Results from the BIAAR Registry

Abstract No. 57

Sex-related differences play a significant role in various cardiovascular diseases. Atrial fibrillation and atrial flutter are common supraventricular arrhythmias that seriously affect patients' quality of life and are associated with an increased risk of thromboembolic complications, such as stroke and myocardial infarction.
Percutaneous catheter ablation has become a crucial treatment option in the modern management of these arrhythmias, providing substantial benefits in symptom relief and leading to improved clinical outcomes. However, patient sex may influence the effectiveness and long-term benefits of the procedure, highlighting the need for further research into these differences.AIM OF THE STUDY: The aim of this study was to evaluate the impact of sex as a contributing factor for periprocedural complications in patients undergoing percutaneous catheter ablation.MATERIALS AND METHODS: In this retrospective study, we included 334 consecutive patients with atrial fibrillation, atrial flutter, or both who underwent radiofrequency ablation or cryoablation at the Medical University of Białystok Clinical Hospital between 2019 and 2025. Statistical analysis was performed using Statistica 13.3, with comparisons made using chi-squared and Tstudent tests.RESULTS: In the study group, women were older than men, with a mean age of 66.78 years compared to 58.78 years, respectively ($p < 0.0001$). Women also exhibited lower diastolic blood pressure (78.99 mmHg vs. 83.46 mmHg $p = 0.0017$) and lower estimated glomerular filtration rates (79.53 mL/min/1.73m² vs. 89.72 mL/min/1.73m² $p < 0.0001$) than men. Additionally, men had lower high-density lipoprotein levels than women (47.67 mg/dL vs. 58.38 mg/dL $p < 0.0001$). The left ventricular ejection fraction was similar between the two groups. However, women had smaller left atrial diameters (40.17 mm vs.

42.85 mm p = 0.0002), smaller left atrial areas (23.06 cm^2 vs. 25.89 cm^2 p = 0.0088), and smaller right atrial areas (18.50 cm^2 vs. 22.04 cm^2 p <0.0001). There was a trend toward a higher incidence of periprocedural arrhythmias among women however, this did not achieve statistical significance for periprocedural complications.CONCLUSIONS: Results from this single-center study indicate no correlation between sex and the incidence of periprocedural complications.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Julia Kobylińska, Klaudia Kłymko, Joanna Kruszyńska, Izabela Kruszewska, Daria Woroniecka

Title: Does obesity influence periprocedural risk among patients' outgoing catheter ablation for atrial fibrillation or atrial flutter? - early results from the BIA-AR registry

Abstract No. 58

Obesity, also called the 21st-century epidemic, is a growing global health problem associated with many complications, including cardiovascular diseases. It is a proven risk factor for atrial arrhythmias, especially atrial fibrillation (AF), which is becoming more prevalent worldwide. AF is the most common supraventricular arrhythmia and increases the risk of thromboembolic events, such as stroke, and negatively impacts quality of life. Preserving sinus rhythm is one of the main goals of AF treatment, and it can be achieved by catheter ablation.AIM OF THE STUDY: The study aimed to evaluate the impact of obesity as an independent risk factor for peri-procedural complications in patients undergoing ablation compared to individuals with a BMI lower than 30.MATERIALS AND METHODS: We conducted a retrospective study that included 334 patients hospitalized for atrial fibrillation and flutter ablation from 2019 to 2025 at the Department of Invasive Cardiology of the University Clinical Hospital in Białystok. The Statictica 13.3 was used for calculation. The comparison was performed using chisquared and T-student tests. RESULTS: 334 patients (71.26% were men, mean age 61.23y) were divided into two groups depending on BMI (BMI> 30 n= 130 BMI <30 n=204). Patients with obesity had a higher prevalence of heart failure (51.54% vs. 36.76% p<0.0001) and diabetes mellitus (30% vs. 17.65% p=0.008). There was a trend towards a higher rate of hypertension in patients BMI>30 (78.46% vs 72.55% p=0.07). There was no difference in dyslipidaemia (77.69% vs 74.02% p=0.45), ischaemic heart disease (33.85% vs 37.25% p=0.5) and past stroke or TIA. Patients with obesity presented significantly larger left atrium diameter (43.19 mm vs 41.28 mm p=0.004) and left atrial area (26.65 cm2 vs 24.02 cm2 p=0.006). Triglycerides were higher among subjects with BMI>30, and HDL was lower.The greater risk of peri-procedural events during ablation, such as peri-procedural arrhythmia (OR 2.76, 95% CI 1.63 to 4.68 p=0.0002) and vascular complications (OR 15.10, 95% CI 1.89 to 120.65

p=0.010), was higher in patients with BMI over 30. There was a trend towards the increased necessity of electrocardioversion among respondents with obesity (OR 2.06, 95% CI 0.96 to 4.44 p=0.06). CONCLUSIONS: The results suggest that obesity may be an independent risk factor for peri-procedural arrhythmias and vascular complications following catheter ablation.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Julia Więcko, Karolina Połubińska, Karolina Juchimowicz, Marta Skarzyńska, Weronika Piotrowska

Title: Hypertension awareness in the population of Białystok and surrounding areas by 2023/2024 - WORLD HYPERTENSION DAY 2023 AND 2024

Abstract No. 59

The study emerged as an integral component of the pro-health campaign during World Hypertension Day 2023 and 2024, conducted in Bialystok.AIM OF THE STUDYThe aim of the study was to evaluate the incidental blood pressure (BP), heart rate (HR), glycemia and electrocardiography (ECG) among residents of Bialystok, Poland and the surrounding region.MATERIALS AND METHODSThe study included 342 random participants, of whom 59.94% were female. Data was gathered through physical measurements and participantcompleted surveys composed of questions regarding age, sex, education level, residence, smoking status, alcohol consumption, physical activity and the presence of any cardiovascular disease or diabetes mellitus. The measured parameters included blood pressure (BP), heart rate (HR), blood glucose levels, and electrocardiogram (ECG).Participants were categorized based on age (≥65 or < 65), BP (≥130/80 or <130/80 mmHg), sex, and BMI (≥25 or < 25). Data were statistically analyzed.RESULTSThe average systolic blood pressure (SBP) was 136 mmHg, diastolic blood pressure (DBP) 77 mmHg, HR 78/min, glycemia 101.70 mg/dl, and BMI 26.69. The majority of participants (87.58%) lived in urban areas, 50% had higher education, and 38.72% engaged in physical activity 2–3 times/week, while 28.57% were inactive. Those with BP ≥130/80 mmHg had a mean BMI of 27. Adults ≥65 had higher SBP (138.2 vs. 133.1 mmHg, p=0.002), while DBP was lower (75.9 vs. 79.7 mmHg, p=0.0032) compared to younger individuals. Participants with BMI >25 had a greater rate of hypertension (57.37% vs. 29.37%) and diabetes mellitus (15.20% vs. 8.73%) compared to those with BMI < 25. No significant difference in the BMI>25 group. Among hypertensive participants (56% women, 55.26% with secondary education), SBP, DBP, BMI, and inactivity were higher. Additionally, 22.9% had diabetes mellitus compared to 5% among those without hypertension.CONCLUSIONSThe findings indicate age-related variations in blood pressure, with older adults exhibiting higher SBP and lower DBP.

Hypertension was associated with elevated BP, increased BMI and physical inactivity, with a higher prevalence among men. Managing obesity, reducing inactivity, and addressing smoking are essential for controlling blood pressure, especially in high-risk older adults.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Katarzyna Skorupska

Title: Calcified lesions in percutaneous coronary intervention - outcomes of intravascular lithotripsy from a high-volume center

Abstract No. 60

Coronary artery calcifications remain a significant challenge in the percutaneous coronary interventions, adversely affecting procedural success and patient outcomes. Extensive calcification increases the prevalence of stent malapposition or underexpansion, therefore elevating the risk of late adverse events. Early investigations have demonstrated that intravascular lithotripsy (IVL) enhances procedural success and clinical results. Aim of the study: The aim of this analysis is to evaluate the safety and efficacy of IVL in a diverse patient groups, including those with acute myocardial infarction (MI).Materials and methods: A total of 201 consecutive patients who underwent PCI using Shockwave C2 and C2+ IVL from April 2020 were included in the analysis. The cohort comprised 125 patients with a non-MI presentation (Group 1) and 76 patients with MI (Group 2).Results: The study population included 26.4% women.
Group 2 presented with significantly lower left ventricular ejection fraction (LVEF) (50.9% ± 10.5% vs. 46.0% ± 13.1% p = 0.022) and a greater frequency of heart failure (28.0% vs. 43.4% p = 0.025). Syntax Score was higher in Group 2 (16.5 ± 10.2 vs. 20.0 ± 11.3 p = 0.059), and left main coronary artery involvement was more frequent (20.8% vs. 35.5% p = 0.022). Bifurcation PCI was performed in 34.8% of cases, while chronic total occlusion PCI undertaken in 10% of cases. Post rotational atherectomy debulking with IVL was performed in 10 cases. IVL demonstrated a high success rate (97.5%) and an overall procedure success rate of 99.5%. Both groups demonstrated increases in mean lumen area: 4.5 ± 2.2 mm^2 in Group 1 and 5.9 ± 3.7 mm^2 in Group 2, corresponding to percent changes of 239% and 237%, respectively. Periprocedural complication rates were similarly low between the groups. In long-term follow-up, no significant differences were noted in all-cause mortality between Group 1 and Group 2 (8.1% vs. 9.0% p = 0.997), cardiac death (p = 0.340), or repeat myocardial infarction (8.3% vs. 12.0% p = 0.986). Major adverse cardiovascular events (MACE), including cardiac death, myocardial infarction, and stroke,

were also comparable between groups (9.8% vs. 16.8% p = 0.501). Predictors of long-term all-cause mortality included prior CKD, post rotaatherectomy debulking, prior CABG, and lesion length >20 mm.Conclusions: IVL is an effective treatment for the modification of calcified atherosclerotic lesions, demonstrating a high success rate for IVL use and overall procedural success. Minimal periprocedural complication rates have been reported, and the long-term clinical outcomes in this high-risk patient population are encouraging.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Karolina Rogaska, Adriana Kubera

Title: Association between body mass index and atopic dermatitis in children

Abstract No. 61

Atopic dermatitis (AD) is a common chronic inflammatory skin disease in children, characterised by pruritus and recurrent eczematous lesions. While its aetiology is multifactorial, increasing evidence suggests that nutritional status may influence both the risk and severity of AD. Body mass index (BMI), as a basic anthropometric parameter, may serve as a proxy for metabolic involvement in the pathogenesis of AD.Aim:To evaluate the association between BMI and atopic dermatitis in children across different age groups.Materials and methods:A retrospective analysis was conducted on 105 children (40 girls, 65 boys) aged 0.3–17 years diagnosed with AD and treated in an allergology unit between 2023 and 2024. Patients were divided into four age groups: 0–2, 3–6, 7–12, and 13–18 years. BMI was calculated from measured height and weight. BMI categories were determined using International Obesity Task Force (IOTF) criteria, which provide age-and sexspecific thresholds corresponding to adult cut-offs for underweight (<18.5 kg/m²), overweight (≥25 kg/m²), and obesity (≥30 kg/m²). Additionally, BMI distribution was evaluated using the Shapiro– Wilk test.Results:In the
0–2 years group, 65.9% of children had normal BMI, while 22.0% were underweight, 7.3% overweight, and 4.9% obese. BMI distribution significantly deviated from normal ($W = 0.835$, $p < 0.001$). In the 3–6 years group, 78.1% had normal BMI, 13.6% were underweight, 6.8% overweight, and 1.5% obese distribution was not significantly different from normal ($W = 0.951$, $p = 0.153$). In the 7–12 years group, 58.3% had normal BMI, with 18.8% underweight, 14.6% overweight, and 8.3% obese. Although not statistically significant, distribution showed a slightly bimodal pattern ($W = 0.904$, $p = 0.095$). In the 13–18 years group, 61.8% had normal BMI, 14.7% underweight, 14.7% overweight, and 8.8% obese.

Distribution was normal ($W = 0.945$, $p = 0.420$).Conclusions:1. A clear age-related pattern emerged in BMI distribution . Excess weight was more common in older children,

suggesting a possible link between metabolic factors and disease severity. The youngest patients showed the highest prevalence of underweight and a significant deviation from normal BMI distribution, suggesting early-life nutritional imbalance.2. These findings support the hypothesis that nutritional status may influence the clinical expression of AD, as both undernutrition and excess weight appear to be overrepresented among affected pediatric patients.3. Routine monitoring of BMI may be a valuable component of comprehensive AD management. Addressing both undernutrition and excess weight in children with AD may contribute to improved long-term disease outcomes.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Nicolas Agnello, Agata Wińska, Zuzanna Panas, Blanka Bugajewska

Title: Effectiveness Of Deferasirox As Oral Iron Chelation Therapy After Cessation Of Childhood Malignancies

Abstract No. 62

Iron accumulation in the body results from regular blood transfusions startingat a young age. Iron chelation therapy can help prevent growth delays and organ damage.Deferasirox is used to treat pediatric oncology patients with iron overload caused by chronictransfusions.
This study aimed to assess the safety and effectiveness of deferasirox (DFX) inmanaging iron overload in pediatric patients undergoing cancer treatment.MATERIALS AND METHODS: We analyzed changes serum concentration of ferritin (ng/ml)and biochemical parameters in 29 children in mean age 8,37 +- 4,5 yrs treated for childhoodneoplastic diseases (leukemias - 25, lymphomas-1, solid tumors 3) during oral chelationtherapy with deferasirox started after cessation of antineoplastic treatment.RESULTS: We observed a consistent significant decrease in ferritin concentration duringchelation treatment. Ferritin showed a strong positive correlation with ALT and AST at thebeginning of therapy (month 0 and 1). ALT ($r = 0.56$, $p < 0.01$) and AST ($r = 0.72$, $p < 0.0001$) in month 0 → strong and very strong correlation. In month 1, the correlations werestill clear (ALT $r = 0.50$, $p < 0.05$ AST $r = 0.62$, $p < 0.01$), but weakened in the followingmonths. This suggests that ferritin and liver enzymes may be related mainly in the earlyphase of therapy. Bilirubin showed a moderate to strong negative correlation with ferritin(especially in months 1 and 3). The strongest negative correlation occurred in month 3 ($r = -0.66$, $p < 0.05$, strong correlation). There was also a moderate correlation in the 1st month ($r = -0.60$, $p < 0.05$). This may suggest a relationship between iron metabolism and liverfunction during therapy.Urea (UREA) showed a strong positive correlation with ferritin in the 6th month. $r = 0.74$.GGTP and creatinine do not show significant correlations. GGTP has weak or missingcorrelations throughout the therapy. Creatinine shows a weak positive correlation in the 3rdmonth ($r = 0.24$), but it is not statistically significant.CONCLUSIONS: Deferasirox which is used for treatment of

pediatric patients witch chroniciron overload due to blood transfusions is safe and effective chelator.

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Filip Bossowski, Magdalena Skorupska

Title: Evaluation of miR-21-5p and miR-26b-5p as Emerging Biomarkers in Pediatric Cardiology

Abstract No. 63

MicroRNAs (miRNAs) are diminutive non-coding RNA molecules that play a pivotal role in modulating gene expression post-transcriptionally. This modulation occurs through inhibiting or promoting messenger RNA (mRNA) degradation. These miRNAs influence fundamental biological processes, including cell proliferation, programmed cell death (apoptosis), and inflammation. Due to these regulatory properties, miRNAs represent promising biomarkers for diagnosis and prognosis in various clinical conditions, including cardiovascular diseases (CVD).This study sought to measure miR-21-5p and miR-26b-5p expression in pediatric patients with myocarditis and cardiac arrhythmias. The levels were compared to those of healthy controls with no cardiac impairment.Methods:A total of 40 pediatric patients aged 10–18 years were enrolled, including 33 diagnosed with arrhythmias and 7 with myocarditis. A control group comprising 20 healthy individuals, each screened to exclude conditions known to influence miRNA expression, was included in the analysis. After obtaining informed consent, venous blood samples were collected and promptly cryopreserved. Subsequently, miRNAs were extracted from these samples and reversetranscribed to generate complementary DNA (cDNA). Quantitative assessment of miR-21-5p and miR26b-5p levels was carried out using real-time PCR (qRT-PCR), applying specific primers designed for each miRNA molecule.Results:The analysis demonstrated significantly lower expression levels of miR-21-5p in both patient groups (myocarditis and arrhythmia) compared to healthy controls. Furthermore, in pediatric myocarditis cases, levels of miR26b-5p were significantly lower, suggesting that miRNA regulation is specific to this disease.

Notably, a positive correlation was found between the expression of miR-21-5p and miR-26b-5p in the pediatric cohort and within the arrhythmia subgroup. No statistically significant correlations were identified between the investigated miRNAs and classical biochemical markers of cardiac injury, including creatine kinase (CK), CK-MB isoenzyme, and cardiac troponins.Conclusions:Based on initial observations, miR-21-5p and miR-26b-5p could be innovative and diagnostically significant biomarkers. These markers may differentiate pediatric myocarditis patients exhibiting arrhythmias from healthy individuals. Given the limited available data in pediatric populations, further studies with larger cohorts are essential. Further investigation would affirm our observations, clarify the related biological processes, and evaluate how these miRNAs could be used clinically in diagnosing and treating cardiovascular diseases in pediatric patients.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Furkan Ates

Title: Does Survey Mode Matter? Uncovering How Online vs. Paper-Based Surveys Shape Parental Attitudes Toward Childhood Vaccination

Abstract No. 64

Survey studies are a key instrument in assessing public attitudes on health-related issues. However, the method of data collection - whether online or paper-based - can significantly influence the responses, especially on polarized topics like childhood vaccines. Recent trends suggest that online platforms may amplify vaccine skepticism, potentially skewing public health data used for policy-making.AimThis study aimed to compare parental attitudes toward childhood vaccination in Poland across two survey formats - online and paper-based - and to assess whether the mode of administration influences responses or introduces systematic bias.Methods & MaterialsA total of 873 parents from the Podlaskie region were surveyed using an identical 17-item questionnaire. The paper-based survey (n=487) was conducted in the Department of Pediatric Infectious Diseases in the Medical University of Białystok, while the online version (n=386) was distributed in various Facebook groups, both between 2020 and 2022. Data were analyzed in R using among others multivariate logistic regression models.ResultsOnline respondents were significantly more vaccine-hesitant: they were five times less likely to support childhood vaccination (OR=0.20, 95% CI: 0.13–0.30), over four times more likely to favor natural immunity over vaccines (OR=4.67, CI: 3.19– 6.95), and nearly three times as likely to believe in the vaccine-autism myth (OR=2.76, CI: 1.95–3.95). They also relied less on trusted sources and had more difficulty communicating with doctors. These patterns persisted even after adjusting for demographic and behavioral variables, indicating that survey mode independently influences vaccine-related attitudes.ConclusionsSurvey mode strongly influences reported vaccine attitudes. Online formats attract more hesitant respondents, likely due to misinformation exposure. These findings underscore the need to tailor public health messaging - especially online - to address vaccine hesitancy more effectively.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Sandra Murawska, Aleksandra Opęchowska

Title: Association of intermediate monocytes with the clinical course of pediatric type 1 diabetes

Abstract No. 65

Type 1 diabetes is a chronic autoimmune disease that affects over 8 million people worldwide. The progressive loss of pancreatic beta cells leads to insulin deficiency and, consequently, to hyperglycemia. Clinically, patients present with symptoms such as polyuria, polydipsia, and weight loss. Although the etiology of type 1 diabetes mellitus (T1DM) is not fully understood, its pathogenesis is believed to involve a complex network of immunological interactions. According to recent research, monocytes—key components of the innate immune response—appear to play a role in the development and progression of the disease. Therefore, our study aimed to investigate the frequency of the intermediate monocyte subset in newly diagnosed patients with type 1 diabetes and its association with clinical parameters.Materials and methodsPeripheral blood was collected from 51 newly diagnosed pediatric patients with type 1 diabetes (T1D) and 39 age- and sex-matched healthy children. The frequency of intermediate monocytes was assessed by flow cytometry using CD14 and CD16 markers, defined as CD14++CD16+. In addition, clinical parameters—including glycated hemoglobin (HbA1c), C-peptide levels, and insulin usage—were recorded over a two-year follow-up period.ResultsFirstly, we noted significantly higher levels of intermediate monocytes in T1D diabetic patients compared to the healthy control group. Patients with higher GADA autoantibody values have enhanced levels of intermediate monocyte. Moreover, we did not find differences in c-peptide levels depending on the lower/higher CD14++CD16+ monocyte values. However, initially increased values of intermediate monocytes were connected with higher values of c-peptide after two years of therapy. ConclusionWe demonstrated an association between the percentage of intermediate monocyte subpopulation and the course of type 1 diabetes. The intermediate monocyte subset appears to correlate with changes in c-peptide concentration during therapy. Further studies should provide insights into the potential of these data as novel predictive biomarkers for type 1 diabetes therapy.

Book of Abstracts

Session:
O6 Clinical Sciences III

AULA 2

FRI 25.04.2025 12:30-14:30

Authors: Zuzanna Puciłowska, Oliwia Skwiercz

Title: Clinical picture of new onset type 1 diabetes in childhood – 12-years single center observation

Abstract No. 66

Over recent years, a significant increasing trend in the incidence of type 1 diabetes (T1D) has been observed in the pediatric population. The clinical picture at the time of diagnosis varies from accidentally detected carbohydrate intolerance, through overt symptoms of the disease, to a severe ketoacidosis (DKA).Objective: The aim of this study was to analyze the clinical picture of patients aged 0-18 years at the time of diagnosis of T1D and to determine the possible influencing factors.Material and methods: The medical records of patients (n=777, 369 boys and 408 girls) who were admitted to the Clinic with a new diagnosis of T1D in the years 2010-2022 were retrospectively analyzed. Statistical analyzes were performed using the Statistica 13.3.Results: In the years 2010-2022, an increase in the number of new cases of T1D was observed - from 48 patients in 2010 to 88 and 78 in 20212022 respectively. Considering the incidence of DKA at the time of disease diagnosis, a statistically significant increasing trend was observed (p=0.016), the most marked in relation to the occurrence of severe acidosis (p=0.034). DKA was observed significantly more often in younger children, with lower body weight and BMI, with a higher HbA1c percentage and lower C-peptide secretion (all p=0.000). The pH value at diagnosis correlated positively with age, body weight, BMI, BMI-SDS and c-peptide concentration, and negatively with HbA1c and the symptoms duration. The observation time of prodromal symptoms correlated positively with patients' age and HbA1c. Most often, the diagnosis of T1D was accompanied by HbA1c 8-12%. In children aged 10-18 years, HbA1c values >12% and >16% were observed more frequently. Interestingly, the highest HbA1c values in the DKA group were most often observed ina state of mild DKA. The presence of an additional autoimmune disease at the time of T1D diagnosis was associated with a significantly Book of Abstracts lower pH (p=0.0086) and more frequent occurrence of DKA (p=0.035), but also with older age (p=0.026). Children from families with a history of diabetes in a first-degree relative were characterized by a significantly lower rate of DKA (p=0.0000), shorter symptoms duration (p=0.0055), lower HbA1c (p=0.0001), and higher c-peptide (p=0.0001).Conclusions: Not only is there an increase in the incidence of T1D in children, but also in the occurrence

of DKA at the time of diagnosis. The youngest children are at the greatest risk of DKA, and its occurrence is associated with low residual function of pancreatic beta cells. The presence of an additional autoimmune disease increases the risk of developing DKA. Patients with a positive family history of diabetes are diagnosed earlier, in a better clinical condition and with a lower incidence of DKA, most likely due to greater awareness of the patienta and their parents about the symptoms of the disease.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Paulina Lewandowska

Title: Long QT Syndrome and Epilepsy: Genetic Insights and Management Strategies

Abstract No. 67

Long QT syndrome (LQTS) is a cardiac channelopathy characterized by delayed ventricular repolarization, increasing the risk of life-threatening arrhythmias such as torsades de pointes (TdP). It may be congenital (mutations in KCNQ1, KCNH2, SCN5A) or acquired (due to drugs, electrolyte imbalances, or structural heart disease). Symptoms include syncope, seizures, or sudden cardiac arrest, often triggered by stress or exercise. Diagnosis relies on ECG (QTc prolongation), clinical history, genetic testing, and the assessment of Schwartz score. Management includes beta-blockers, lifestyle modifications, and ICDs for high-risk cases. Many commonly used medications can prolong the QT interval, making ECG monitoring essential when prescribing these drugs.Case Presentation:A 21-year-old female with epilepsy on levetiracetam for 6 weeks presented with recurrent ventricular tachycardia and syncope (7-10 episodes/day). She noted that these episodes differed from her epileptic seizures, as they were preceded by palpitations and dyspnea, whereas her seizures never started with such symptoms. ECG showed QTc of 600 ms, and ECHO revealed no structural abnormalities. She was hemodynamically stable but experienced an in-hospital TdP episode requiring IV magnesium and temporary pacing. Levetiracetam was discontinued due to QTprolonging effects. Further evaluation revealed an LQTSassociated KCNH2 mutation, and recurrent TdP episodes warranted bilateral thoracoscopic sympathectomy (T1-T4). Postoperatively, she experienced mild bradycardia but no recurrent ventricular arrhythmias. Temporary pacing was reduced, and nadolol was initiated. Transient pneumomediastinum and a Gram-positive bloodstream infection were managed conservatively. An ICD was later implanted due to her high-risk status. Her epilepsy treatment was re-evaluated, and lamotrigine was introduced as an alternative therapy with a more favorable cardiac safety profile.Conclusion:This case highlights the importance of considering LQTS in young patients with unexplained syncope. LQT2 is associated with arrhythmic events triggered by stress or auditory stimuli. Early diagnosis via ECG and genetic testing enables timely intervention. Beta-blockers are first-line therapy, with ICD placement for high-risk patients. Family screening is crucial for early detection and prevention. Additionally, careful selection of

medications, particularly in patients with known QT prolongation, is necessary to prevent arrhythmic complications.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Katarzyna Skorupska

Title: Unexpected complication of chronic total occlusion PCI: a case of hematoma with contrast extravasation

Abstract No. 68

Percutaneous coronary interventions (PCI) of chronic total occlusions (CTO) are highrisk procedures with an increased complication rate. We present a rare case of hematoma with extravasated contrast after PCI CTO attempt.Case report: A 62-year-old man with angina symptoms CCS III was admitted to the hospital for PCI CTO of right coronary artery (RCA). He had a history of successful PCI LCX 7 months ago, type 2 diabetes and hypertension. The electrocardiography stress test was clinically positive. Laboratory tests revealed Troponin I hs within the normal range. Echocardiography (ECHO) showed ejection fraction of 55% and left ventricle diameter of 58mm. Initially, antegrade technique was utilized with coronary guidewire advancing to the medial RCA area, without certainty of true lumen localization. The dissection of proximal RCA occurred. The decision to postpone procedure with possible retrograde technique was made. Post-procedure ECHO revealed a contrasting structure (2,5cmx3,6cm), located at the base of the right ventricle (RV) free wall and 11mm of fluid in the pericardium. Post-procedure laboratory tests revealed minor Troponin I hs elevation (29,6ng/L). In the following days, the amount of fluid did not increase. This image suggested a hematoma with contrast extravasation, prompting further imaging. This abnormality was not visible on cardiac magnetic resonance (CMR), probably due to the use of iodine contrast. However, computed tomography angiography revealed no evidence of vessel perforation and blurred fat tissue images of the RV area. The diagnosis of hematoma with extravasated contrast to the free RV wall without active bleeding was confirmed. The patient was discharged after 13 days of observation with recommendation of dual antiplatelet therapy with ticagrelor and ambulatory control with ECHO.Conclusions: This case highlights the importance of post-procedural monitoring and imaging to guide clinical

decisions, ensuring patient safety and optimal outcomes after complex highrisk procedures, especially in PCI CTO cases.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Michał Dąbrowski

Title: Surgical repair is not the end: long-term challenges in an ALCAPA patient

Abstract No. 70

Anomalous Left Coronary Artery from the Pulmonary Artery (ALCAPA), or Bland–White–Garland syndrome, is a rare congenital defect occurring in 1 in 300,000 live births. Without surgical correction, severe myocardial ischemia leads to high infant mortality. Surviving adults typically develop collateral circulation between the right coronary artery (RCA) and left coronary artery (LCA), preserving myocardial perfusion but predisposing them to long-term complications, including left ventricular dilation, mitral valve dysfunction, and heart failure. ALCAPA often presents in adults with exertional angina, dyspnea, and heart failure, with a high risk of sudden cardiac death before age 35. Surgical correction is essential to restore a two-coronary artery system, commonly via LCA re-implantation or grafting. Despite revascularization, ventricular dysfunction and mitral disease often persist, requiring long-term monitoring.Case ReportA 69-yearold male with a history of BlandWhite-Garland syndrome was admitted for coronary angiography due to chronic coronary syndrome symptoms. At age 58, he underwent LCA ligation at its pulmonary artery origin and left internal mammary artery (LIMA) grafting to the distal LCA. Concurrently, a mechanical mitral valve was implanted for mitral regurgitation due to left ventricular dysfunction. Over time, he developed heart failure with an ejection fraction of 27%. A cardiac resynchronization therapy defibrillator (CRT-D) was implanted for ventricular arrhythmias. In recent months, he reported worsening exercise tolerance, NYHA II dyspnea, atypical chest pain, and two presyncopal episodes with dizziness but no loss of consciousness. CRT-D interrogation revealed VT/VF episodes without atrial fibrillation and phrenic nerve stimulation, requiring left ventricular lead reprogramming. Coronary angiography showed no significant stenoses, ruling out PCI. However, a markedly dilated RCA (>1 cm) was noted, likely due to compensatory remodeling. Despite surgical repair, the patient developed typical ALCAPA complications, including chronic mitral regurgitation and heart failure, affecting his clinical status.ConclusionALCAPA requires surgical correction to prevent early mortality. However, even after revascularization, heart failure and mitral valve

disease often persist. This case underscores the need for lifelong surveillance and individualized management of heart failure and arrhythmic risks in post-surgical ALCAPA patients.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Małgorzata Kazberuk, Joanna Kruszyńska

Title: A patient in an Emergency Department with intracardiac mass and medical history of cancer – what is the diagnosis?

Abstract No. 71

An important complication of cancer is the increased risk of thromboembolic events due to hypercoagulability due to tumour cells and inflammation. Presence of thrombi within the cardiac cavities poses a particular risk, potentially leading to pulmonary embolism, stroke or serious haemodynamic complications. However, there may be other causes of additional masses in the heart chambers that are unrelated to cancer. Aim:This case report presents a breast cancer patient with pathological structure in the right atrium (RA) of the heart, indicating that every patient should undergo routine diagnostic procedures as any other patient without cancer. Materials and methods:A 51-year-old female patient with a left breast carcinoma after neoadjuvant cycles of chemotherapy, with an ambiguous structure located in the RA which was observed for 2 months, without reduction after anticoagulant therapy, presented to the Emergency Department. The initial diagnosis was not deepened, as the mass was assumed to be a thrombus, moreover the lady had vascular port. The patient underwent treatment with nadroparin followed by enoxaparin, but without success. On admission the patient without heart failure, chest pain or syncope. Results:On physical examination without pathological murmurs. Arterial pressure was 138/98 mmHg. ECG revealed sinus rhythm of 80/min with single ventricular beats. Transthoracic echo revealed a 12x19 mm balloting hyperechoic mass in the RA. In the subcostal view, the lesion appeared to be fixated to the RA wall under the tricuspid valve, periodically passing through it but not causing flow disturbances. In substernal view, the vascular port presented no additional echoes, cardiac contractility normal. On computed tomography angiography (CTA), in the RA lumen, below the tip of the intravascular port, a structure of 15x20x18 mm was visualised.Due to motion artefacts, as well as the positioning of the mass in the proximity of the catheter, a possibility of a thrombus could not be excluded. The CT showed no features of pulmonary embolism. However, transoesophageal echocardiography (TEE) showed a lack of association with the current vascular port entering through the superior vena cava, but periodically touching its tip. The TEE suggested myxoma. The patient was

transferred to the Department of Cardiac Surgery for endovascular treatment via the AngioVac system (AngioDynamics, Latham, NY). Material aspirated from the RA was sent for histopathological examination.Conclusions:This case emphasizes the challenges of diagnosing intracardiac masses in oncological patients. In patients undergoing chemotherapy, a comprehensive evaluation is essential to distinguish between thrombus, tumour infiltration, or other intracardiac abnormalities when an RA mass is detected. The patient's risk of disease and complications should be assessed also independently of a cancer diagnosis.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Aleksandra Świeca

Title: Extensive thrombus in a giant right coronary artery: off-label thrombectomy with a guiding catheter

Abstract No. 72

Introduction:Standard interventional strategies may be inadequate in the setting of a severely dilated coronary artery, where thrombectomy devices often fail and optimal stent sizing is difficult to achieve. We report a case of inferior STEMI with a massively enlarged, thrombus-laden right coronary artery (RCA), successfully treated with guiding catheterassisted aspiration and drug-eluting balloon (DEB) angioplasty, followed by marked lesion regression on follow-up angiography.Case ReportA 52-year-old active smoker with no prior illness was admitted with inferior STEMI after 8 hours of chest pain. He reported transient upper limb paresthesia and mild respiratory symptoms. ECG showed sinus bradycardia (40 bpm), first-degree AV block (PQ 400 ms), ST-segment elevation in II, III, and aVF, with reciprocal depression in I, aVL, and V2–V5. Highsensitivity troponin T was 8721 ng/dl, with elevated CRP and leukocytosis. PCI via radial access revealed a massive thrombotic RCA occlusion located 1 cm distal to the ostium. Two intracoronary boluses of eptifibatide were administered. Aspiration thrombectomy was performed along the entire vessel length, removing a large volume of thrombotic material. TIMI 2–3 flow was restored distally. The patient's symptoms (dyspnea, chest pain) resolved. Postprocedural echocardiography showed inferior wall hypokinesis, reduced left ventricular ejection fraction
(LVEF 38%), and signs of right ventricular dysfunction.Follow-up angiography and intravascular ultrasound (IVUS) the next day showed a patent, markedly dilated RCA with residual thrombus in the proximal and mid segments, along with linear non-obstructive dissections. Widespread mural lesions were noted in the RCA, with no relevant pathology in the left main or LAD. Four days after the initial procedure, due to persistent thrombus and a proximal diameter exceeding 7.5 mm, repeat thrombectomy was performed using a guiding catheter as a thrombectomy device— a non-standard technique in interventional cardiology. Large thrombi were aspirated, with a small residual clot remaining proximally. Due to the large vessel diameter, stenting was not appropriate. Paclitaxel- eluting balloon

angioplasty was performed, restoring TIMI 3 flow. Viral (influenza A/B) and autoimmune (vasculitis) causes were excluded. Thrombophilia testing (factor V Leiden, prothrombin gene mutation) was initiated.The patient was discharged in stable condition. At 1.5-month follow-up, he had quit smoking and reported only mild right-sided paresthesia. Repeat angiography demonstrated a persistently dilated RCA with marked regression of prior thrombotic and mural changes.ConclusionsThis case illustrates a successful strategy for managing thrombotic occlusion in an oversized RCA using guiding catheter-assisted aspiration and DEB angioplasty. In cases where anatomy limits standard approaches, this technique may provide a practical solution.

Book of Abstracts

Session:
CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Weronika Piotrowska, Marta Cabaj

Title: Beyond the Textbook - Unexpected Cause of Hypertension in a Seemingly Healthy Athlete

Abstract No. 73

Fibromuscular dysplasia (FMD) is a rare, idiopathic, non-inflammatory, and nonatherosclerotic vascular disease that results in stenosis of small and medium-sized arteries. It most often occurs unilaterally, and depending on the location of the stenosis, it may lead to renovascular hypertension, stroke, transient ischemic attack (TIA), myocardial infarction and other complications.Case Report: A 50-year-old male patient, ultramarathon runner, with a history of TIA and hypertension (treated irregularly with a single pill combination), was admitted to the Department of Internal Medicine and Hypertension because of elevated blood pressure values. (190/110 mmHg). The patient was a nonsmoker and denied any symptoms of headache or dizziness.Laboratory tests showed mildly elevated NT-pro-BNP and creatinine levels. The ECG showed sinus rhythm without evidence of new ischemia. Ambulatory blood pressure monitoring (ABPM) showed elevated blood pressure with the typical nocturnal dipper. Doppler ultrasonography showed asymmetric renal size (left kidney larger than right) without renal artery stenosis.Hypotensive treatment was started. After intensification of treatment with angiotensin converting enzyme inhibitors, an increase in creatinine and potassium levels was noted. Computed tomography (CT) angiography was performed and both renal arteries showed short segment wall thickening resulting in stenosis with imaging findings typical of fibromuscular dysplasia (FMD).The patient was referred to vascular specialists and underwent successful renal artery angioplasty. He was subsequently enrolled in the FMD registry. Conclusions: Although fibromuscular dysplasia is most common in young women, smokers, and patients with genetic disorders, this case report shows that FMD can affect anyone. As the pathogenesis of the disease is unclear, further research is essential for improved diagnosis and prevention of complications.

Book of Abstracts

Session:

CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Aleksandra Świeca

Title: Navigating PCI complications in a high-risk patient: single kidney, prior TAVR, LAAO, cancer, and stent entrapment during deployment

Abstract No. 74

Percutaneous coronary intervention (PCI) in patients with chronic kidney disease (CKD) presents challenges, as contrast-induced nephropathy (CIN) accelerates renal dysfunction, increasing the risk of dialysis. This is particularly concerning in singlekidney patients, necessitating contrast minimization and hydration strategies.Case ReportA 76-year-old male with heart failure and single-kidney CKD was admitted for PCI of the circumflex artery (CX) due to NYHA class II dyspnea and exertional chest pain. His history included bladder cancer and metastatic prostate cancer, for which he underwent nephroureterectomy, cystoprostatectomy, and ureterocutaneostomy. He had previously undergone transcatheter aortic valve replacement (TAVR) for severe aortic stenosis (2018), multiple stent placements in the left anterior descending artery (LAD) following NSTEMI (March 2021) and left atrial appendage occlusion (LAAO) for atrial fibrillation with prior gastrointestinal bleeding (April 2021). PCI of the CX was performed in July 2023. Due to prior TAVR with a CoreValve prosthesis, cannulation was challenging, requiring a JL 3.5 6F catheter. Intravascular ultrasound revealed a heavily calcified 70% proximal CX stenosis (minimum lumen area 3.0 mm^2). Lesion preparation involved inflation with a noncompliant balloon. A drug-eluting stent failed to advance and, upon balloon shaft withdrawal, remained in the LM-CX segment. The stent was successfully retrieved using four guidewires. Drug-eluting balloon (DEB) angioplasty was performed instead, restoring TIMI 3 flow. The procedure required 230 mL of contrast, leading to an increase in serum creatinine from 1.6 mg/dL (eGFR 45) to 2.0 mg/dL (eGFR 35) by day 5. Aggressive IV hydration and diuretic adjustments were initiated to prevent further renal deterioration. In August 2023, PCI of the LAD confirmed the good result of CX angioplasty. At 14 months post-procedure, the patient remains clinically stable, denying dyspnea, chest pain, syncope, or palpitations. His creatinine remains stable at 2.0 mg/dL (eGFR 34).ConclusionDespite precautions, high contrast doses

are sometimes unavoidable in cases of complications, making it essential to discuss the risks with the patient. Complex angioplasty required stent removal, but DEB balloon angioplasty of the CX was successfully performed with good results. In cases of extensive calcifications and renal insufficiency, DEB can be an alternative to stent implantation with good long-term result.

Book of Abstracts

Session:

CR1 Internal Medicine I - Cardiology
AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Paweł Niczyporuk, Helena Żórawska

Title: Atypical Complication of Influenza A – Rectus Sheath Hematoma in a Patient on Anticoagulant Therapy

Abstract No. 75

Influenza type A represents one of the most prevalent viral infections of the respiratory system that can cause severe complications, particularly in patients with cardiovascular comorbidities undergoing anticoagulant therapy. In such patients, the presence of symptoms such as cough, fever and dehydration, in addition to violent abdominal muscle spasms, can result in blood vessel damage and the formation of hematomas. Case description: A 72-yearold female patient with a medical history of atrial fibrillation, hypertension and cecal cancer following hemicolectomy was admitted to the hospital with a presentation of fever, shortness of breath, vomiting and lower abdominal pain. Laboratory tests revealed elevated inflammatory markers and a positive influenza A test. Imaging studies showed bilateral inflammatory lung lesions and a large rectus abdominis muscle hematoma with active bleeding, likely triggered by coughing and anticoagulation therapy. The management of the patient involved the embolisation of the bleeding vessel, which resulted in effective hemostasis without the need for surgical intervention.Conclusion: Influenza A virus infection has the potential to induce complications that extend beyond the respiratory system, particularly in patients who are at risk, have chronic medical conditions, or are receiving anticoagulant therapy. Respiratory symptoms, inflammation and increased intra-abdominal pressure due to persistent coughing can contribute to secondary complications such as spontaneous hematuria. This emphasises the necessity for heightened monitoring of patients on anticoagulant therapy during infections, which can both increase the risk of thrombosis and promote the occurrence of haemorrhagic complications.

Book of Abstracts

Session:

CR1 Internal Medicine I Cardiology

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Julia Janica, Marta Galicka, Julia Koścień

Title: Rare disorder of the right coronary artery as a reason for sudden, unexpected death

Abstract No. 76

Coronary artery aneurysm is a rare disorder reported in only 1,4% of post-mortem examinations. It is defined as dilation of the coronary artery by 50% of its reference diameter. The pathophysiology of this anatomical abnormality remains unclear however, data suggest that it is tightly linked to atherosclerosis. Moreover, men are more susceptible to developing complications. Most coronary artery aneurysms are found in the proximal and middle segments of the right coronary artery. Clinically, the overwhelming majority of cases are asymptomatic and discovered by accident. Nevertheless, on rare occasions, mechanical complications can occur. One such complication is a rupture of the aneurysm. It can quickly lead to a life-threatening acute heart tamponade. CASE REPORTAn 88-year-old male was found dead, lying on the stairs of his apartment building. As the cause of death was unknown and third-party malicious intent had not been ruled out, the individual was admitted to the Department of Forensic Medicine to conduct a medico-legal autopsy. The external examination showed a wound in the temporal region and fresh abrasions in the frontal and right lower leg regions. Defensive injuries were not observed. Livor mortis and rigor mortis were present. The internal examination revealed many cardiovascular pathologies, including enlarged heart muscle, steatosis of the heart muscle, massive arteriosclerosis, and infarct scar. Blood and numerous thrombi were discovered in the pericardial sac during the gross section. The reason for the bleeding was a rupture of the wall of the right coronary artery. These findings are consistent with the aftermath of an aneurysm's rupture. A toxicology report revealed therapeutic doses of metoprolol. The cause of death was pronounced to be cardiorespiratory failure due to cardiac tamponade caused by a ruptured coronary artery aneurysm. CONCLUSIONSCoronary artery aneurysms remain clinically silent throughout the patient's life this condition should not be overlooked by physicians. The potentially life-threatening complications require careful management. Despite this condition's high risks, the treatment options are still not adequately defined. The current references lack randomized clinical trials comparing management strategies.

Therefore, all patients with coronary aneurysms must receive cardiological care and have their cardiac risk factors under control. This could potentially prevent fatal outcomes.

Book of Abstracts

Session:

CR1 Internal Medicine I Cardiology

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Mateusz Lasota

Title: Occluded Renal Artery Stent Graft Treated with Branched Endovascular Aneurysm Repair (BEVAR)

Abstract No. 78

Acute occlusion of a stent graft following Endovascular Aneurysm Repair (EVAR) can lead to severe complications, including acute kidney infarction. Early detection and appropriate intervention are crucial to mitigate these risks and improve patient outcomes.We present a case of a patient with an occluded renal artery stent graft who underwent treatment with Branched Endovascular Aneurysm Repair (BEVAR).Case ReportThe patient underwent stent graft implantation with visceral artery branches due to an infra-renal abdominal aortic aneurysm. Seventeen days post-implantation, the patient underwent two emergency procedures. First, an urgent embolization of the right renal artery was performed due to a right kidney hematoma.For the first 15 days postoperatively, the patient remained in critical condition, sedated, with gradually improving hemodynamic and ventilatory parameters. By the two weeks, the patient was awake, communicative, and stable, successfully weaned off mechanical ventilation to high flow oxygen through a tracheostomy. He remained hemodynamically stable but developed anuria which triggered a bedside ultrasound of the left kidney, followed by Doppler ultrasound of the renal arteries. Doppler imaging of the left kidney revealed a tardus-parvus flow pattern, suggesting critical stenosis or occlusion of the left renal artery branch.After consultation with the radiologist, the patient was prepared for an endovascular recanalization procedure. Access was obtained via left brachial artery puncture, and two stents (6×60 mm, 7×30 mm) were implanted. Postprocedural arteriography confirmed successful recanalization.ConclusionThis case highlights the value of point-of-care ultrasound in the differential diagnosis of acute kidney injury (AKI) in patient after vascular procedure. Timely imaging with Doppler ultrasound and CT angiography, along with appropriate intervention, remain critical in managing vascular complications post-EVAR to improve patient outcomes.

Book of Abstracts

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors:

Dominika Szczepańska, Dawid Wojciulik, Agnieszka Wasilewska-Chrzanowska, Patrycja Niewrzał, Daria Anna Majchrzak

Title: Bite By A Poisonous Viper In The Place Of Residence And The Effects Of The Toxin - Case Report

Abstract No. 79

The accidents such as viper bites are not ordinary in Poland, especially by poisonous vipers. A poison that gets into the tissues or circulation could be deadly without appropriate treatment. The elderly and children are the majority of victims and the most vulnerable to injected toxins. Nowadays, the diagnosis of snakebites is mostly based on patient history and presented symptoms. However, the level of experience may vary for physicians and hospitals. Thus, despite the rarity of these events it is crucial to know the procedures to be able to save a patient's life.CASE REPORT:A 64-year-old female patient with no previous history of chronic treatment was readmitted from another hospital to the Department of Infectious Diseases and Neuroinfection in July due to a viper bite in her own backyard during farm work. The patient presented with increasing oedema and haemorrhagic changes of the right upper extremity after antitoxin administration. On admission, the patient's clinical condition was quite good, with stable cardiopulmonary function and jugular venous access. The patient was lucid, conscious and oriented to time, place and person. During examination was observed: medial swelling and bruising of the right upper extremity, with haemorrhages. In the following days, increasing swelling and extension of the lesions due to haemolysis were observed: the entire right upper limb, the front of the chest going down to the right inguinal fossa, and the back down to the buttocks. On the day of admission the USG examination was done. It showed that the right subclavicular arteries were with a proper width, flow and velocity. The examination of the right subclavicular vessels showed that the forearm vessels are partially visible due to edema Also there was edema, especially on the dorsal part of a hand probably formed of the pockets of edema.

Due to a significant decrease in haemoglobin (8.1 g/dl), 3 units of red blood cell concentrates, glucocorticosteroids, albumin and fraxiparin were administered, which resulted in a gradual clinical improvement and reduction of the visible lesions. The patient was discharged home after 11 days, with the recommendation to take care of the limb and avoid heavy physical exertion for the next few weeks. CONCLUSIONS: This case report showed a situation of a viper bite which doesn't occur often in Poland. Currently, the most widely used method of diagnosis of snakebite is the syndromic approach. This approach can be highly effective when physicians have knowledge of the symptoms of viper bites and are able to provide proper differential diagnosis. That's why it is so important to share knowledge of such patients' conditions. Sharing such experience can be beneficial for treating patients.

Book of Abstracts

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors:

Stanisław Czachorowski, Julia Matras

Title: Community-acquired C. difficile infection in a 32-year-old male with poultry industryrelated antibiotic exposure

Abstract No. 81

Clostridioides difficile (C. difficile) is a gram-positive anaerobic spore-forming bacterium responsible for infectious diarrhea and pseudomembranous colitis, with significant morbidity and mortality. Risk factors for infection include exposure to broadspectrum antibiotics, recent visits to healthcare facilities (within the last 2-3 months), advanced age (typically over 65 years), immunocompromised states, proton pump inhibitors (PPI) use, and comorbid conditions. While primarily affecting hospitalized individuals over 65 and those in long-term care facilities, community-acquired infections are increasingly recognized. Understanding the changing epidemiology of C. difficile is crucial as cases appear in populations and settings previously considered low-risk.Clinical image: We present the case of a 32-year-old male patient, admitted to the Department Infectious Diseases and Neuroinfections with severe diarrhea. The patient reports no recent hospitalizations or antibiotic therapy and contact with CDI patient, althought he works in a poultry hatchery, where was routinely exposed to antibiotics used in poultry farming.The clinical exam revealed abdominal tenderness on deep palpation, without signs of peritonitis. Five days prior to admission, the patient had up to 15 episodes of foul-smelling diarrhea, with occasional blood streaks. Three days after symptom onset, ambulatory testing confirmed C. difficile toxin and GDH antigen. Ineffective outpatient treatment with metronidazole was initiated, leading to hospital admission. Laboratory examination showed: ALAT - 20 U/L AST - 2 U/L GGT - 28 U/L total bilirubin - 0.58 mg/dL WBC - 8325 cells/mL CRP <0,6 mg/L, creatinine - 0.98 mg/dL, indicating non-severe CDI according to IDSA/SHEA guidelines. Instrumental investigations, including abdominal ultrasound, revealed no significant abnormalities. Symptomatic treatment with dietary modifications and a 10-day course of oral vancomycin (125 mg four times daily) resulted in clinical and biochemical improvement. Follow-up testing revealed negative C. difficile toxin and GDH antigen.Conclusion:This case is

notable for being a community-acquired infection in a young, otherwise healthy individual without traditional risk factors such as recent antibiotic use or hospitalization. It also draws attention to the changing epidemiology of C.difficile infections, which can transpire in community settings outside to scope of typical risk factors. The patient did not have recent antibiotic use or hospitalization, but his occupational exposure to antibiotics in the poultry industry could be a contributing factor. Further investigation into occupational risks, particularly in industries involving antibiotic use in animals, is needed to better understand its role in C. difficile infections. This case emphasizes the importance of considering C.difficile infection in patients with compatible symptoms, even in the absence of traditional risks.

Book of Abstracts

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors:

Małgorzata Resiak

Title: Challenges in diagnosing nephrotic syndrome in a non-endemic country - malaria or HIV? Case report

Abstract No. 83

Plasmodium malaria infection can be persistent and develop symptoms decades after exposure including renal complications. HIV-associated nephropathy (HIVAN) is still an important cause of kidney disease in people with HIV, especially those with African descent. Case report: A 47-year-old Cameroonian woman was admitted to one of the cardiology departments in Poland due to severe generalized oedema, asthenia, and mild lateral abdominal pain. Laboratory investigations revealed acute kidney injury (AKI) and anaemia. The blood smear revealed schizonts in red blood cells (RBC). The patient was transferred to one of the infectious diseases hospitals. At admission to the infectious diseases hospital the laboratory parameters confirmed anaemia and AKI and revealed HIV infection. The blood smear confirmed Plasmodium malarie. The patient hasn't left Poland for the past 2 years and prior to that she had malaria several times in Cameroon. The treatment with artesunate, doxycyline and antiretroviral drugs (BIC/TAF/FTC) was started.The patient received diuretics and albumines. Regardless of the treatment, the patient's clinical condition deteriorated, with worsening oedema, dyspnea, progressive renal dysfunction, and appearance of hypertension. The antiretroviral treatment was adjusted according to renal parameters and was switched to DTG+RPV. Chest radiography showed forming pulmonary oedema and pneumonia. The patient received intensification of diuretics, hypotensive treatment and was treated with ceftriaxone. Due to massive, generalized oedemas, kidney biopsy could not be performed and therefore the mechanism of kidney injury could not be identified. The nephrologists decided to start the patient on corticosteroids leading to a gradual decrease of oedema and stabilization of renal function. The patient was discharged with a plan for further diagnostic workup. After a month the patient did not show up for the nephrologists consultation. Her general state was good, she lost 15kg of weight, had no oedemas, was still taking corticosteroids, but still had

parameters of kidney injury.Conclusions: This case demonstrates difficulties in diagnosis of malaria and HIV co-infection in non-endemic countries. Awareness of asymptomatic malaria infection is needed. Patients from endemic countries who suddenly develop nephrotic syndrome should be diagnosed for both malaria and HIV.

Book of Abstracts

Session:

CR2 Internal Medicine II - Infectious diseases
AULA 4

FRI 25.04.2025 12:30-14:30

Authors: Magdalena Chlabicz, Natalia Koda

Title: Challenges in diagnosis of a rare case of tuberculous cervical lymphadenitis and cutaneous tuberculosis in an elderly woman

Abstract No. 84

Tuberculosis is a contagious, infectious disease caused by Mycobacterium tuberculosis complex. It remains a significant global health challenge, with an estimated 10.8 million cases reported worldwide in 2023. Pulmonary tuberculosis typically affects the lung parenchyma, whereas extrapulmonary tuberculosis (EPTB) can affect other organs. EPTB exhibits a diverse range of nonspecific clinical features that vary depending on an affected organ, which can frequently pose a significant diagnostic challenge. Therefore, early diagnosis and implementation of early treatment are essential. AimOur aim in this study is to demonstrate difficulties in diagnosing and treating EPTB in non-endemic countries.Case report An 80-year-old female patient with a history of hypertension and hypercholesterolemia was referred to the Department of Infectious Diseases and Neuroinfection in March 2024 with a diagnosis of cervical lymphadenopathy. Patient reported cervical lymph node enlargement and arthralgia over the past three months. In January 2024 lymph node biopsy revealed features of granulomatous inflammation. Upon admission to the department, the patient presented a fair general condition. Physical examination revealed swelling and erythema of a lymph node with afistula on the right side of the neck. A Quantiferon test was performed with a positive result. A Polymerase Chain Reaction (PCR)-based genetic test for the Mycobacterium tuberculosis complex yielded negative results. The direct smear for acid-fast bacilli (AFB) did not reveal the presence of AFB. Treatment with doxycycline led to a marked reduction in erythema and complete resolution of the fistula, thus demonstrating significant local improvements. Patient was discharged in fair general condition and recommendation for doxycycline and further control. After two weeks of treatment, the prescribed therapy was deemed to be ineffective.
Consequently, a new treatment was initiated, consisting of rifampicin and ciprofloxacin

AULA 4

administered over the subsequent month. The treatment was found to be ineffective, and consequently, a fistula developed on the other side of the neck. In June 2024, culture results confirmed a Mycobacterium tuberculosis complex infection. The commencement of a fourdrug (isoniazid, rifampicin, pyrazinamide and ethambutol) anti-tuberculosis treatment regimen was initiated in accordance with the recommended protocol. Patient's fistula exhibited signs of healing and formation of scar tissue.ConclusionWe present a rare case of a patient with coexisting tuberculous lymphadenitis and cutaneous tuberculosis with the definitive diagnosis being established six months after symptom onset. The non-specific nature of the symptoms significantly delayed the diagnostic process and targeted therapy initiation. This case underscores the diagnostic challenges associated with EPTB. Prompt recognition of symptoms is essential to minimize disease progression and improve patient outcomes.

Book of Abstracts

-

Session:
CR2 Internal Medicine II - Infectious diseases
AULA 4
FRI 25.04.2025 12:30-14:30

Authors: Michał Dowiatt

Title: Vertical transmission of human immunodeficiency virus (HIV) during breastfeeding

Abstract No. 85

A woman living with HIV can give birth to an HIV-uninfected baby, provided that appropriate prophylaxis ofvertical transmission is followed. If HIV infection is detected in pregnancy, it is necessary to startantiretroviral treatment as soon as possible to reduce the HIV viral load in the pregnant woman.Breastfeeding by HIV-infected women is not recommended.Case report:An 18-year-old woman presented to the Infectious Diseases Hospital in Warsaw. The patient's HIV positivetest was performed after recent confirmation of HIV infection in her 20month-old daughter. She had beentested for HIV twice during her pregnancy. Both results (from the first trimester and the day of delivery)were negative. After delivery, the patient breastfed her baby. Several months after delivery, she met a newpartner. The partner is HIVpositive and has discontinued antiretroviral treatment.Physical examination of the patient revealed palpable single lymph nodes in the neck. In laboratory tests:positive HIV screening test, positive Western-blot test for HIV-1, HIV RNA 39700 copies/mL. HIV infectionwas confirmed. CD4+ T-lymphocyte count 780 cells/mL, CD4/CD8 0.57. Other infections were excluded.The presence of the HLA-B*5701 allele was excluded. Antiretroviral treatment was started with a regimen ofdolutegravir, abacavir and lamivudine. The patient was discharged home in good general condition.Conclusion:The clinical case presented here underscores the crucial role of early diagnosis and effective prophylaxis inpreventing vertical transmission of HIV. Despite adherence to standard diagnostic procedures, the infant'sinfection most likely occurred as a result of breastfeeding. In order to effectively minimize the risk of viraltransmission, it is essential to implement appropriate antiretroviral treatment, strict adherence to feedingregimens and the use of prophylaxis in the newborn. It is equally important to educate patients about therisks of HIV transmission and methods of its prevention.

Book of Abstracts

-

Book of Abstracts

-

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Ahmad Reza Rezaei

Title: Tick-borne encephalitis (TBE) in an Infant Living by the Forest

Abstract No. 86

Tick-borne encephalitis (TBE) is a viral neuroinfection caused by the tick-borne encephalitis virus (TBEV), a Flavivirus, transmitted by Ixodes ticks in Asia and Europe. The infection typically evolves from a flu-like stage to neurological involvement, potentially leading to meningoencephalitis and long-term sequalae. While TBE can affect individuals of any age, infants are rarely affected, with only a few reported cases in children under one year of age in Europe. Children generally experience a milder course of illness compared to adults, but central nervous system involvement can still occur, even in infancy.CASE REPORT: A 10month-old male infant living in an area endemic for TBE, presented with a 5-day history of fever, irritability, apathy, and hyperesthesia. Prior to this, he was hospitalized for pneumonia, and was re-hospitalized due to recurrent fever and neurological symptoms. Serological testing revealed positive IgM and IgG antibodies against TBEV. Cerebrospinal fluid (CSF) analysis showed a cytosis of 28 cells/µL, with no bacterial or viral pathogens detected by PCR. Empirical antibiotic therapy and intracranial pressure management were initiated, leading to clinical improvement. The infant was discharged in good general condition after a negative CSF culture.At a follow-up visit one month later, the infant had fully recovered. The infection was likely acquired through an unnoticed tick bite, as the mother was vaccinated and seropositive for TBE, and the infant was not vaccinated due to his age.CONCLUSIONS: This case highlights the importance of considering TBE in infants presenting with fever and neurological symptoms, especially in endemic regions. Early serological testing and CSF analysis are crucial for diagnosis. Although rare, TBE in infants can have a favorable outcome with prompt management. Public health measures, including

-

vaccination and tick prevention, should be emphasized in high-risk areas to prevent such infections.

Book of Abstracts

-

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Natalia Czerwik

Title: Hemophagocytic lymphohistiocytosis in the Setting of Unrecognized Primary Immunodeficiency

Abstract No. 87

Hemophagocytic lymphohistiocytosis (HLH) is a life-threatening hyperinflammatory syndrome caused by excessive immune activation, leading to multi-organ dysfunction. It can be primary (genetic) or secondary, often triggered by infections (EBV), malignancies, or autoimmune diseases. DiGeorge syndrome is a rare congenital disorder characterized by thymic hypoplasia, T-cell deficiency, hypoparathyroidism, and congenital heart defects with haploinsufficiency or pathogenic TBX1 variants playing a key role. Its clinical presentation varies and the occurrence of only a few, minor abnormalities may delay diagnosis until adulthood. While HLH is not commonly associated with DiGeorge syndrome, some cases suggest a potential link.Case ReportIn November 2021, a 51-year-old woman with hypoparathyroidism, hearing impairment, chronic neutropenia, and resolved hepatitis C was admitted with high-grade fever (38.9°C), fatigue, and night sweats. Laboratory tests revealed mild pancytopenia (WBC 1.46×10³/µL, Hb 9.9 g/dL, Plt 102×10³/µL), elevated ferritin (3,315 ng/mL), and high ESR (110 mm/h). A trepanobiopsy was performed and during hospitalization her condition improved, allowing her to be discharged while awaiting results. A week later, she was readmitted with worsening pancytopenia (WBC 0.8×10³/µL, Hb 7.3 g/dL, Plt 15×10³/µL), pleural effusion, splenomegaly, and lymphadenopathy. Additional findings included severe hyperferritinemia (91,000 ng/mL), hypertriglyceridemia (866 mg/dL), and hypofibrinogenemia (149 mg/dL). The combined clinical and laboratory findings were consistent with an HLH diagnosis based on HLH-2004 criteria. There was a high viremia (EBV 73,000 copies/mL). The patient was treated with the HLH-94 protocol (etoposide, dexamethasone) and rituximab for EBV. Her condition improved, ferritin normalized and EBV load dropped to 695 IU/mL. She was discharged in good condition. In

-

January 2022, she contracted SARS-CoV-2, triggering HLH relapse. Despite retreatment, her condition worsened, leading to multi-organ failure and death in March 2022. Genetic testing confirmed a TBX1 mutation, diagnosing DiGeorge syndrome, which could contribute to her immune dysregulation and HLH CR2 Internal Medicine II - Infectious diseases susceptibility.ConclusionsThis case indicates the relationship between genetic immunodeficiency, viral infection, and HLH. It also shows the problems of diagnosing genetic disorders in adulthood, especially if the manifestations of the disease are not pronounced or delayed.

Book of Abstracts

-

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Martyna Winiecka

Title: When Sepsis Isn't Just Sepsis: Recognizing and Managing Sepsis-HLH Overlap Syndrome

Abstract No. 88

Sepsis-Hemophagocytic Lymphohistiocytosis overlap syndrome (SHLHOS) is a rare lifethreatening condition of excessive immune activation leading to multiorgan failure. Due to overlapping clinical features with a septic shock, it is often underdiagnosed. We present a case of a 25-year-old male with multiorgan failure and features of HLH, successfully managed with therapeutic plasma exchange (TPE) and immunomodulatory therapy.Case ReportA 25year-old male was admitted to the intensive care unit with septic shock. He was initially awake and alert but rapidly deteriorated, developing refractory shock that required escalating doses of vasopressors. His condition progressed to acute kidney failure, requiring dialysis, and he exhibited severe coagulopathy consistent with disseminated intravascular coagulation (DIC). Progressive respiratory failure necessitated endotracheal intubation and mechanical ventilation. The patient developed metabolic acidosis and underwent sustained lowefficiency dialysis (SLEDD). Inflammatory markers were elevated (ferritin 10,000 ng/mL, IL-6>50,000 pg/mL, procalcitonin 172 ng/mL). Despite the initial treatment including broadspectrum antibiotics, meropenem and vancomycin, and antiviral coverage, as well as an extensive infectious workup—including negative blood, bronchoalveolar lavage (BAL), and urine cultures, along with a negative serology screen—the patient's condition continued to deteriorate. Suspecting SHLHOS, treatment with steroids was initiated alongside therapeutic plasma exchange (TPE) with fresh frozen plasma, intravenous immunoglobulins (IVIG), and antithrombin III. TPE was used to remove inflammatory mediators and stabilize the patient. After 7 weeks in the ICU, the patient was transferred to a step-down unit.ConclusionsSepsisHLH Overlap Syndrome (SHLHOS) is a challenging

-

diagnosis due to the overlapping clinical features of both conditions and the risks of immunosuppressive treatment in a septic patient. This case highlights the need of early recognition and multimodal therapy to mitigate the inflammatory response and prevent organ damage. Given the balance between immunosuppression and the risk of worsening infection, therapeutic plasma exchange and intravenous immunoglobulins were used to modulate immune dysregulation, but their effectiveness in SHLHOS remains unclear, as there are no randomized controlled trials due - Infectious diseases the rarity of the condition. This underscores the need for research to establish evidencebased treatment.

Book of Abstracts

-

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Karolina Kłodnicka

Title: Disappearing Skin Lesions: The Secret to Effective Diagnosis of Terra Firma Forme Dermatosis

Abstract No. 89

Terra Firma Forme Dermatosis (TFF) is a benign skin condition characterized by the presence of brown or black plaques and papules, often in the skin fold areas, with a specific clinical presentation. It was first described by Duncan in 1987 and is also known as Duncan's dirty dermatosis. The condition is usually asymptomatic and does not involve inflammatory changes or pruritus. A key aspect of diagnosing TFF is distinguishing it from other dermatological disorders, such as acanthosis nigricans.Case reportThis case concerns a 15year-old boy, a technical automotive school student, who presented to the family doctor due to brown macules on the neck and upper limbs noticed by his parents. Initial tests, including the assessment of basic biochemical parameters such as: blood count, glucose, insulin, liver function tests, hormonal panel, and lipid profile, showed no abnormalities. Therefore the patient was referred for a dermatological consultation. Dermoscopy revealed polygonal brown clods arranged in a mosaic pattern. After the application of 70% isopropyl alcohol, the lesions disappeared, leading to the diagnosis of Terra Firma Forme Dermatosis.ConclusionThis case suggests that Terra Firma Forme Dermatosis can be easily diagnosed and effectively treated using 70% isopropyl alcohol, making this method a simple and effective alternative in the diagnosis and therapy of this benign dermatosis. Early recognition of this condition helps avoid unnecessary biopsies, blood tests, and prolonged pharmacological treatments.

Book of Abstracts

-

Session:

CR2 Internal Medicine II Infectious diseases

AULA 3

FRI 25.04.2025 12:30-14:30

Authors: Natalia Piaszczyńska, Anna Rubets, Estera Mioduszewska

Title: An unexpected Diagnosis: Influenza-Associated Pneumonia Unveils Hidden Mesothelioma in an Elderly Patient

Abstract No. 90

Mesothelioma is a rare, fatal, fast-growing form of cancer. The prognosis for the patients are poor, however there is a tri-modal therapy, including surgery, chemotherapy and radiotherapy, since the most effective method is surgical treatment.Clinical case: A 74yearsold woman, with a medical history of heart failure, hypertension, bipolar disorder, hypothyroidism, and previously undergone cholecystectomy was admitted to the hospital due to a deterioration in her general condition and decreased appetite. On the admission, the patient was drowsy, with limited logical contact. Pneumonia caused by the influenza virus was diagnosed. During hospitalization numerous tests were ordered, including blood tests, chest and head CT scan, chest X-ray, ECG, abdominal ultrasonography. The tests revealed abnormalities associated with the patient's chronic diseases, her overall condition, and the ongoing pneumonia. However, the most surprising finding was the result of the CT scan, which revealed multiple merging nodular masses on the parietal pleura, mediastinum, and the oblique fissure of the right lung. A suspicion of mesothelioma was raised, however, due to the extent of the lesions, the patient was disqualified from surgical treatment.Conclusion: This case demonstrates that mesothelioma is a cancer with nonspecific symptoms that appear late, which often leads to its diagnosis at an advanced stage when radical surgery is no longer possible. In some cases, as seen here, the diagnosis is made incidentally.

Book of Abstracts

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Oliwia Skwiercz, Filip Bossowski

Title: A dual autoimmune challenge: exploring the connection between Type 1 Diabetes and Vitiligo

Abstract No. 91

Type 1 diabetes is a chronic autoimmune disease characterized by the destruction of pancreatic β-cells, leading to an absolute insulin deficiency. Due to its autoimmune pathogenesis, patients with this condition are at increased risk of developing other immunemediated disorders, such as vitiligo, autoimmune thyroid diseases, or celiac disease. Early identification of these conditions is crucial for optimizing therapy and preventing metabolic complications. Introducing a personal insulin pump is significant in improving glycemic control and the patient's quality of life. Still, it requires careful qualification, through education, and close monitoring of metabolic parameters.Case ReportThe patient is an 11.5year-old boy diagnosed with type 1 diabetes at the age of 8 and experiencing progressive vitiligo for over a year. He had previously been treated with multiple daily insulin injections (Fiasp, Tresiba). Glucose levels were monitored using a continuous glucose monitoring system (CGMS). His most recent HbA1c measurement was 10.1%, indicating suboptimal metabolic control. As a result, the patient was qualified for a transition to insulin pump therapy.At admission, his general condition was good however, abdominal skin examination revealed adhesions and multiple depigmented patches. Laboratory tests showed an HbA1c level of 10.8%, indicating persistent hyperglycemia. Thyroid function assessment confirmed euthyroidism and anti-thyroid antibodies (ATG and ATPO) were present at low titers. Screening for celiac disease was negative for tissue transglutaminase antibodies. Renal parameters, including the albumin-to-creatinine ratio (ACR), were within normal limits. The ECG showed no abnormalities for his age. During hospitalization, continuous subcutaneous insulin infusion (CSII) therapy was initiated, and the patient and his caregivers received comprehensive training in insulin pump management and dietary care.SummaryThe coexistence of type 1 diabetes and vitiligo

confirms the autoimmune basis of the disease and increases the risk of developing additional autoimmune conditions, such as autoimmune thyroiditis or celiac disease. Therefore, regular monitoring of thyroid endocrine function and periodic serological screening for celiac disease—especially when clinical symptoms is essential. In the context of insulin therapy, proper skin care and regular rotation of injection/infusion sites are necessary to minimize the risk of lipodystrophy and local skin complications. Effective treatment of patients with type 1 diabetes and coexisting autoimmune diseases requires a multidisciplinary approach involving diabetologists, endocrinologists, dermatologists, and dietitians, allowing for optimized therapy and improved patient quality of life.

Book of Abstracts

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Aoife Gorman

Title: A case of primary brain gamma-delta T-cell Lymphoma complicated by Hemophagocytic Lymphohystiocytosis – a case study

Abstract No. 94

Primary central nervous system (CNS) gamma-delta (γδ) T-cell lymphoma is a rare and aggressive extranodal malignancy arising in the brain, spinal cord, or leptomeninges. Due to its rarity and overlapping features with neuroinflammatory, infectious, and autoimmune conditions, diagnosis is often delayed. We present the case of a 13-yearold boy who initially showed signs of systemic inflammation and neurological deterioration, leading to a working diagnosis of encephalitis of unknown cause and empirical treatment. Despite initial improvement, his condition worsened, and further evaluation ultimately revealed primary CNS γδ T-cell lymphoma with concurrent hemophagocytic lymphohistiocytosis (HLH), a severe hyperinflammatory syndrome characterized by excessive immune activation, fever, cytopenia, and multi-organ dysfunction.Case PresentationA previously healthy 13-year-old boy presented with persistent fever, joint pain, non-itchy rash with petechiae, and intermittent facial and ankle swelling. Initial laboratory evaluation revealed hypoalbuminemia, elevated aminotransferases, increased LDH, low complement C3, and mild microcytic anemia, prompting an extensive workup. Neurological symptoms, including fatigue, apathy, cognitive slowing, headaches, and asymmetric facial weakness, developed during hospitalization. Brain MRI showed multiple scattered T2 hyperintensities in the hemispheres, cerebellar peduncles, and brainstem, without contrast enhancement. CSF analysis revealed mononuclear pleocytosis (134 cells/µL), elevated protein (124 mg/dL), and additional oligoclonal bands. No infectious or autoimmune etiology was identified despite comprehensive testing. Empirical treatment with antibiotics, highdose corticosteroids, IV immunoglobulins, and supportive care was initiated for suspected encephalitis of unknown origin, leading to initial clinical improvement.

However, the patient subsequently deteriorated, with recurrent fever, worsening cytopenia (low platelets, neutropenia), and progressive fatigue. He was then transferred to a neurology center in Warsaw, where a brain biopsy confirmed primary CNS γδ T-cell lymphoma. Further evaluation led to the additional diagnosis of concurrent HLH. Despite treatment with ongoing immunosuppressive therapy and supportive care, the disease remained highly aggressive.ConclusionThis case highlights the complexity of diagnosing primary CNS γδ T-cell lymphoma, a rare and aggressive malignancy with overlapping inflammatory and autoimmune features. The presence of systemic immune activation further complicated diagnoses and management, underscoring the need for early recognition and a multidisciplinary diagnostic approach. This report contributes to the growing awareness of unusual presentations of aggressive T-cell lymphomas and the importance of individualized treatment strategies in such cases.

Book of Abstracts

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Michalina Grześkowiak, Natasza Leśków

Title: Idiopathic refractory HLH - a case report

Abstract No. 95

Hemophagocytic lymphohistiocytosis (HLH) is a hyperactive inflammatory response that results in hypercytokinemia, macrophage infiltration, and multiple organ failure. It can be primary, caused by genetic factors or secondary, connected to e.g. infections or neoplasia. Sometimes, the cause of HLH remains unknown.Case reportAn 11-monthold male patient presented an antipyretic drug-resistant fever of 40 degrees. Laboratory results revealed pancytopenia and hyperferritinemia. The patient presented with hepatosplenomegaly, oedemic hands, feet, and eyelids. No lymphadenopathy was detected. The ultrasound showed pleural and peritoneal effusion. Wide-spectrum antibiotics were implemented with little clinical result. The patient was referred to the Pediatric Oncology, Hematology and Transplantation Department. Over the following days, a further increase in ferritin levels was noticed. The laboratory tests revealed hypertriglyceridemia and hypofibrinogenemia. Based on the exacerbation of the patient's condition, HLH was suspected. An aspiration biopsy of bone marrow results excluded leukaemia. A decreased percentage of NK cells was detected. The diagnosis of HLH was made, and HLH-2004 protocol treatment was implemented. The diagnostic process included genetic tests and imaging diagnostics as well. No pathogenic gene variants related to HLH were found. MRI of the patient's brain was suggestive of CLIPPERS syndrome and revealed cerebral atrophy. Despite the primary good response to steroid therapy combined with etoposide and cyclosporine A, the patient responded with fever, oedema exacerbation, increase in ferritin, CRP levels, and a reduction in blood cell count to the reduction of dexamethasone doses, indicating HLH reactivation. The patient was referred to an allogeneic bone marrow transplant (allo-HSCT). Treatment with ruxolitinib was implemented, which proved effective and reflected in gradual clinical symptoms' alleviation and laboratory results' improvement.

Furthermore, dexamethasone doses were successfully reduced. Three months after the HLH diagnosis, allo-HSCT from an unrelated donor was performed. Disease remission was achieved. However, there was another disease reactivation resulting in multiple organ dysfunction. Despite anakira treatment and intensive care, the patient died 7 months after the diagnosis.ConclusionsBased on conducted research and scientific data, patients suffering from idiopathic HLH or HLH secondary to infections other than EBV achieve better overall 5year survival rates (76%). However, HLH remains a complex disease to diagnose and treat. Should treatment resistance occur, there is no standardized protocol to follow. The presented case illustrates a patient with treatmentresistant idiopathic HLH, who died despite the use of modern therapy methods and allo-HSCT.

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Jan Topczewski

Title: Chronic Hyperamylasemia and Hyperlipasemia in a 5-Year-Old Girl Leading to an Unusual Diagnosis

Abstract No. 96

Elevated serum lipase or amylase activity are common biochemical findings and valuable diagnostic indicators in acute and chronic pancreatitis patients. However, these abnormalities are not specific to pancreatic disorders and may also occur in other conditions, including salivary gland diseases and renal or hepatic insufficiency. We present a case of a 5year-old girl with chronic hyperamylasemia and hyperlipasemia.Case report: A 5year-old girl was admitted to our department due to ambulatory assessed hyperlipasemia (295 U/L, upper limit: 34 U/L) and hyperamylasemia (268 U/L, upper limit: 100 U/L). At the admission, the girl did not present any abdominal pain or other symptoms suggestive of pancreatic disease. Magnetic resonance cholangiopancreatography (MRCP) was performed, revealing mild pancreatic oedema. The serum creatinine level, as well as aspartate and alanine transferase activities, were within normal limits, ruling out renal and hepatic causes of hyperenzymemia. The calprotectin stool test, elastase activity in the stool, and serologic tests for coeliac disease showed no abnormalities. The serum amylase and lipase levels remained elevated in subsequent measurements. After a few months, gastroscopy was performed. A firm round subepithelial lesion with a central depression in the prepyloric region was found. Based on typical macroscopic appearance, ectopic pancreas was diagnosed.Conclusion: Hyperamylasemia and hyperlipasemia are important clinical features that require careful evaluation. Ectopic pancreas is defined as the presence of welldifferentiated pancreatic tissue without an anatomical or vascular connection to the normal pancreas. To our knowledge, this is the first fully described paediatric case of the ectopic pancreas as a potential reason for hyperamylasemia with hyperlipasemia.

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Natalia Aleksander, Adrian Bukała, Wiktoria Borowska, Katarzyna Czapla, Krzysztof Bylok

Title: “Beyond the diagnosis: A remarkable journey of a 7-year-old Girl with Patau Syndrome. Case report”

Abstract No. 97

Patau syndrome or Trisomy 13 is a rare genetic disease with a high mortality rate and poor prognosis, most of the carriers die before completing the first year of life - median survival time is 7 to 10 days without intervention. It is characterized by cleft lip, cleft palate, cerebral defects, polydactyly, anophthalmia, simian creases, trigger thumbs and capillary hemangiomata. Patients surviving past infancy have severe psychomotor disorders, failure to thrive, intellectual disability and seizures. Some features, such as female sex and mosaic trisomy 13 are thought to be positive prognostic factors. Here we report a 7-year-old female patient with Patau syndrome (meiotic nondisjunction, diagnosed prenatally) born prematurely at 35+6 weeks from a vaginal delivery as a third child of 33 years old healthy and unrelated parents. The birth weight was 2087 grams, Apgar scored 9 at 1 minute and 10 at 5 minutes, also self ventilating in air since birth. The patient has several associated congenital abnormalities however medical adjustments such as multiple surgeries, PEG, hearing aids, glasses, anti-epileptic medications and suction machine support the girl’s daily life. The patient attends a primary school with a specialistic provision that fosters her physical and sensory development, accompanies her family’s mountain expeditions and progresses in communication. Despite the numerous obstacles she faces, the girl’s journey demonstrates remarkable growth and development with the support of an interdisciplinary care team. It highlights the critical role of personalized care and early intervention. Due to the increasing survival rates of patients with Patau syndrome, complex and multidisciplinary care is required for both the patients and their families to achieve the best possible outcomes and ensure proper care, growth, and development of the child. All medical procedures must be thoroughly assessed for potential complications and viable improvement in quality of life.

Session:

CR3 Paediatrics I
AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Blanka Bugajewska, Agata Wińska

Title: “From skin lesions to diagnosis: The role of dermatological symptoms in pediatric Hodgkin’s Lymphoma”

Abstract No. 98

Skin manifestations in Hodgkins lymphoma can be divided into two groups. The first group includes specific changes, where the skin is infiltrated by cancer cells. The second, more common group consists of nonspecific changes, where the tumor does not infiltrate the skin. These are paraneoplastic changes.CASE DESCRIPTION:A 15-yearold boy was admitted to the hospital in 2019 with suspected proliferative disease. The medical history revealed a subcutaneous mass in the right upper abdomen, and an abdominal ultrasound showed lymph node clusters filling the hilum of the liver and spleen. Upon admission, the patient presented with severe erythematous and scaling lesions on his feet, torso, and genital area, as well as thickened, yellowed toenails and scaling of the scalp. Based on imaging and histopathological studies, the stage of Hodgkin's lymphoma was assessed as IIIA, with a therapeutic group TL-2 according to the Euro-Net-PHL protocol. The patient began the OEPA chemotherapy regimen. During the first week of therapy, the skin lesions and lymph node conglomerates gradually, initially in an unstable manner, began to regress. The day before the planned discharge, the patient experienced an episode of massive pulmonary embolism with associated shortness of breath, hypotension, and chest pain. The patient was urgently transferred to the intensive care unit, where he received fibrinolytic treatment. After the resolution of the embolism symptoms, the boy was transferred back to the Department of Pediatrics, Oncology, and Hematology, where chemotherapy was continued. The patient achieved remission of the primary disease, and in April 2024, due to his age, he was transferred to the care of an oncologist specializing in adult patients.CONCLUSIONS:Hodgkin’s lymphoma in children rarely presents with dermatological manifestations however, they can be an important diagnostic clue. In the presented case, the skin changes were paraneoplastic and resolved following the initiation

of chemotherapy. This highlights the need to consider Hodgkin's lymphoma in diagnosing persistent, widespread dermatological abnormalities in pediatric patients. Early recognition and timely treatment can lead to the regression of skin symptoms, emphasizing their secondary nature and reversibility with effective oncologic therapy.

Session:

CR3 Paediatrics I
AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Gabriela Adamiak, Maria Bardziak, Joanna Szpala

Title: The intronic mutation c.6010-10G>A in the NSD1 gene detected in an 18-year-old female with Sotos syndrome

Abstract No. 100

Sotos syndrome (SS) is a rare genetic disorder characterized by accelerated growth,advanced bone maturation, developmental delay, and a distinctive facial phenotype.The syndrom's etiology is associated with pathogenic heterozygous variants or deletionswithin the NSD1 gene, which encodes a histone methyltransferase involved in chromatinregulation. Most mutations occur de novo, although cases of autosomal dominantinheritance have also been reported. The aim of our study is to present a case of apatient in whom an intronic variant
c.6010-10G>A was identified in one of the alleles ofthe NSD1 gene.AIMWe present the case of an 18-year-old woman who was referred to the geneticcounseling clinic for diagnostic evaluation due to suspected Sotos syndrome. Clinicalexamination revealed overgrowth, developmental delay, seizures, and anxiety attacks.Brain MRI demonstrated mild ventricular dilatation and corpus callosum hypoplasia.Molecular testing using the MLPA method did not reveal any genomic imbalance in thecritical regions associated with microdeletion/microduplication syndromes. The patientwas referred for further diagnostic evaluation. Next-generation sequencing (NGS)identified an intronic variant c.6010-10G>A in one of the alleles of the NSD1 gene, whichwas subsequently confirmed by Sanger sequencing.CONCLUSIONThe use of modern diagnostic techniques, such as NGS, enables the identification ofnew genetic variants present in Sotos syndrome, which may contribute to a betterunderstanding of the molecular mechanisms of the disease and the development ofmore effective therapies. The detected variant has not been previously described in theliterature. Therefore, it is necessary to further investigate its significance in relation to theclinical course of the disease and prognosis. In this regard, it is appropriate to performtesting on the patient's parents to determine the presence of the identified variant.

Session:

CR3 Paediatrics I

AULA 1

SAT 26.04.2025 10:00-12:00

Authors: Maria Masłowska, Magdalena Skorupska

Title: Managing Type 1 Diabetes in a Pediatric Patient: Challenges and Solutions

Abstract No. 101

Intensive insulin therapy using personal insulin pumps and continuous glucose monitoring (CGM) devices is essential for effectively managing Type 1 Diabetes (T1D). However, achieving the best possible glycaemic control necessitates a tailored approach to therapeutic technologies, thorough education for both patients and their families, and consistent psychological support, especially within paediatric groups.Case DescriptionWe present the case of a 14-year-old female diagnosed with T1D at age 10, initially presenting with severe hyperglycaemia (HbA1c 12%) and diabetic ketoacidosis (pH 7.0). Initially managed with multiple daily insulin injections (MDI), she transitioned to continuous subcutaneous insulin infusion (CSII, Roche Combo + Dexcom). After this adjustment, notable progress was observed (HbA1c 5.7–6.5%, TIR 86%). Nevertheless, from the beginning of 2022, the patient's glycaemic management noticeably declined (HbA1c 10.94% in March), which required hospitalization. A psychological assessment indicated considerable stress and reduced motivation, intensified by family issues, which led to insufficient adherence to treatment. In October 2022, the patient experienced a severe diabetic ketoacidosis episode (hyperglycaemia 492 mg/dl, pH 6.99), prompting an immediate return to MDI therapy and intensive diabetes re-education. Despite these interventions, persistently poor metabolic control (HbA1c 12.33%) continued into late 2023. In November 2023, routine thyroid ultrasonography due to prolonged glycaemic instability revealed an incidental hypoechoic thyroid lesion, which fine-needle aspiration biopsy confirmed as papillary thyroid carcinoma (Bethesda category V). The patient underwent a successful thyroidectomy with lymph node dissection (pT1a N1 R0) and subsequent levothyroxine supplementation. In February 2024, the patient began using the MiniMed™ 780G advanced hybrid closed-loop (AHCL) system, leading to significant improvements in metabolic health. Glycated haemoglobin (HbA1c) levels stabilised within a range of 6.7– 7.3%, and Time in Range (TIR) values consistently remained between 64–77%. These changes markedly improved the patient's overall glycaemic control.ConclusionsThis instance emphasizes the importance of swiftly recognizing and managing psychological and

emotional factors impacting diabetes management. Ongoing educational resources and customized therapeutic interventions are paramount. Advanced hybrid closed-loop insulin delivery systems (AHCL) substantially enhance metabolic control, thereby diminishing the likelihood of complications and hospitalizations, while also significantly improving the patient's quality of life. Given the co-occurrence of T1D and thyroid cancer, interdisciplinary collaboration among diabetologists, endocrinologists, oncologists, psychologists, and educators is essential to meet the intricate and comprehensive needs of patients.

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Oliwia Porucznik, Weronika Samełko, Julia Kardasz

Title: Prevention of cardiovascular events through early detection of renovascular hypertension- a case report.

Abstract No. 102

Renovascular hypertension is the second most common form of secondary hypertension. Atherosclerotic renal artery stenosis is the primary cause, and its occurrence increases with age. Special diagnostic attention is required when blood pressure control deteriorates after being previously well-managed with antihypertensive therapy. Hemodynamically significant renal artery stenosis leads to increased activation of the renin-angiotensin-aldosterone system, resulting in a cascade of changes that adversely affect the cardiovascular system. Coronary artery disease, myocardial infarction and coronary revascularization, which are caused by changes in the RAAS, are associated with a higher risk of hospitalization. Patients with this condition are classified as being at very high cardiovascular risk.CASE REPORTA 67year-old female patient with a long-standing history of hypertension, hypercholesterolemia and degenerative spine disease was hospitalized due to treatmentresistant hypertension (BP 246/146 mmHg) and dizziness, despite taking antihypertensive medications. The patient reported weakness, a burning sensation behind the sternum, and paroxysmal, stabbing chest pain radiating to the left scapula, accompanied by dyspnea. She denied nausea, headache, or visual disturbances.Physical examination revealed slight lower extremity oedema, a BMI of 30.0, blood pressure of 198/105 mmHg and a regular heart rate of 64/min. Laboratory tests showed albuminuria, elevated NTproBNP levels and hyperlipidemia. Echocardiography demonstrated mild left atrial enlargement, no significant valvular defects, normal left ventricular ejection fraction and mild diastolic dysfunction.Doppler ultrasonography revealed atherosclerotic renal artery stenosis of 50– 70%. Further evaluation with abdominal CT angiography confirmed approximately 70% stenosis of the right renal artery. Consequently, intensified antihypertensive treatment was implemented, resulting in stabilization of blood pressure values and improvement in the patient’s overall condition.The patient was advised to modify her lifestyle, adhere to the DASH diet, regularly monitor blood pressure, and

continue antihypertensive and lipidlowering therapy. She was referred to a cardiology clinic for further assessment and monitoring.CONCLUSIONSThis clinical case illustrates that sudden worsening of previously well-controlled hypertension requires expanded diagnostics for secondary hypertension. Early detection of renal artery stenosis allows for optimization of antihypertensive and lipidlowering therapy, reduction of RAAS activation, and minimization of cardiovascular event risk.

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Jakub Słoń, Paulina Świętoń, Emilia Szczykowska

Title: A Time Ticking Bomb - Case Report Of Penetrating Aortic Ulcer

Abstract No. 103

Penetrating aortic ulcer (PAU) is a rare condition in which irregularity of the aortic wall is caused by an ulceration of an atheromatous plaque. It extends through the intima and into the aortic media. The condition represents one of the causes of potential acute aortic syndrome. The case report presents a patient with cardiovascular risk factors in whom a Doppler ultrasound of the renal arteries followed by CT angiography revealed asymptomatic PAU located in abdominal aorta. AIM OF THE STUDY: The analysis of symptoms, diagnostic pathway and treatment of a patient with PAU. The primary objective is to emphasize the importance of watchfulness and extended vascular diagnostics in patients with significant risk factors of artery disease, like hypertension, chronic renal disease and atherosclerosis which prevents the patient from severe complications. MATERIAL AND METHODS: An 84year-old female patient arrived at the Emergency Room due to headache, dizziness, tinnitus, and blood pressure over 214/74 mmHg. Patient had a long-lasting history of hypertension and peripheral artery disease. She was admitted to the Department of Internal Medicine and Hypertension. Laboratory tests showed normocytic anemia (11.4 g/dL) and elevated creatinine levels (1.26 mg/dL, eGFR 43.1 mL/min). Carotid artery ultrasound showed significant stenosis (70–90%) of the left internal carotid artery. Given the history of peripheral artery disease, hypertension, and high creatinine levels, further evaluation of the renal arteries was conducted. Doppler ultrasound revealed left renal artery stenosis and suspicion of PAU. Subsequent angio-CT revealed an aneurysmal dilation up to 27 mm, beginning 58 mm above the aortic bifurcation. At this level, contrast enhancement extended toward the aortic protrusion, suggesting an atherosclerotic plaque ulcer or a partially coagulated pseudoaneurysm. Antihypertensive and lipid-lowering therapy was adjusted, and a vascular surgeon was consulted. The patient was then referred to the Vascular Surgery Outpatient Clinic. CONCLUSIONS: In elderly patients encumbered

with cardiovascular risk factors, it is essential to take into account the possibility of aortic disease which could be overlooked. This case highlights how clinical vigilance and a thorough diagnostic approach can uncover unexpected conditions, enabling timely intervention and preventing severe complications.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors:

Mateusz Malinowski, Aleksandra Lewczak

Title: Refeeding Syndrome in a Patient with Liver Cirrhosis – Challenges and Efficacy of Clinical Nutrition in the Context of Multimorbidity

Abstract No. 104

Refeeding syndrome (RFS) is a severe metabolic disturbance that occurs in patients suffering from profound malnutrition, particularly against the backdrop of chronic illnesses. A pivotal component of its management is the gradual initiation of clinical nutrition with concurrent monitoring of blood electrolyte levels. In the case described, the complexity of the patient's condition necessitated a coordinated therapeutic strategy that combined parenteral nutrition with intensive polypharmacotherapy.Case Report:An 89-year-old female patient, with a medical history including liver cirrhosis of HCV etiology and episodes of paroxysmal atrial fibrillation, was admitted presenting with signs indicative of upper gastrointestinal bleeding. Clinical evaluation revealed severe malnutrition alongside electrolyte imbalances. A comprehensive treatment regimen was initiated, comprising parenteral nutrition (administered from June 9 to June 27, 2023) with an initial gradual increase in caloric intake, and supplementation with thiamine, magnesium, calcium, potassium, and phosphates to mitigate the risk of developing RFS. Concurrently, an intensive polypharmacotherapy was implemented, including antibiotics, cardiologic agents, diuretics, as well as antipsychotic and antiepileptic medications. Despite these measures, manifestations of refeeding syndrome emerged however, they abated following the continuation of the applied treatment protocol. The patient required regular monitoring of electrolyte concentrations and subsequent adjustments in pharmacotherapy, especially considering the impairments in renal and hepatic functions. Throughout hospitalization, improvements were observed—ascites diminished, and biochemical parameters stabilized. Through effective interdisciplinary collaboration, the treatment was successfully managed, minimizing the risk of complications. Furthermore, the introduction of physical rehabilitation contributed to enhanced physical performance and an overall improvement in the patient's quality of life postdischarge.Conclusion:This case highlights the imperative of a comprehensive approach that integrates precise clinical nutrition with optimized polypharmacotherapy. Careful monitoring of electrolyte levels and individualized treatment facilitated effective

management of RFS and the patient's clinical improvement, ultimately contributing to a reduced duration of hospitalization.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors:

Franciszek Przybylski, Izabela Majewska

Title: Pulmonary fibrosis in generalized systemic scleroderma - diagnostic and therapeutic challenges

Abstract No. 105

Systemic scleroderma (SSc) is a chronic autoimmune disease characterised by tissue fibrosis, vascular damage and immune dysfunction. The generalised form (dcSSc) often leads to internal organ involvement, and interstitial lung disease (ILD) is its most common and serious complication, accounting for the majority of deaths associated with SSc. The diagnosis of ILD is based on high-resolution computed tomography (HRCT) and pulmonary function tests (PFTs), which show features of restrictive respiratory failure. Treatment includes immunosuppressive and antifibrotic drugs to slow disease progression. This case report concerns a patient with dcSSc and advanced pulmonary fibrosis, demonstrating the diagnostic and therapeutic challenges.Case report:A 55-year-old female patient with a diagnosis of generalised systemic scleroderma, hypertension, hyperlipidaemia and nontoxic thyroid goiter was admitted to the 2nd Clinic of Lung Diseases, Lung Cancer and Internal Medicine, USK Bialystok for diagnosis, assessment of interstitial lung disease activity. On admission, the patient was in average general condition, SpO2 on self-breath 70%, WHO = 2, markedly impaired, worsening exercise tolerance and cough with expectoration of white sputum. Pulmonary function tests showed mild impairment of FVC and FEV1, with significant progression from the previous test performed 5 months early, and severe impairment of DLCO. UKG showed mild mitral and tricuspid regurgitation, moderate tricuspid regurgitation and a high probability of pulmonary hypertension. HRCT showed features of bilateral advanced pulmonary fibrosis: a matte glass image, in the lower peripheral parts, thickening of the interlobular septa with dilatation and thickening of the bronchial walls, increased honeycomb lesions, and a nodular thickening with a diameter of 9mm was present in segment 3P (anterior pinnacle). Dilatation of the pulmonary trunk and pulmonary arteries was also noted.During hospitalisation, the current treatment, i.e. mycophenolate mofetil, was continued, and after a cardiological consultation, it was decided to reduce the dose of sildenafil (from 75 to 50mg per day) due to significant

distention and severe impairment of DLCO. Due to the progression of the disease and her general condition, the decision was made to start qualifying the patient for lung transplantation early, before the critical deterioration of her condition.Conclusions:Progressive pulmonary fibrosis in dcSSc is a contributor to respiratory failure and has a high mortality rate, highlighting the need for early intervention. Early qualification for lung transplantation can significantly improve prognosis, especially in patients with rapid disease progression despite treatment. This case highlights the need for close monitoring of lung function and multidisciplinary collaboration to ensure optimal care and timely referral for transplantation.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors:

Paweł Kosiorek

Title: Isolated IgG4 deficiency: A case report

Abstract No. 106

Isolated IgG4 deficiency is a rare condition, in most cases it coexists with thedeficiency of other immunoglobulin subclasses. The clinical significance of this defectis not fully known. The suggestion exists that one of the roles for IgG4 can beprotection from autoimmunity, and perhaps also from recurrent bacterial and viralinfections. Hereby, we report a case of an adult patient who was diagnosed withisolated IgG4 deficiency. Importantly, at the time of admission the clinical imagepresented primarily- autoimmune disorders with consecutive exaggeration ofinfectious manifestation following intensive immunosupressive therapy.A 33year-old female patient with a significant history of autoimmune disorders andrecurrent infections was admitted to the clinic. She reported symmetrical arthralgia forseven years and elevated inflammation parameters. Genetic testing indicatedvariants associated with psoriasis and psoriatic arthritis (TNF 308 G>A, HLA-C06).Differential diagnoses at the time included Still's disease, spondyloarthropathy, andendocrine-related joint manifestations. Additionally, the patient experienced recurrentmild-level infections in the past, including frequent sinusitis and a history of herpeszoster. Initially, the diagnosis was unclassified arthritis, suggesting seronegativerheumatoid arthritis. The primary treatment was prednisone (maximally 20mg perday), then combined with methotrexate and temporarily with cyclosporine andsulfasalazine. After three years of glucocorticoid therapy, the patient gained about40kg and developed insulin resistance requiring metformin. As the inflammationparameters were still elevated, in total, five monoclonal antibodies were administeredwith little curative effect, including upadacitinib, adalimumab, secukinumab,ixekizumab and guselkumab. In the course of immunosupressive treatment, thepatient developed severe bacterial pneumonia and required hospitalisation. Duringthe immune diagnostics in our Department, the primary observation was the profoundisolated deficiency od IgG4 immunoglobulin subclass. Due to this finding, amodification of the therapy was introduced, i.e. the intravenous injections ofimmunoglobulins were applied every 4 weeks and the doses of immunosupressantswere gradually reduced. The patient

experienced gradual improvement of her clinicalstatus.This case highlights the challenges in managing autoimmune disorders in thepresence of IgG4 deficiency and underscores the potential role of IVIG in modulatingimmune dysregulation.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Eliza Viktorija Sinkevič

Title: Symptoms Of Intervertebral Disc Herniation As A Manifestation Of Rheumatic Polymyalgia

Abstract No. 107

Rheumatic polymyalgia (RP) is an inflammatory disease that usually affects people over 50 years of age. Symptoms include muscle pain and stiffness, especially in the morning, the pain may be symmetrical. The neck, shoulder and hip areas are most commonly affected. Other symptoms include fatigue, general weakness and fever. Diagnosis is based on clinical symptoms and elevated inflammatory markers such as C-reactive protein (CRP) or erythrocyte sedimentation rate (ESR). There are no specific diagnostic markers to confirm the disease. Glucocorticoids are ussally used for treatment of the disease.Aim of the study.Materials and methods.A 80 year old woman complained of bilateral leg pain spreading from her waist, numbness in both feet and general weakness. Two weeks ago, the patient had been treated with analgesics, symptoms were relieved, but this time the same treatment was inefective. Upon detailed examination, a painfull lumbosacral area around the tailbone was observed and hypesthesia was present in both legs. Jordan's symptom was negative on both sides, the abdomen was soft and painless on palpation. Laboratory tests showed elevated CRP (107 mg/l), normokalaemia and normonatremia. No pathological findings were identified during renal, urinary bladder and upper abdominal area ultrasound test. X-ray of the spine and hip areas showed no fractures but intervertebral osteochondrosis and signs of spondylosis were observed. Suspecting spondylodiscitis or spinal canal stenosis, a magnetic resonance imaging (MRI) scan of the spine was performed but no pathologies were found. The patient was treated with analgesics, but after a few days pain and weakness increased in the arms and legs. An MRI of the brain showed no acute vascular lesions. In the absence of a definite cause of the disease, laboratory tests were repeated: an increase in CRB (40 mg/l), ESR (43 mm/h) and rheumatoid factor (136 kU/l) was observed. No antibodies to confirm Lyme disease were found. On the basis of her history, clinical and laboratory findings, the patient was diagnosed with rheumatic polymyalgia. Medrol was prescribed for treatment.Conclusions. Due to muscle pain, loss of strength and numbness in the arms and legs, rheumatic polymyalgia can be misinterpreted

as an intervertebral disc herniation or spinal canal stenosis, a thorough testing should be performed to prevent misinterpretation and delayed treatment.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Joanna Najbar

Title: Exploring the Diagnostic Complexity of Neurosarcoidosis: A Case of Recurrent Sixth Cranial Nerve Palsy

Abstract No. 108

Sarcoidosis mainly affects the lungs, mediastinal lymph nodes, skin, and eyes, with the nervous system being less commonly involved, affecting around 5–10% of cases. Due to its wide-ranging clinical presentations, neurosarcoidosis can impact various parts of the nervous system, resulting in a broad range of neurological impairments. Central nervous system involvement is seen in 86% of neurosarcoidosis cases. We present a rare case of a 61yearold male patient with challanging diagnostic pathway leading to the diagnosis of sarcoidosis.Our patient presented with binocular horizontal diplopia caused by complete right sixth cranial nerve palsy, which spontaneously resolved within three months. However, the symptoms recurred six months later. Neurological and ophthalmological evaluations showed no other abnormalities. Comprehensive laboratory tests, including blood analysis and cerebrospinal fluid examination, revealed no significant findings. MRI detected a small incidental lesion in the left lateral ventricle, which remained unchanged on subsequent imaging. Thoracic CT scans revealed mediastinal and hilar lymphadenopathy, along with nodular disseminations in the lung parenchyma - classical thoracic manifestations of sarcoidosis. Based on these findings, the patient was diagnosed with presumed neurosarcoidosis and started on corticosteroid therapy, leading to a complete resolution of neurological symptoms within four weeks.The varied presentation of sarcoidosis, especially when neurological symptoms appear first, presents a major diagnostic challenge. Studies show that postmortem analysis reveals subclinical neurological involvement in 25% of sarcoidosis cases, suggesting that the condition is often underdiagnosed. Diagnostic challenges mean histopathological confirmation is achieved in only 21% of cases. Diagnosing neurosarcoidosis requires a thorough assessment combining clinical symptoms, neuroimaging, cerebrospinal fluid analysis, and histopathological evidence of noncaseating granulomas. In cases of recurrent cranial neuropathies, it is important to consider differential diagnoses such as multiple sclerosis, neuroborreliosis, and increased intracranial pressure.

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Agnieszka Piróg

Title: Not Just Another Bleed: Uncovering the Source of Persistent Postoperative Anemia

Abstract No. 109

Acquired haemophilia A (AHA) is a rare autoimmune bleeding disorder caused by autoantibodies against coagulation factor VIII, with an incidence of 1.5 cases per million annually. It typically affects women of reproductive age and elderly over 60, often linked to autoimmune diseases, malignancies, or idiopathic causes. AHA presents with varying bleeding severity, complicating early diagnosis, especially in postoperative patients with no history of coagulation disorders.Case ReportA 70-year-old male underwent pancreaticoduodenectomy for adenocarcinoma. On admission, he was in good general condition with no family history of coagulation disorders.Postoperatively, the patient developed significant anemia (Hgb 6.7 g/dL). Despite red blood cell (RBC) transfusions, abdominal computed tomography (CT), and gastroscopy, the bleeding persisted, necessitating relaparotomy. After surgery, he was transferred to the intensive care unit (ICU) due to circulatory failure and infection.In the ICU, persistent anemia (Hgb 6.2 g/dL) and ongoing hemorrhage (blood-colored drainage fluid, soaked surgical dressings) were noted despite multiple transfusions. Prolonged activated partial thrombolastin time (aPTT) of 52 sec suggested coagulopathy. A comprehensive coagulation workup was performed, including an aPTT mixing test, assays for von Willebrand factor (vWF) and coagulation factors II, V, VII,
VIII, IX, X, XI, and XII.The results showed:• Factor VIII activity: 15.3% (normal range: 50–150%)• Factor VIII inhibitor titer: 7 BU/mL• Positive aPTT mixing test, confirming the presence of an acquired factor VIII inhibitorAHA was diagnosed. Targeted treatment with recombinant factor VIIa (90 mcg/kg every 3 h) and corticosteroids was initiated, while anticoagulation therapy was discontinued. Coagulation parameters improved, with aPTT decreasing to 36.1 sec, factor VIII activity normalizing (99.6%), and inhibitor levels dropping (0.4 BU/mL). The patient stabilized with no further bleeding.Conclusions1. AHA is a rare, potentially lifethreatening condition, often difficult to diagnose postoperatively in patients without prior bleeding disorders.2. Persistent hemorrhage and multiple

transfusions, should raise suspicion for acquired coagulopathy.3. Early recognition and comprehensive coagulation testing, including factor assays and inhibitor screening, are critical for timely diagnosis and appropriate management.This case highlights the importance of awareness of AHA, a rare but serious coagulation disorder.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Izabela Majewska, Franciszek Przybylski

Title: Technological breakthrough in the fight against lung cancer: faster and safer diagnosis

Abstract No. 110

Lung cancer is the most common malignant tumor in the world and the most common cause of cancer deaths. The main culprit is tobacco smoking, which accounts for 85% of all cases. Early diagnosis is crucial to improving patient prognosis. However, this disease is often detected at an advanced stage, due to non-specific symptoms and the lack of effective and widespread screening tests. In recent years, there has been a dynamic development of imaging techniques, molecular biomarkers and artificial intelligence, which has improved diagnostics and differentiation.Case reportThe medical case concerns a 47-year-old man, admitted to the 2nd Clinic of Lung Diseases, Lung Cancer and Internal Medicine for invasive diagnostics of a right lung tumor detected on a control chest X-Ray which was the part of a periodic check-up at the Occupational Medicine Clinic. The man had a history of 30 packyears, diabetes type 2 and occupational exposure to silica and asbestos. In the physical examination – lung crackles in the apical and the interscapular regions. The patient reported a deterioration in exercise tolerance. CT described a nodule with irregular outlines, measuring 19x14x19 mm in segment 2 of the right lung and atelectatic-scarring densification at the base of segment 3, in segment 4, connecting with the mediastinal pleura. The patient was qualified for bronchoscopy under general anesthesia with mechanical ventilation using bronchonavigation and an endoradial probe. The examination revealed a tumor of the bronchus 2 of the right lung. The location of the instruments was confirmed using fluoroscopy and cone beam tomography. 4 cryobioptates were taken for histopathological examination in order to diagnose the lesion differentially. The patient was discharged home without complications, in a good general condition. As a result of the histopathological examination, a malignant lesion was excluded and a benign lesion of the nature of a follicular adenoma was found.ConclusionsIn recent years, lung cancer diagnostics have developed significantly. Thanks to this, many patients can avoid complications associated with more radical diagnostic methods, such as transthoracic biopsy or even surgery. Modern lung cancer diagnosticmethods are characterized by a lower risk of pneumothorax, infection or bleeding. This case is a perfect example of the fact

that technological progress in medicine allows for maximizing the effectiveness of diagnostics while minimizing unnecessary risk.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Aleksandra Lewczak, Mateusz Malinowski

Title: The Role of Advanced Exercise Testing in the Preoperative Assessment of a Patient with Chest Wall Deformity - Pectus Excavatum

Abstract No. 111

Pectus excavatum, characterized by a sunken sternum, is a congenital chest wall deformity that can significantly impact cardiopulmonary function, particularly in severe cases. A thorough preoperative evaluation is crucial for determining the extent of functional impairment and guiding the appropriate surgical intervention. Advanced cardiopulmonary exercise testing (CPET) provides valuable insights into the physiological consequences of this deformity, especially in patients with decreased exercise tolerance. This report highlights the utility of advanced exercise testing in the preoperative assessment of a patient with pectus excavatum.Case ReportA 19-year-old male, previously physically active, presented with a recent decline in exercise tolerance, reporting an inability to perform routine physical activities. He was admitted for a preoperative evaluation in preparation for corrective surgery for pectus excavatum, following a consultation with a thoracic surgeon. Outpatient investigations revealed:Chest CT: Severe pectus excavatum with a reduced anteroposterior diameter (60 mm at the deepest point) and mild compression of the heart. A small pericardial effusion (13 mm) was noted.Pulmonary function tests: No signs of bronchial obstruction (FEV1 88%, FVC 95%, FEV1/FVC 78%). The residual volume (RV) was reduced (57%), with a normal diffusion capacity for carbon monoxide (DLCO = 97%).Echocardiography: Preserved systolic function of the left ventricle (EF 52%) with impaired diastolic function. Pulmonary hypertension was considered unlikely.ECG: Incomplete right bundle branch block (RBBB).Cardiopulmonary exercise test (CPET): Moderate exercise intolerance, with a low oxygen pulse indicating decreased stroke volume during exertion. RBBB was also present on the stress ECG but without ischemic changes.Cardiac output monitoring (Innocor IGR): Normal cardiac output (4.9 L/min), a right ventricular stroke volume of 70 mL, and no significant intrapulmonary shunt.Upon admission, the patient was asymptomatic with normal vital signs (BP 110/79 mmHg, HR 77/min). He was discharged in good condition, with recommendations for followup.ConclusionsThis case underscores the importance of advanced exercise testing,

such as CPET, alongside non-invasive cardiopulmonary evaluation in the precise assessment of patients with chest wall deformities before planned surgical interventions. Even in the absence of significant resting symptoms, exercise testing revealed subtle hemodynamic disturbances and reduced exercise tolerance, which could be attributed to heart compression. An interdisciplinary approach allowed for the optimization of the patient's surgical qualification process while minimizing procedural risks through an accurate determination of the cardiopulmonary system's functional status.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Monika Kalicka, Martyna Biadasiewicz

Title: Unraveling the Layers: Tuberous Sclerosis Disguised as LAM and AML

Abstract No. 112

Lymphangioleiomyomatosis (LAM) is a rare genetic disease characterized by the abnormal growth of smooth muscle-like cells around the bronchi, blood vessels, and lymphatic vessels in the lungs, leading to the destruction of their structure. It can occur spontaneously or as part of tuberous sclerosis.Case report:A 63-year-old female patient was admitted to the internal medicine department for diagnostics concerning a systemic connective tissue disease. The patient had a history of autoimmune thyroiditis, chronic kidney disease (G3), angiomyolipomas (AML) of the kidneys, hypertension, and recurrent bronchitis. Upon admission, the patient complained of radiating pain in the chest, worsening with inhalation, as well as discomfort in the subcostal area, sternum, and thoracic spine (T10-12). A spontaneous pneumothorax was considered as a possible diagnosis. The symptoms were accompanied by dyspnea, fever, chronic serous rhinorrhea, and dizziness. The patient also had recurrent joint pain without swelling or morning stiffness. In the past, the patient had observed skin changes such as redness and vesicles, followed by a confluent rash on the thighs and abdomen. Physical examination revealed discolorations on the anterior surface of the lower legs and white patches on the inner side of the right arm and near the left temple, where gray hairs were growing. Laboratory tests showed positive pANCA antibodies. HRCT of the chest revealed multiple round cysts of similar size, characteristic of LAM. Due to the coexistence of AML in the kidneys with the described changes in the lungs, the suspicion of tuberous sclerosis was raised. A CT of the paranasal sinuses and part of the brain revealed small calcifications in the lateral wall of the left lateral ventricle. Based on the overall clinical picture and imaging results, the diagnosis of lymphangioleiomyomatosis (LAM) in the course of tuberous sclerosis was made. Radiological diagnostics showed two large lesions (LAM and AML) and suspicion of two small lesions (numerous skin changes and calcifications in the ventricle wall, potentially corresponding to hamartomas), which met the criteria for the diagnosis of tuberous sclerosis (TSC). Sirolimus was introduced for treatment.Conclusions:Despite the initial suspicion of a systemic connective tissue disease

and the presence of nonspecific symptoms, the clinical presentation and radiological diagnostics allowed for the diagnosis of tuberous sclerosis.

Book of Abstracts

Session:

CR4 Internal Medicine III
AULA 2
SAT 26.04.2025 10:00-12:00

Authors: Amir Nour Mohammadi

Title: One does not fit all: Considering genetic diagnosis in a young woman with diabetes mellitus and end-stage renal disease

Abstract No. 113

Chronic kidney disease (CKD) is a significant public health concern, marked by the progressive and irreversible loss of kidney function. End-stage renal disease (ESRD) represents the most severe stage, requiring renal replacement therapy. According to the KDIGO 2024 guidelines, diabetes mellitus is a leading cause of CKD globally, contributing to rising ESRD incidence. While diabetes and arterial hypertension are common CKD etiologies, ESRD in young adults necessitates a broader differential, including less prevalent genetic conditions. Alport's syndrome and nail-patella syndrome, caused by mutations in COL4 and LMX1B genes, respectively, are examples.Case report: A 30-year-old female presented with nephrotic syndrome. Her medical history included LADA, hypothyroidism, arterial hypertension, autism spectrum disorder, and mild mitral valve regurgitation. Laboratory and radiological investigations confirmed stage 5 CKD. Due to advanced kidney damage, a biopsy was not performed. Following CKD identification, a comprehensive workup, including blood counts, kidney function, and immunological panels, was initiated. Genetic testing revealed mutations in COL4A3 and LMX1B genes. The patient is now awaiting preemptive kidney transplantation.Conclusions: Although diabetes and hypertension are frequent CKD contributors, as highlighted by the KDIGO 2024 guidelines, the early onset of ESRD and nephrotic syndrome suggest other factors. Mutations of genes related to glomerular function, while less common, should be considered in young adults with hematuria, proteinuria, and progressive kidney dysfunction. The often-insidious nature of genetic syndromes can lead to delayed diagnoses. A broad differential diagnosis is crucial in young adults with ESRD for timely, accurate management

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Julia Tarnowska

Title: An Acute Type B Aortic Dissection Associated With Pregnancy And Hypertension: Case Study

Abstract No. 114

Type B aortic dissection after labor can be life-threatenin. This can result in the occlusion of branches of the aorta, causing ischemia in the corresponding organs and, ultimately, death. Severe hypertension is a main risk factor. Other factors include connective tissue disorders, advanced maternal age, and cardiovascular conditions. However, the patient had no such history, underscoring hypertension's role. This report highlights early intervention and special monitoring of pregnanat women.Case Report: A 28-years old women with a history of severe hypertension was admitted to the obstetrics hospital. Two attempts at labor induction were unsuccessful. A decision was made to proceed with a cesarean section. . Csection was performed without complications. Due to the patient's deteriorating condition, two laparotomies were performed, one at the initial hospital and another after transfer. Postoperatively, she required intensive care monitoring. Based on imaging studies, a diagnosis of type B thoracoabdominal aortic dissection complicated by malperfusion was established. Endovascular aortic repair involved placement of an aortic stent graft under imaging guidance. A left inguinal incision was made, and a 20Fr sheath and a 0.035 wire guide were introduced into the left common femoral artery. Angiography was performed however, certainty regarding the presence in the true aortic canal was not obtained. Subsequently, a right axillary puncture was performed, confirming the presence in the true cana. Marked LSA and dissection onset. Introduced a 0.035-inch wire guide to facilitate the introduction of the Zenith TX2 Dissection Endovascular Graft with Pro Form Z-Track Plus Introduction System. Verified accurate placement and proceeded with deployment. Afterward, the patient underwent 2 more surgeries: duodenum resection and creation of a gastro-descending colon anastomosis. Upon hospital admission, the patient was in a very serious general condition, however after 2 months of treatment and improvement she was discharged. She was placed under the supervision of general and vascular surgeons, cardiologists, internal medicine specialists, physiotherapists, dietitians and psychologists . The patient did not have Marfan syndrome or EhlersDanlos syndrome.Summary: A

postpartum patient with hypertension and obesity developed bowel ischemia due to Type B aortic dissection. Immediate endovascular repair was performed, highlighting the importance of early diagnosis and rapid intervention.Conclusion: This report has demonstrated that hypertension during pregnancy, combined with unsuccessful attempts at delivery, may be a significant risk factor for aortic dissection. Effective diagnosis and management of these patients is challenging and requires multidisciplinary care, including the use of CT with contrast as soon as possible due to its higher benefits, and the immediate endovascular approach as the most safest method of treating postpartum aor

Book of Abstracts

Session:

CR5 Surgery I
AULA 3

SAT 26.04.2025 10:00-12:00

Authors: Yohann Pinto, Melvin Varghese, Yash Rajesh

Title: A Rare Case of Multiple Diverticula Discovered During Bariatric Procedure

Abstract No. 115

Jejunal diverticulosis is a rare condition, affecting less than 2% of the population, with a slight male predominance and typically diagnosed in adults, most commonly in the sixth and seventh decades of life. Unlike colonic diverticulosis, its exact cause remains unclear but is linked to intestinal wall weakness and abnormal peristalsis. Risk factors include age, connective tissue disorders, and chronic bowel dysmotility, while the role of obesity remains uncertain.Though often asymptomatic, jejunal diverticula can lead to complications such as bacterial overgrowth, malabsorption, perforation, bleeding, and obstruction. In bariatric surgery, their presence increases the risk of anastomotic failure, bleeding, and reoperation, requiring careful surgical decision-making.CASE REPORTA 48year-old female, who underwent sleeve gastrectomy eight years ago, was scheduled for a Roux-en-Y gastric bypass (RYGB) due to severe symptoms of gastroesophageal reflux disease and an insufficient response to the initial procedure in weight loss. At the time of sleeve gastrectomy, she weighed 125 kg (BMI of 40kg/m2), with a recorded minimal weight of 95 kg postoperatively. At the time of the planned RYGB, her weight was 97 kg (BMI 32kg/m2).During the procedure, multiple jejunal diverticula were observed. Due to the location of the diverticula within the first 200 cm of the jejunum, at potential anastomosis sites, the procedure was abandoned. A cruroplasty was performed due CONCLUSIONRYGB was not performed due to the possible risk of complications in this case. The presence of multiple jejunal diverticula indicated a weakened intestinal wall, making anastomosis potentially hazardous. Additionally, jejunal diverticula can lead to complications such as bleeding, intussusception, and strangulation, significantly increasing the risk of reoperation after RYGB. Therefore, it is important to first inspect the peritoneal cavity before taking any irreversible steps during surgery to rule out potential contraindications to the procedure.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Martyna Tamulionytė, Marius Bložė

Title: Bowel Obstruction due to adhesions. Necrosis of the Small Intestine. Case Report

Abstract No. 117

Abdominal cavity adhesions are fibrous scar tissue bands that cause organs to stick together or to the abdominal wall. They commonly develop after surgery, as organs are temporarily shifted from their normal positions. Adhesions are rare in patients without prior abdominal surgery or trauma but can form in cases of peritonitis. Most adhesions do not cause health problems, but in some cases, they can block the intestines partially or completely. Rarely, they cause strangulation by cutting off blood supply to the bowel, leading to necrosis. Ileus, a disruption in intestinal propulsive ability, can result from adhesions. This condition requires immediate surgery.CASE REPORT: A 68-year-old male was brought to the emergency department with abdominal rumbling, vomiting, and diarrhea. He had fallen on ice a week earlier, hitting his head without losing consciousness. The patient had Raynaud's disease but no other chronic illnesses or regular medications. Paramedics detected sinus bradycardia and administered Atropine 0.5 ml IV and NaCl 0.9% 500 ml IV.In the emergency department, the abdomen was moderately distended and painful on the left side without rigidity or peritoneal irritation. Vital signs were: blood pressure 156/85 mmHg, pulse 56 bpm, respiratory rate 18 breaths/min, and oxygen saturation 97%. Pain was rated 6/10. Peristalsis was audible with localized hyperactivity. Blood tests showed potassium 3.3 mmol/L, glucose
7.78 mmol/L, and C-reactive protein 0.9 mg/L, with normal lactate and procalcitonin levels. Ultrasound detected slight urolithiasis in the gallbladder. Instrumental tests showed a hyperdense, edematous small intestine loop under the liver, suggesting wall edema.Despite the absence of surgery, trauma, or infection history, the patient's condition deteriorated, with increased abdominal girth, muscle rigidity, and pain. An emergency laparotomy was performed, revealing 1000 ml of hemorrhagic fluid in the peritoneal cavity. A string-like adhesion at the aortic bifurcation had twisted the small intestine. Numerous "violin string" adhesions were found, and adhesiolysis was performed. A 40 cm segment with necrobiosis,

hematomas, and deserosations was resected and sent for pathological examination, which confirmed hemorrhagic necrosis.CONCLUSIONS: Adhesions are rare without prior abdominal surgery or trauma. Twisting around adhesions can cause strangulation and bowel necrosis, potentially leading to ileus. This case highlights that laboratory tests may not always indicate ileus, making clinical and instrumental tests critical for diagnosis. Many adhesive disease cases remain undiagnosed due to the lack of characteristic laboratory features and imaging visibility, posing a diagnostic challenge.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Melvin Varghese, Yohann Pinto, Yash Rajesh

Title: A Rare Case of Ascariasis In the Gallbladder and The Bile Ducts

Abstract No. 118

Ascariasis is a helminthic infection of humans caused by the nematode Ascaris lumbricoides. A. lumbricoides is a cosmopolitan parasite and the most prevalent and largest of the human helminths. Biliary ascariasis is a rare manifestation of Ascaris lumbricoides infection, primarily affecting individuals in endemic regions such as South Asia, Latin America, and parts of Africa. Ascariasis is one of the most common helminthic infections worldwide, with an estimated 800 million to 1.2 billion people infected. However, hepatobiliary involvement occurs in only a small percentage of cases, typically when adult worms migrate from the intestine into the bile ducts or gallbladder.The condition is more frequently reported in females than males, likely due to hormonal influences on bile duct motility and anatomical differences that may facilitate worm migration. Infection occurs through the fecal-oral route, with individuals ingesting embryonated eggs from contaminated food, water, or soil. Once inside the body, larvae hatch in the intestines, undergo pulmonary migration, and mature into adult worms, which may then invade the biliary system.While biliary ascariasis can lead to complications such as cholangitis, cholecystitis, and obstructive jaundice, early diagnosis and treatment can prevent severe outcome.Case ReportA 35-year-old male presented with cholestatic jaundice and dyspeptic symptoms after returning from Madeira, where he consumed food of unclear origin. During hospitalization, clinical signs of cholestasis persisted, including abdominal pain and elevated bilirubin levels. Hepatitis B and C infections were ruled out. Imaging studies, including ultrasound and MRCP, revealed suspicion of biliary ascariasis. The patient was treated with antiparasitic medication (Albendazole), However, due to the increasing bilirubin levels and pain symptoms he was qualified for laparoscopic cholecystectomy.Intraoperatively, no ascaris was found in the gallbladder. Postoperative MRCP confirmed clearance of parasites from the bile ducts, and the patient had an uneventful recovery with declining bilirubin levels. He was discharged in stable condition for further outpatient follow-up.ConclusionThis case highlights the importance of considering biliary ascariasis as a differential diagnosis in patients presenting with cholestatic jaundice, particularly those with a history of travel. Early recognition through imaging studies such as ultrasound and

MRCP, along with timely administration of antiparasitic therapy, can lead to successful management. While medical treatment is often effective, persistent symptoms may necessitate surgical intervention.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Mateusz Malinowski, Aleksandra Lewczak

Title: My Patient's Stomach: A Black Hole of Ingested Oddities

Abstract No. 119

The deliberate introduction of foreign bodies into the body either by swallowing or selfinsertion represents a rare yet clinically significant phenomenon, particularly among patients with psychiatric disorders and intellectual disabilities. Such cases require an interdisciplinary approach that integrates surgery, gastroenterology, neurology, endocrinology, and psychiatry.Case Report:The presented case involves a 35-year-old male with a history of mild intellectual disability, Recklinghausen's disease, epilepsy, and hypothyroidism, whose recurrent episodes of self-harm have necessitated numerous medical interventions. Over the past 10 years, the patient has repeatedly engaged in both the ingestion and subdermal insertion of various foreign objects. Documented items include batteries, needles, glass beads, chains, nails, razor heads, and glass marbles. He has been hospitalized multiple times for the management of these incidents. Diagnostic imaging comprising gastroscopy, computed tomography, and X-ray proved crucial in accurately localizing the objects. These examinations enabled prompt interventions ranging from endoscopic retrieval procedures to, in one instance, a laparotomy performed due to a suspected intestinal perforation. Additionally, the patient has undergone several surgical procedures to remove embedded objects from the subcutaneous tissue of his forearms. Despite comprehensive behavioural therapy and pharmacological management, his selfinjurious behaviour persisted, prompting concerns regarding the adequacy of posthospitalization imaging surveillance and the overall efficacy of the interventions. Ongoing monitoring and psychiatric support remain essential to manage his complex clinical profile.Conclusions:Effective management of such cases requires close collaboration among surgeons, gastroenterologists, neurologists, endocrinologists, and psychiatrists. Regular imaging (CT, X-ray, and gastroscopy) is key for the early detection of foreign bodies and the prevention of complications. Continuous monitoring and psychological therapy are imperative to reduce the frequency of self-harming episodes. This case underscores the

need for an individualized, interdisciplinary approach and vigilant post-intervention surveillance in patients with complex self-injurious behaviours.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Kinga Chomicka, Wiktoria Jurczykowska, Zofia Stankiewicz, Marta Berczyńska

Title: Challenges in Auricular Replantation: A Case of Traumatic Amputation Following Severe Polytrauma

Abstract No. 120

Traumatic auricular amputation is an uncommon but severe consequence of highimpact injuries. The success of replantation depends on multiple factors, including tissue viability and vascular integrity. Case Presentation: 50-year-old male who sustained severe polytrauma after being crushed by a dump truck. His injuries included complete amputation of the right auricle, a shoulder girdle injury, a comminuted fracture of the left scapula, rib fractures, and fractures of the right transverse processes of C7 and Th1. Despite the auricular amputation, the patient retained normal auditory function. An attempt at microsurgical replantation was undertaken however, it was unsuccessful due to localized tissue necrosis. Conclusion: Auricular replantation following traumatic amputation presents a significant surgical challenge, particularly in the context of extensive soft tissue injury. Early intervention and meticulous microsurgical techniques are critical to improving outcomes, yet tissue necrosis remains a major complication. Notably, despite the loss of the external ear, the patient preserved functional hearing, highlighting the resilience of auditory mechanisms in cases of auricular trauma.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Piotr Panek

Title: Posttraumatic lobotomy – a penetrating brain trauma caused by scooter handle

Abstract No. 121

Penetrating brain traumas (PBT) are rare with incidence of 0.4% of all brain injuries. They are usually associated with a poor prognosis and a high risk of mortality, up to 98.5%, in cases with an initial GCS of 3-5. The following case report presents patient with PBT caused by a fall on the electric scooter. CASE REPORT A 76-year-old unconscious intubated but stable patient was brought to the Emergency Department of University Hospital in Krakow due to a foreign body in the left orbit. A computer tomography (CT) scan revealed a scooter handle penetrating the tissues of the left orbit and maxillary sinus, extending to the third ventricle to a depth of 64 mm. The patient was qualified for urgent surgery during which the foreign body was removed, and reconstruction of the anterior cranial fossa was performed. After foreign body removal a post-operative control CT scan showed fractures of the superior, medial, and inferior walls of the orbit, as well as intracranial air in the frontal region. No significant damage to the eyeball, optic nerve, or its bony canal was detected. On the first day after surgery, the patient underwent psychiatric evaluation, which revealed extensive memory deficits and a lack of insight into their own health condition. Approximately three weeks later, tension pneumocephalus was observed, leading to a decision to perform decompression surgery with sinus sealing. Due to deep, persistent memory deficits and severe disinhibition the patient remained in the neurosurgery department of the university hospital in Krakow, where he underwent intensive rehabilitation and multiple psychiatric consultations. After four months of hospitalisation, he was transported to a long-term care facility. Motor and autonomic functions remained intact, with only executive functions impaired, confirming no further, posttraumatic deterioration in the patient's functioning beyond the irreversible deficits caused by the injury. The patient was discharged with
GCS=15, without focal neurological symptoms but with significant psychiatric deficits. CONCLUSION The above patient demonstrates that even in the case of massive penetrating brain injuries, with prompt and professional intervention, excellent treatment outcomes can

be achieved. However, those procedures should be performed in 3rd referential centres by extensively experienced surgeons.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Paweł Szutko, Maria Masłowska, Patrycja Zabrocka, Aleksandra Giba

Title: Persistent CSF Leakage After Suboccipital Decompression in Chiari Malformation Type I: A Case Report

Abstract No. 122

Chiari malformation type I (CM-I) is a rare congenital anomaly of the posterior cranial fossa, characterized by the displacement of cerebellar structures into the spinal canal. This malformation is often associated with syringomyelia, which can lead to progressive neurological symptoms, including sensory disturbances, limb weakness, headaches, and dizziness. The standard treatment for CM-I includes suboccipital decompression surgery, typically involving C1 laminectomy and duraplasty, to restore normal cerebrospinal fluid (CSF) flow and alleviate the associated clinical symptoms. However, postoperative complications, such as CSF leakage, may occur and require additional management.Case Report A 44-year-old patient with a diagnosis of Chiari malformation type I and syringomyelia extending from C2 to Th11 was referred to the neurosurgery department in Białystok. The patient reported numbness in the upper limbs and diminished superficial sensation. Suboccipital decompression with C1 laminectomy and duraplasty using cranial periosteum was performed. Immediate postoperative improvement was observed however, later the patient developed symptomatic CSF leakage from the surgical wound. Despite conservative management and revision surgery with repeated duraplasty, the CSF leakage persisted. Imaging studies revealed ventricular enlargement and recurrent CSF leakage. Additionally, imaging showed enlargement of the syringomyelia. As a result, the decision was made to perform lumbar cerebrospinal fluid (CSF) drainage. Following this procedure, the shunt pressure stabilized at 15 mmH_2O and symptoms of intracranial hypertension resolved. The occipital surgical wound healed properly and the patient was discharged in good neurological condition.Conclusions CSF leakage is one of the most common and challenging complications following suboccipital decompression surgery for Chiari malformation type I. This case underscores the importance of recognizing that standard surgical management may not always be sufficient for addressing complex complications like persistent CSF leakage. A multi-step approach, including wound revision, modifications to

duraplasty and shunt system implantation, may be required for effective management. Early recognition and intervention in such complications are essential for improving the prognosis and quality of life for patients with CM-I.

Book of Abstracts

Authors: Darijus Astrauskas, Roberta Magilevičiūtė, Justė Ramonaitė, Deimantas Masaitis

Title: Surgical management Of A Complex Acetabular Fracture: A Case Report Of Failed Anatomical Reduction

Abstract No. 124

Acetabular fractures in younger adults, often resulting from high-energy trauma, require precise anatomical reduction to prevent complications. Failure to achieve anatomical alignment increases the risk of post-traumatic osteoarthritis and subsequent early total hip arthroplasty (THA). Literature reports a 10–20% overall failure rate for acetabular fracture reduction, commonly due to complex fracture patterns or delayed surgical intervention. Among these failures, 8–15% of patients require THA within 5 years, rising to 20–25% in cases with severe articular comminution or inadequate fixation.Case presentation. A 31yearold male sustained polytrauma from a 4-meter fall. Imaging revealed a comminuted acetabular fracture with significant articular surface destruction, accompanied by ipsilateral pelvic fractures involving the iliac bone, ischium, pubic rami, and sacral mass. Surgical intervention via a Modified Stoppa approach was attempted. Intraoperative bone clamp manipulation caused additional fragmentation of the impacted acetabular floor, further complicating anatomical reduction. Osteosynthesis with plates and screws was performed, but postoperative radiographs confirmed persistent dislocation of the acetabular fragment into the pelvis. Subsequent surgeries addressed sacral and ankle fractures, with good post operative results. Follow-up imaging demonstrated no improvement in acetabular fragment alignment. The patient was prescribed with rehabilitation and 8 weeks of strict nonweightbearing of the affected hip, and scheduled consultations with an orthopaedic traumatologist, imaging tests to monitor the fracture's healing progress.Disucussion. This case highlights challenges in achieving anatomical reduction in complex acetabular fractures with severe comminution. Intraoperative fragmentation can occur in up to 25% of complex fractures and can complicate fixation. The Modified Stoppa approach offers effective anterior access but may poorly address posterior involvement or severe fragmentation. Persistent dislocation post-reduction increases osteoarthritis risk, leading to early THA in 20–25% of cases. Longterm monitoring is key to detect complications early.Conclusions. This case highlights challenges in managing complex acetabular fractures in polytrauma patients, with severe fragmentation involvement and articular damage. Anatomical reduction remains critical but difficult requiring tailored surgical approaches for complex fracture

patterns. Early THA remains a huge risk for the patient. Long-term monitoring is essential to detect osteoarthritis early and guide timely interventions.

Book of Abstracts

Session:

CR5 Surgery I
AULA 3
SAT 26.04.2025 10:00-12:00

Authors: Kamila Koszykowska, Izabela Majewska

Title: “Where does the pleural fluid come from after the removal of a parathyroid adenoma?”

Abstract No. 125

Chylothorax is the accumulation of chyle, a milky fluid typically of lymphatic origin, in the pleural cavity. Most common cause of chylothorax are cancers (approximately 50% of cases), with lymphomas accounting for 60% of these. However, the occurrence of chylothorax following surgical procedures in the neck, including parathyroid adenoma removal, is a very rare postoperative complication (<1%). A potential cause of chylothorax is an accidental injury to large lymphatic vessels or the thoracic duct. Additionally, the risk increases in the case of reoperations in the neck.Case ReportThis clinical case report presents a 28-year-old female patient admitted due to pleural effusion and severe dyspnea on the second postoperative day following the resection of a left inferior parathyroid adenoma at the 1st Department of General and Endocrine Surgery, University Clinical Hospital in Białystok. This was the third attempt at adenoma excision after two unsuccessful procedures in 2023. Upon admission, the patient reported significant back and chest pain (8/10 on the NRS scale) and severe dyspnea, which forced the patient to assume a sitting position. Passive oxygen therapy was administered through a reservoir mask. A bedside chest X-ray revealed a large volume of pleural fluid in the left pleural cavity, compressive atelectasis of the right lung parenchyma, increased interstitial markings, and band-like atelectatic or fibrotic changes in the lower field of the left lung. After the thoracic surgery consultation, bilateral pleural drainage was performed under ultrasound guidance, during which over 2 liters of milkyopalescent fluid (chyle) were evaculated. A passive pig-tail drain was also inserted, with continuous drainage of a turbid white effusion, passing through to a yellowish-white and ultimately a serous appearance. The procedure significantly improved the patient's condition, alleviating pain and dyspnea, enabling spontaneous breathing. On the second day of hospitalization, cannulation of the left femoral vein was inserted with the use of a doublelumen catheter using Seldinger technique. Moreover, parenteral nutrition was applied and somatostatin was administered intravenous in infusion pump. After 12 days of

hospitalization, the patient was discharged with a pleural drain in place and scheduled for follow-up in the surgical outpatient clinic. In addition, a low fat diet was recommended.ConclusionChylothorax is a rare occurrence and the management of this condition depends on the extent of the damage. In mild cases, conservative treatment is employed, which includes limiting the intake of fats in the diet, pleural drainage, and the use of compression dressings. In cases of significant leakage, surgical closure of the damaged lymphatic vessel or thoracic duct is necessary. Although rare, such cases should alert surgeons during neck procedures and postoperative monitoring due to potential serious consequences.

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Jakub Perkowski, Jan Koniuch

Title: Sleep apnea and muscle weakness- common, non-specific symptoms as a manifestation of a rare genetic disorder- Pompe disease. A case report

Abstract No. 126

Pompe disease, or glycogen storage disease type II, is a rare autosomal recessive disorder caused by mutations in the acid alpha-glucosidase (GAA) gene. Deficiency of this enzyme leads to lysosomal glycogen accumulation, predominantly affecting cardiac and skeletal muscle. The severity of symptoms depends on the residual GAA enzyme activity, ranging from mild muscle weakness to chronic respiratory failure with limb and axial muscle involvement.This case report describes a male patient with lateonset Pompe disease who initially presented with sleep apnea, rapidly progressing to respiratory failure and muscle atrophy. His delayed diagnosis, only after severe muscle weakness developed, highlights the challenge of recognizing the disease in its early stages—when treatment is most effective.Case PresentationA 53-year-old male presented to the neurology clinic with progressive muscle weakness, particularly in the hip region, and a history of respiratory failure. Neurological examination revealed proximal muscle weakness in the upper and lower limbs. A waddling gait and a positive Gower's sign were observed, suggesting underlying myopathy.The patient's history revealed a 2014 diagnosis of obstructive sleep apnea (OSA), for which CPAP therapy was recommended. However, he did not adhere to treatment. In 2016, he was hospitalized for acute respiratory failure, requiring mechanical ventilation for three months. Following this event, he began regular CPAP therapy, which stabilized his respiratory condition. Currently, the patient does not require invasive ventilation.Given the clinical presentation, Pompe disease was suspected. A dried blood spot test revealed reduced GAA enzyme activity, and genetic testing confirmed the diagnosis by identifying mutations in the GAA gene. Further assessments showed mild dilatation of the ascending aorta and mildly impaired left ventricular diastolic function. Spirometry suggested restrictive lung disease, with a forced vital capacity (FVC) of 50%.In 2019, the patient started enzyme replacement therapy (ERT) with Myozyme. While this treatment prevented disease progression, it did not result in significant clinical improvement. In 2023, due to the emergence of a new enzyme replacement therapy with

greater efficacy, his treatment was switched to Nexviadyme. Following this change, the patient gained 5 kg, and his laboratory values improved.ConclusionsEarly diagnosis and intervention are critical to optimizing treatment outcomes in Pompe disease. This case highlights the importance of not underestimating early respiratory symptoms, particularly when associated with muscle weakness, shortness of breath, and elevated CK levels.Additionally, this case underscores the need for a multidisciplinary approach in the management of Pompe disease to optimize patients' quality of life. Finally, the introduction of new ERT therapies continues to offer hope for improved clinical outcomes in Pompe disease management.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Stanislaw Czachorowski, Julia Matras, Aleksandra Opęchowska

Title: Nasu-Hakola Disease: A Rare Genetic Cause of Dementia – Case Report

Abstract No. 127

Nasu-Hakola disease (PLOSL) is a rare hereditary neurodegenerative disorder caused by mutations in TREM2 or TYROBP genes. It presents with progressive early-onset dementia and pathological bone fragility. Due to its overlapping clinical features with other neurodegenerative conditions, misdiagnosis is common, particularly in cases initially attributed to Fahr's disease or other leukoencephalopathies.CASE REPORT:We present a case of a 45-year-old female who developed progressive cognitive decline, recurrent epileptic seizures, and multiple pathological fractures. Neuroimaging revealed corticalsubcortical atrophy, extensive leukoencephalopathy, and basal ganglia calcifications, initially leading to a misdiagnosis of Fahr's disease. However, genetic testing identified pathogenic variants in the TREM2 and TYROBP genes, confirming Nasu-Hakola disease as the underlying cause of dementia and skeletal abnormalities.The patient received symptomatic treatment, including antiepileptic therapy, cognitive support, and orthopedic management with calcium and vitamin D supplementation. Despite these interventions, the disease progressed to severe functional impairment and loss of independence.CONCLUSIONS:This case emphasizes the critical role of genetic testing in identifying rare hereditary causes of earlyonset dementia. Nasu-Hakola disease should be considered in patients presenting with both cognitive decline and unexplained bone pathology. Increased awareness and early genetic screening can improve diagnostic accuracy, facilitate targeted management strategies, and enhance patient care in rare neurodegenerative conditions.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Julia Sieczka

Title: The „scalpel" sign as the characteristic image of dorsal thoracic arachnoid web (DAW)

Abstract No. 128

Dorsal arachnoid web (DAW) is a rare condition, which occurs due to the presence of a thickened transverse band of arachnoid tissue over the dorsal aspect of a spinal cord. This phenomenon results in disrupting cerebrospinal fluid (CSF) flow, widening of dorsal arachnoid space, and anterior displacement of the thoracic spinal cord. DAW typically occurs in the upper thoracic spine, with a female predominance and age between 40-70 years old. The etiology of DAW remains uncertain, sometimes considered as another variant of arachnoid cyst. There are no clinical symptoms specific only for DAW. Patients may be asymptomatic or report neuropathic back pain, symptoms of compressive myelopathy or radiculopathy, neuropathic back pain, hyperreflexia and others. The suggestive MRI finding is known as the "scalpel" sign. This refers to the anterior displacement of the thoracic cord and creating a larger dorsal CSF space, ultimately resembling the profile of a surgical scalpel on the sagittal T2-weighted images. On MRI, DAW may be connected with spinal cord signal alteration, which refers to presyrinx or syrinx (syringomyelia), as a result of altered CSF flow. DAW itself is not visible on routine MRI imaging. The differential diagnosis list includes ventral cord herniation and arachnoid cyst. Treatment of symptomatic DAW involves surgical resection with the aim to restore normal CSF flow. For asymptomatic patients, conservative treatment is considered. A 32-year-old male, with no prior medical history of trauma or spinal surgery, presented with paroxysmal, girdle pain in the thoracic spine and lower extremities weakness, was referred to our hospital. The second patient was a 67-year-old female with mild, chronic back pain. In both cases, MRI revealed the characteristic "scalpel" sign on sagittal T2-weighted images of the thoracic spine, without abnormal cord signal. The first patient underwent surgical intervention.

Conclusively, the diagnosis of DAW relies on radiological features. The scalpel sign is a characteristic feature of DAW. Early recognition of the characteristic MRI image is crucial for

radiologists to formulate the accurate diagnosis and to prevent delays in surgical management.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Eva Nausevič, Eliza Viktorija Sinkevič

Title: A Case Of Hemiballism Resembling Unilateral Body Seizures After Ischemic Stroke

Abstract No. 129

Hemibalism is a rare neurological condition characterised by sudden, uncontrollable, largeamplitude movements, usually on one side of the body, which involve arms and legs. Hemiballismus is related to the damage of hypothalamic nucleus resulting in uncontrolled muscle motor activity.Aim of the study.Materials and methodsAn 84-yearold woman developed involuntary movements of the right arm after a previous ischemic stroke, focal seizure was suspected. Recurrent involuntary movements of the right arm with no loss of consciousness and no generalized seizures were observed. Neurological examination revealed sensorimotor aphasia (residual effects of a stroke (REOS)), adequate amplitude of eye movements in all directions, symmetrical pupils, normal photoreaction, no horizontal nystagmus and a slight flattening of the right nasolabial fold. The patient had persistent plegia of the right arm and paresis of the right leg (REOS). Patellar reflexes were diminished on the left, a pathological Babinksi reflex was positive on the right side and no meningeal symptoms were observed. Hypokalaemia or hyponatraemia were not observed in the laboratory tests. Brain computed tomography scan showed no acute cerebrovascular pathology. After recurrent twitching of the right arm, the right leg also began to twitch. Suspecting seizures, carbamazepine was prescribed, but no effect was observed. An encephalogram was not performed due to technical difficulties. Haemiballism was suspected due to repeated episodes of twitching on one side of the body without loss of consciousness. Carbamazepine was replaced with haloperidol, which led to a reduction in involuntary movements. The patient was discharged home after regression of symptoms.Conclusions.Haemibalism is a condition that occurs as a complication of hypothalamic nucleus damage after an ischaemic stroke. Anamnesis, neurological examination and a CT scan remain the main tests to identify the specific structural lesions and the diagnosis of the disease. Treatment includes dopamine receptor antagonists (haloperidol) and can be helpful in differential diagnosis.

Book of Abstracts

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Varouj Vartanian, Patrycja Puciato, Kiara Sequeira

Title: Brain Tumor or Illegal Drugs? Neurological Assessment of Meningioma in an Amphetamine User

Abstract No. 130

Meningiomas are the most common type of primary brain tumor, typically diagnosed around the age of 66, and are more prevalent in females, with a ratio of 3:1 compared to males. However, presented is the case of a 34-year-old male with a history of amphetamine addiction who developed sudden-onset headache and motor aphasia. Initially referred to psychiatry, he was then sent to neurology for a consultation. Despite concerns about illicit drugs being responsible for his neuropsychiatric symptoms, imaging revealed a left ventricular atypical meningioma with skull involvement, necessitating admission to the neurosurgery ward. The purpose of this case is to emphasize the importance of unbiased clinical evaluation without discrimination regarding drug addiction and neuropsychiatric symptoms. This serves as a reminder that all patients deserve thorough investigation and compassionate care to achieve a valid diagnosis, and it should be emphasized that making assumptions about patients can inhibit appropriate treatment.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Deimantė Košytė

Title: Stiff-Person Syndrome with Anti-GAD Antibodies in an Active Individual: A Case Report
Abstract No. 132

Stiff person syndrome (SPS) is a rare autoimmune disorder characterised by progressive muscle stiffness, painful spasms and rigidity. As the condition worsens, respiratory and gastrointestinal disturbances may occur, as well as non-motor symptoms such as depression and anxiety. Elevated levels of antibodies to Glutamic Acid Decarboxylase (GAD) may help to confirm a GAD spectrum disorder, which include SPS, autoimmune epilepsy, cerebellar ataxia, limb encephalitis and eye movement disorder. Case report:A 42-year-old patient was referred to a neurologist due to two years of lower back pain, limited mobility, muscle tension and a feeling of stiffness. Episodic pain spreads to the leg, groin and is provoked by strong emotions, sudden noises, or cold. The symptoms began as a muscle strain in the back during exercise, and the pain gradually worsened, causing him to wake up at night. During the physical examination, there was a significant increase in muscle tone in the legs, more prominent on the right side, which decreased upon flexing the limb. A positive Babinski reflex was observed on the right side. Testing for pinprick sensations in the foot and calf provoked painful tension in the lumbar muscles. An MRI of the spine showed moderate degenerative changes in the bone structures, mild changes in several intervertebral discs and a reduction of the disc with protrusion in the lumbosacral region without signs of stenosis. A follow-up brain MRI showed no new significant abnormalities. Electromyography (EMG) testing revealed persistent motor activity in the lumbar paraspinal muscles, and a severe muscle spasm induced by the puncture. Due to suspicion of an autoimmune disorder within the SPS spectrum, antibody tests were conducted, and positive anti-GAD antibodies were identified. The patient was advised to undergo further testing to evaluate the health of other organ systems. Treatment with benzodiazepines was initiated.Conclusions:This clinical case illustrates the challenges that can be faced when diagnosing SPS. Injuries from an athletic lifestyle and other neurological conditions may mask the onset of symptoms. Therefore, a detailed medical history, radiological findings and laboratory antibody tests remain essential for the differential diagnosis.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Małgorzata Sebestjaniuk, Karolina Buriło, Martyna Chojnowska, Łukasz Więcław

Title: Late-onset Dandy-Walker Syndrome with epilepsy: a case report

Abstract No. 133

Dandy-Walker Syndrome (DWS) is one of the most common congenital cerebellar malformations, characterized by hypoplasia or agenesis of the cerebellar vermis and enlargement of the fourth ventricle. The condition arises due to a combination of genetic and environmental factors, including chromosomal abnormalities such as de novo deletions in the 3q22-q24 region, as well as potential intrauterine influences. Clinically, DWS manifests with a broad spectrum of neurological impairments, including cerebellar ataxia, nystagmus, developmental delays, and epilepsy, often leading to significant disability from early childhood. Nearly 90% of affected individuals develop non- communicating hydrocephalus, which typically requires ventriculoperitoneal
shunting to alleviate intracranial pressure. While there is no definitive causal therapy for DWS, current management focuses on symptomatic treatment and supportive care, emphasizing the need for further research into potential therapeutic approaches.Description: A 46-year-old male patient was admitted to the Department of Neurology in May 2024 due to multiple consecutive epileptic seizures with intermittent recovery of consciousness. His medical history included a diagnosis of epilepsy in 2022, as well as primary hypertension. On admission, the patient exhibited symptoms of cerebellar syndrome, including dysarthria, reduced lexical fluency, and impaired attention. A CT scan with angio-CT revealed significant atrophy of both the cerebellar vermis and hemispheres, a moderately dilated fourth ventricle, and mild cortical and subcortical atrophy. MRI confirmed these findings, additionally showing T2hyperintense lesions in the fronto-parietal region and small, symmetrical SWIhypointense lesions in the basal cerebrum. Furthermore, MRI identified Dandy-Walkerassociated malformations, including upward displacement of the tentorium cerebelli, mild asymmetry of the lateral ventricles, and dilation of the cisterna magna cerebri, confirming the diagnosis of Dandy-Walker Syndrome (DWS). An EEG examination performed on admission revealed epileptiform (paroxysmal) activity, further

supporting the diagnosis of symptomatic epilepsy. The patient's antiepileptic regimen was adjusted, including the reintroduction of valproate, resulting in significant clinical improvement. No further seizures were observed during the subsequent week of hospitalization.Conclusion: Dandy-Walker Syndrome (DWS) is a congenital cerebellar malformation that may remain asymptomatic or only mildly symptomatic until adulthood. This case highlights the importance of considering DWS as a potential cause of late-onset recurrent epileptic seizures in adults, emphasizing the need for thorough neurological and imaging evaluations in similar cases.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Julia Matras, Stanisław Czachorowski

Title: Recurrent Glioblastoma G4: A Case Report on Multiple Resections and Long-Term Surgical Management

Abstract No. 134

Glioblastoma (GBM) is the most common and aggressive primary malignant brain tumor, characterized by rapid progression, high recurrence rates, and poor prognosis. Despite multimodal treatment, including maximal safe resection, radiotherapy, and chemotherapy, recurrence remains inevitable. This case report illustrates the challenges associated with recurrent GBM, emphasizing the complexities of long-term surgical management and postoperative complications.Case PresentationWe present a case of a 47-year-old male who was admitted in February 2020, with a two-week history of severe persistent headaches. Neurological examination was unremarkable, and imaging revealed a right temporooccipital tumor. Gross total resection was performed, and histopathological analysis confirmed glioblastoma G4.Over the next four years, routine MRI showed recurrent foci, mulitple new brain tumors within the post-operative cavities and independently in new regions of the right cerebral hemisphere. The patient underwent four additional surgical resections, each followed by a post-operative MRI confirming a gross total tumor resection.In December 2024, a patient was admitted with severe headaches, fever, and a visible subcutaneous fluid mass in the right temporal region. Magnetic resonance imaging revealed a subdural fluid collection along the right cerebral hemisphere, accompanied by extensive edema, indicative of subdural empyema. Empirical broad-spectrum antibiotic therapy was initiated. However, within a few hours, the patient experienced a seizure, followed by rapid neurological and systemic deterioration. Emergency surgical intervention was performed, including the evacuation of the subdural empyema, decompressive craniectomy (removal of bone flaps over the right cerebral hemisphere), and excision of an abscess within the post-operative cavity from a previous tumor resection.ConclusionThis case highlights the aggressive nature of recurrent GBM and the challenges of repeated surgical interventions. Despite multiple gross total resections, the high recurrence rate and post-operative complications necessitate a multidisciplinary approach for optimal patient outcomes. Rigorous post-

operative surveillance, timely surgical decision-making, and management of complications are critical in the management of recurrent GBM. Further research into novel therapeutic approaches is warranted to improve survival and quality of life in patients with GBM.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Kamil Sokołowski, Piotr Wysokiński

Title: 2 Case Reports of Neuromyelitis optica spectrum disorders (NMOSD)

Abstract No. 135

Neuromyelitis optica spectrum disorders (NMOSD) represent a neurodegenerative pathology precipitated by the presence of antibodies targeting aquaporin 4 (AQP4). These antibodies instigate an inflammatory response, leading to the degeneration of astrocytes and oligodendrocytes, ultimately resulting in demyelination. Manifestations commonly encompass a decline in visual acuity, periorbital pain, paralysis of the upper and lower extremities, sensory impairments, and urinary bladder dysfunction. Diagnostic procedures involve magnetic resonance imaging (MRI), optical coherence tomography (OCT), and the identification of AQP4 antibodies. The therapeutic approach to NMOSD is stratified into interventions addressing acute relapses and those aimed at modifying the course of the disease. A 40-year-old woman with a medical history indicative of seropositive NMOSD and a 31-year-old woman experiencing compromised lower limb mobility during the 24th week of gestation were admitted to the Department of Neurology. Upon neurological examination, both patients exhibited muscular weakness in the limbs, brisk deep tendon reflexes, and hypoaesthesia in the older patient. Brain magnetic resonance imaging (MRI) revealed extensive lesions with demyelinating characteristics, and the younger patient did not exhibit aquaporin 4 (AQP4) antibodies. Treatment for both individuals involved the administration of glucocorticoids and azathioprine. Additionally, immunoglobulins were incorporated into the therapeutic regimen for the older patient. While the older patient qualified for enrollment in a new drug program, the younger patient could not participate due to the seronegative trajectory of NMOSD.The management of the younger patient presented a therapeutic dilemma. Her exclusion from the new drug program was attributed to the absence of AQP4 antibodies. Furthermore, the utilization of glucocorticoids posed additional challenges, given the potential risks associated with their use during fetal development. In contrast, the older patient, with seropositive NMOSD, benefited from a broader spectrum of therapeutic options.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Jacek Pietruszkiewicz

Title: Visiting the exorcist priest: A case study of psychotic depression with religious delusions interpreted as possession

Abstract No. 136

Psychotic depression is a particularly severe form of depressive disorder in which a depressed mood is accompanied by delusions or hallucinations. It can be difficult to diagnose, especially in situations where psychotic symptoms take an unusual form - such as those with a religious or pseudo-spiritual content. Study case:A 57-year-old female patient was admitted to the hospital subsequent to a failed suicide attempt. She presented psychotic symptoms, which indicated that she was experiencing perceptual disturbances in the form of auditory imperative hallucinations and thought disturbances in the form of delusions of persecution and possession. The patient identified the voice as a devil, which instructed her to engage in various activities as a form of possession. Consequently, she sought assistance from an exorcist priest. Despite the implementation of an appropriate treatment with antipsychotic and antidepressant medications, the patient did not adhere to the prescribed recommendations and subsequently consulted another medical practitioner. The latter, interpreting the patient's symptoms as solely related to severe anxiety, recommended discontinuing antipsychotic medication in favor of anti-anxiety treatment - a decision that led to a worsening of her mental state. Unfortunately, it is not possible to say conclusively whether the patient then dissimulated or deliberately lied about her psychotic symptoms. In aggravated psychosis, the patient had another hospitalization in a ward in Bialystok, where a high score on the Geriatric Depression Scale (22 points) indicated a severe depressive state. The patient reported that a voice in her head controlled her to such an extent that it determined all her activities and movements, as well as reminding her of all the negative past experiences. The patient's adult son, who was closely involved with her, CR6 developed shared psychotic symptoms (folie à deux), which effectively resolved

following neuroleptic treatment. The accurate diagnosis of a recurrence of a psychotic depressive episode enabled the selection of an appropriate medication, leading to a substantial enhancement in the patient's functionality.Conclusions:Although psychotic depression has been diagnosed, the coexistence of other disorders, including a possible organic basis, cannot be completely excluded. A thorough differential diagnosis is indicated in similar cases. Dissociative disorders in the form of trance and obsession should also be considered. In addition, psychotic depression significantly increases the risk of suicidal behaviour, especially in cases of relapse and lack of patient cooperation in the treatment process. It is therefore essential to both diagnose the condition correctly and monitor treatment.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Monika Kalicka

Title: The complex relationship between substance use and schizophrenia: a case - based perspective

Abstract No. 137

The potential link between psychoactive substance use and the onset of psychotic disorders is widely studied, particularly in young adults. Research suggests that substances such as cannabis, MDMA, and hallucinogens may trigger transient psychotic episodes or contribute to the development of chronic psychiatric conditions like schizophrenia, especially in vulnerable individuals.Case report: A 24-year-old man, previously mentally healthy and studying in the Netherlands, developed a psychotic episode. Since the age of 16, he had occasionally used marijuana, increasing to regular use in 2020. He had also experimented with amphetamines and hallucinogenic mushrooms. In December 2021, a few days after taking his first single dose of MDMA, he experienced first psychotic episode, characterized by grandiosity, reduced need for sleep, referential thinking and suicidal thoughts. His parents brought him back to Poland, where he was hospitalized in Chorzów in January 2022.He was diagnosed with paranoid schizophrenia and substance-induced mental disorders. Treatment with haloperidol, aripiprazole, and diazepam was discontinued due to side effects, and he discharged himself. In February 2022, he was re-hospitalized at a private clinic and treated with olanzapine and aripiprazole, leading to partial remission. However, affective flattening and motivational deficits persisted. A day therapy program followed, during which fluoxetine was introduced.In February 2023, after discontinuing medication and resuming substance use, he experienced a severe relapse requiring urgent hospitalization. Symptoms included hallucinations, persecutory delusions, and disorganized behavior. His aggressive behavior necessitated direct restraint. Treatment included olanzapine, risperidone, and ultimately clozapine (150 mg/day), leading to gradual improvement. He continues treatment with clozapine and amisulpride, aims to remain abstinent, and plans to resume his studies. Ongoing monitoring is necessary due to the risk of relapse.Conclusion: This case highlights the association between psychoactive substance use and the onset of schizophrenia in a previously healthy individual. Relapses following

substance use emphasize the need for longterm treatment adherence and substance avoidance in preventing psychotic episodes.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Agata Kolanek

Title: Severe Anorexia Nervosa in a 16-Year-Old Adolescent: A Case Report Highlighting Recovery Challenges in an Overlooked and Underrecognized Patient

Abstract No. 138

Anorexia nervosa is a complex and potentially life-threatening psychiatric disorder, predominantly affecting adolescents, with an estimated prevalence of 0.8% to 1.8% among females under 18 years of age. It carries the highest mortality rate of all mental health disorders, with mortality estimates ranging from 10% to 20%, attributed to severe somatic complications and suicide. Due to its significant morbidity and mortality, early identification and the implementation of a comprehensive, multidisciplinary treatment strategy are critical to improving clinical outcomes. Anorexia nervosa is characterized by a persistent restriction of energy intake leading to significantly low body weight, an intense fear of gaining weight or becoming fat despite being underweight, and a disturbance in the way one's body weight or shape is perceived. Additionally, there is often an undue influence of body weight or shape on self-evaluation, or a persistent lack of recognition regarding the seriousness of the current low body weight.Case

Presentation: A 16-year-old female was admitted to the hospital presenting with severe anorexia nervosa, evidenced by profound weight loss resulting in a body mass index (BMI) of 12.3 kg/m², marked bradycardia, and primary amenorrhea. The current admission followed her second suicide attempt. The patient had a history of three prior hospitalizations related to her eating disorder and its associated complications. Her initial hospitalization was in a gastroenterology unit due to progressive weight loss (BMI 13.73 kg/m²), insomnia, and generalized weakness. Following an extensive evaluation, organic and somatic causes were excluded, and she was subsequently transferred to a psychiatric facility for further management. The second hospitalization occurred in an endocrinology department due to decreased serum TSH, free T3, and free T4 levels. After stabilization of thyroid hormone levels and correction of electrolyte imbalances, she was again referred to

department of psychiatry. The third admission followed her first suicide attempt.Conclusion: This case highlights the complexity and severity of anorexia nervosa in adolescents, particularly when long-standing low body weight delays recognition and diagnosis. It underscores the necessity for heightened clinical vigilance, even in patients with a history of constitutional thinness. Early identification and intervention are critical to prevent life-threatening complications, including severe malnutrition, endocrine dysfunction, and psychiatric comorbidities such as suicidality.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Oliwia Froń, Paulina Bałdyga

Title: I feel stronger than you and I like that - case report

Abstract No. 139

Sexual crimes are among the most condemned criminal acts, and there is particular public outrage at those whose victims are minors. Such crimes violate fundamental human rights, such as freedom and dignity, and cause serious physical and emotional consequences for victims. Pedophilia is a psychosexual disorder classified as a paraphilia, characterized by established and intense sexual preferences for children who have not yet reached puberty. From the point of view of psychology and law, pedophilia poses a serious threat to the safety and well-being of children, so it is crucial to take effective therapeutic and rehabilitative measures against people with such inclinations.This article presents the case of a homosexual pedophile who underwent a comprehensive therapeutic and rehabilitation process in a closed center. This process included cognitive-behavioral therapy, interventions aimed at changing thinking patterns and impulse control. After completing therapy at the center, the patient continues outpatient treatment, which is an important part of the prevention and monitoring of risky behavior. The case study makes it possible to analyze the effectiveness of the therapeutic methods used, their impact on the control of deviant behavior and the potential challenges of social reintegration of people after therapy. The article also discusses the legal and ethical aspects of therapy and the dilemmas associated with the rehabilitation of sex offenders against minors.

Book of Abstracts

Session:

CR6 Neurology & Psychiatry

AULA 4

SAT 26.04.2025 10:00-12:00

Authors: Zofia Stankiewicz, Marta Berczyńska, Stefan Modzelewski, Wiktoria Jurczykowska, Kinga Chomicka

Title: Acute Psychosis Following Administration of Cabergoline: Case Report of a 42Year-Old Woman with an Untreatable Pituitary Adenoma and Post-Traumatic Epilepsy

Abstract No. 140

Cabergoline is a dopamine D2 receptor agonist to inhibit the secretion of prolactin by the anterior pituitary. It is used classically for hyperprolactinemia, due to Parkinsons disease or pituitary adenomas. Among its infrequent but reported side effects is acute psychosis that resolves on discontinuation of the drug.Case Presentation:We present a case of a 42-yearold woman with a diagnosis of non-operable pituitary microadenoma, secondary hyperprolactinemia, and post-traumatic epilepsy. The patient presented with confusion, motor stereotypies, and disorganized behaviour. During her history, twilight state episodes had been described, and the family explained them as due to past traumatic events. She was admitted to the Psychiatric Department, where cabergoline was initiated to suppress hormonal activity of the tumour and normalize prolactin levels. Concurrent treatment with antipsychotics was also administered. In a matter of weeks following the start of cabergoline therapy, the patient experienced a violent attack of psychosis with delusions of being pregnant, escape attempts, paranoid delusions of receiving medical experimentation, and thinking she was her own twin sister. These symptoms gradually subsided following cabergoline withdrawal. During outpatient endocrinological care, the patient was managed with quinagolide as a second-generation dopamine agonist, along with continuation of ongoing antipsychotic treatment. Upon initiation of quinagolide, a recurrence of acute psychosis was observed, with similar symptomatology to that of the first episode. These psychiatric symptoms were regarded as secondary to dopaminergic treatments administered.Conclusions:Treatment with dopamine D2 receptor agonists such as cabergoline may increase the risk for acute psychosis, particularly in the context of previously existing psychiatric vulnerability. Any subsequent use of such drugs in patients with pituitary adenoma and underlying psychiatric illness should be preceded by a careful psychiatric assessment and requires careful clinical observation during therapy.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Maja Łopatecka, Filip Bossowski, Magdalena Skorupska

Title: The Critical Role of Genetic Testing in Identifying and Managing Bloom Syndrome

Abstract No. 141

Short stature, clinically defined as a height below the third percentile for age and sex, arises from a spectrum of etiologies encompassing endocrine, metabolic, and genetic determinants. Among these, Bloom syndrome (BS) represents a rare autosomal recessive condition characterized by marked growth retardation, immune dysfunction, distinctive craniofacial morphology, and an elevated predisposition to malignancy. This syndrome stems from mutations within the BLM gene, which compromises genomic integrity and stability. This case highlights the challenges in diagnosing and managing unexplained severe growth retardation, ultimately identified as Bloom syndrome.Case Description:A 5-year 9-month-old girl was evaluated for severe short stature at the Pediatric Endocrinology Clinic of the Medical University of Białystok. She had recurrent respiratory infections and hypothyroidism (treated with Euthyrox 25 µg). Born small for gestational age (SGA) at 39 weeks, she had a birth weight of 1580 g (-4.7 SDS) and a length of 44 cm (-2.9 SDS). Dysmorphic features included a long, narrow face, micrognathia, and café-au-lait macules. Endocrinological workup showed normal growth hormone (GH) secretion. Genetic testing (karyotype 46, XX and methylation analysis for Silver-Russell syndrome) was initially unremarkable. Whole exome sequencing (WES) identified a homozygous pathogenic variant in the BLM gene (c.1933C>T, p.Q645*), confirming Bloom syndrome.Discussion:Genetic evaluation is essential for children exhibiting unexplained growth delays, particularly when accompanied by dysmorphic features and immunodeficiency. In cases where standard diagnostic tests yield inconclusive results, Whole Exome Sequencing (WES) can be instrumental in identifying causative mutations, thereby underscoring its clinical utility. Furthermore, Whole Genome Sequencing (WGS) holds the potential to enhance diagnostic accuracy through the detection of structural and deep intronic variants that may be missed by WES.The patient initially received rhGH therapy (growth velocity: 5.4 cm/year) but discontinued it after a Bloom syndrome diagnosis due to cancer risk. Clinical care prioritizes cancer monitoring, infection prevention, and minimizing DNAdamaging exposures like UV

and radiation.Conclusions:Whole-genome sequencing plays a pivotal role in the diagnosis and management of several medical conditions. Specifically, it is indispensable for diagnosing severe short stature and pinpointing rare syndromes such as Bloom syndrome, thereby informing appropriate clinical care. Facilitating early intervention and cancer surveillance, this technique also aids in averting potentially harmful treatments. A proper approach, incorporating wholegenome sequencing, is strongly warranted to optimize patient outcomes.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Gabriela Ciszek, Anna Futyma, Julia Gierszewska

Title: The NeverEnding Story - navigating the long diagnostic journey to identifying rare cause of developmental delay

Abstract No. 142

Intellectual disability (ID) affects about 2-3% of the population worldwide and poses a significant diagnostic challenge due to a multitude of diverse etiological contributors. Mental retardation type 57 (MRD57) is caused by heterozygous TLK2 pathogenic variants. Affected patients exhibit facial dysmorphism, neurological and behavioral disorders, ophthalmic abnormalities, and skeletal features apart from ID of varying degrees.Case report: Since 3 months of age, the boy has exhibited generalized muscular hypotonia which resulted in a delay in attaining motor milestones. Brain imaging showed ventricular widening, hypoxicischemic regions and a small pituitary, which combined with growth delay and microsomia triggered endocrine evaluation. After a psychiatric assessment, psychomotor developmental delay (DD) and autism were diagnosed. Moreover, the patient was hyperopic and presented dysmorphic facial features, i.a., large ears. Family history for similar disorders was negative.
The initial genetic investigation included karyotype, multiplex-ligation probe amplification (MLPA) for spinal muscular atrophy (SMA), the most common microdeletions, microduplications and methylation analysis for Silver-Russel syndrome, and TP-PCR for fraX syndrome, which gave unremarkable result. Whole Exome Sequencing (WES) revealed a known, heterozygous, de novo pathogenic variant in the TLK2 gene, c.1550+1G>A, which is predicted by in silico tools to abrogate the donor splice site. Arraybased Comparative Genomic Hybridization (aCGH) showed a duplication of the region 15q13.3 inherited from his healthy father, which was previously reported in DD/ID patients however, its clinical significance remains uncertain. Based on the clinical and molecular data, a diagnosis of

MRD57 has been put forward.Conclusions: The diagnostic process of ID/DD is long and can be referred to as a so-called diagnostic odyssey. Genetic testing is an indispensable tool in the final unraveling the clinical mystery as WES allowed making a precise diagnosis in the present case. Delayed etiological diagnosis hinders the early provision of interprofessional care, thereby adversely affecting the quality of life of not only patients but also whole families.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Varouj Vartanian, Patrycja Puciato

Title: Autonomic Nervous System Dysfunction in a Teen with Chronic GI and Urinary Symptoms

Abstract No. 143

A 15-year-old girl presented with a history of chronic constipation and urinary retention which required self-catheterization. Despite multiple hospitalizations and extensive testing, no definitive diagnosis was reached. Advanced imaging of the brain, spine, and abdomen ruled out structural abnormalities, and manometry confirmed the presence of the rectoanal inhibitory reflex. Episodes of syncope and a febrile seizure raise concerns about underlying autonomic dysfunction. Colon biopsy revealed inflammation and cryptitis, which suggests a possible immune-mediated process. Given the concurrent gastrointestinal dysmotility and urinary retention symptoms, autonomic nervous system involvement is suspected. The purpose of highlighting this case is to emphasize the challenges in diagnosing neurogastroenterological disorders in pediatric patients. A collaborative approach between pediatric specialists is essential, as gastrointestinal symptoms can stem from neurological or infectious origins rather than a primary GI disorder.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Oliwia Froń

Title: Abused child syndrome - case report

Abstract No. 144

Abused child syndrome remains a significant public health concern with profound physical and psychological implications. We present a case report of a 14-year-old child who was admitted to the child inpatient psychiatric department of a pediatric hospital with signs and symptoms of abuse. The child was malnourished but did not exhibit physical injuries. A detailed medical history revealed inconsistent explanations regarding the diets used by the mother, allegedly recommended by a neurologist. Diagnostic evaluation, including medical examination, laboratory tests, and imaging studies, supported the suspicion of child maltreatment. The case was reported to the police and the court. Appropriate interventions were initiated, including treatment, social work involvement, and psychosocial support. This case highlights the importance of early recognition, comprehensive assessment, and multidisciplinary cooperation in addressing child abuse. Medical professionals play a critical role in child safety and should be vigilant in identifying and reporting suspected cases of child abuse and neglect. How they respond and whether they notify the justice authorities may determine the child's future fate and even his or her life.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Eliza Viktorija Sinkevič

Title: Intercranial Abscess As A Complication Of Lemierre's Syndrome: A Case Report

Abstract No. 145

Lemierre’s syndrome typically occurs in healthy teenagers and young adults after a recent oropharyngeal infection. It is characterised by suppurative thrombophlebitis of the internal jugular vein and septicaemia caused by Fusobacterium necrophorum, leading to metastatic lesions in lungs, joints and bones, and, in rare cases, the central nervous system, including brain abscesses.Aim of the study:Materials and methods.A 16-year-old male presented with a three-day history of headache and progressively worsening unilateral facial swelling in the right temporal region, associated with pain on touch, eye closure, and chewing, chills and vomiting. He had a history of HSV infection one week prior. Upon arrival the patient was febrile, appeared lethargic, septic and, with signs of dehydration. A painful mass was visible and palpable on the right temporal area. Neurological examination revealed positive meningeal signs. Laboratory investigations showed leukocytosis with neutrophilia, high Creactive protein (389.8 mg/L) and procalcitonin (26.9 µg/L). A blood culture was obtained, and empirical antibacterial treatment with ceftriaxone was initiated. Soft tissue ultrasound revealed interfascial fluid accumulation in the subcutaneous tissue on the right side of the forehead and temporomandibular joint and possible signs of venous thrombosis. Cerebral CT and subsequent CTA demonstrated a ~3 × 1.8 × 3.5 cm frontal epidural fluid collection with a wide fluid-air interface in the right frontal sinus. Fusobacterium necrophorum was identified in the blood culture, prompting the addition of metronidazole to ceftriaxone. Two days later, surgical removal of the intracranial abscess was performed. Abscess culture revealed Propionibacterium spp. Symptom regression was observed, and follow-up CTA two days postoperatively showed no remaining frontal epidural fluid collection.

Conclusions.Neurological complications in Lemierre’s syndrome are rare but should be considered in the differential diagnosis of infectious etiologies, especially before culture results are available. Timely diagnosis and management were critical in this case.The polymicrobial nature of the infection aligns with literature findings, which report that up to one third of Lemierre‘s syndrome cases involve multiple pathogens.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Aleksandra Lewczak, Mateusz Malinowski

Title: Ear Candling in a Child: An Atypical Course of Infection Following an Alternative Treatment

Abstract No. 146

Inflammatory changes in the auricle of children may arise from various causes, including bacterial, viral, fungal infections, allergic reactions, or even mechanical injuries. In recent years, there has been an increase in the popularity of alternative treatments such as ear candling, which carries the risk of complications, including infections. The present case illustrates the development of a bacterial infection in a 7year-old boy following an ear candling procedure, which was performed to address hearing loss.Case Report:A 7-year-old boy presented to the emergency department with redness and papular skin lesions on both auricles (left > right), which appeared the day after an ear candling procedure performed by his mother to address hearing loss. The boy also reported swimming pool use, which may have contributed to the infection. The skin lesions, more pronounced on the left side, involved the scaphoid fossa, lobule, and the pre- and postauricular areas. The patient was afebrile and did not report any pain. The mother had applied topical hydrocortisone (Cortineff) twice, with no significant improvement.Physical examination revealed serous discharge from the left ear with no signs of acute otitis media. Laboratory tests showed normal C-reactive protein (CRP) and white blood cell count (WBC). A swab from the left ear demonstrated a significant growth of Staphylococcus aureus (MRSA) and Pseudomonas stutzeri. The patient was treated with the following regimen: • Cetraxal ear drops (twice daily) to address the inflammatory changes in the auditory canal, • Oral acyclovir (Heviran) due to suspicion of viral infection (herpes zoster oticus), • Antiallergic medications to mitigate a potential allergic reaction, Topical Linomag ointment applied to the lesions on the auricles.In the following days, the patient reported improvement, including reduced itching and discharge. Follow-up visits showed significant reduction in skin lesions, decreased erythema, and drying of the discharge. The ears were repeatedly cleaned under a microscope. After approximately two weeks, the patient no longer reported itching, and both the skin and auditory canals had returned to normal.Conclusions:This case highlights the potential complications associated with ear candling in children, including the risk of

bacterial infections caused by alarm pathogens such as MRSA. Regular cleaning of the auditory canals under microscopic guidance and the use of appropriate topical medications can effectively manage symptoms and lead to recovery.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Patrycja Puciato, Kiara Sequiera, Varouj Vartanian

Title: Seronegative Encephalitis Masking Itself as Lymphoma

Abstract No. 147

Encephalitis presents with fever, headache and altered mental status. It is associated with long-term neurologic sequelae and even death in children. Its incidence is approximately 7.5 cases per 100 000 patient years. While viruses are often responsible, an etiology is identified in approximately 50% of cases. This leaves clinicians with limited guidance for treatment or prognosis. Importantly, the cumulative sensitivity of antineuronal antibody testing in confirmed cases is only 60–80%, leaving room for seronegative presentations.Case presentation: A 17-year-old boy was admitted with severe headaches, diplopia, drowsiness, auditory hallucinations, and confusion. Initial head CT was normal, and laboratory tests showed low inflammatory markers. Cerebrospinal fluid (CSF) analysis revealed mild pleocytosis with lymphocytic predominance and normal protein levels. Serology confirmed IgM and IgG antibodies against B. burgdorferi, though Lyme neuroinfection was later excluded. The patient started developing motor aphasia. MRI showed an extensive white matter lesion in the left frontal, parietal and temporal lobes. Initial treatment with antibiotics and mannitol led to symptom improvement, but intermittent fever and recurrent confusion prompted further investigation. Extensive infectious and autoimmune testing was negative.
A follow-up MRI showed lesion progression, raising suspicion of an aggressive neoplasm. Given the imaging findings, lymphoma was strongly considered, and a biopsy was performed, yielding a diagnosis of lymphomatoid granulomatosis grade I. As the disease progressed, the patient developed recurrent seizures with right hemiparesis due to extensive brain edema. Anti-edematous treatment provided temporary relief, but symptoms recurred. The tumor was deemed inoperable, and the patient underwent chemotherapy, which proved ineffective as the brain lesion continued to enlarge. A second biopsy was performed, leading to a revised diagnosis of unspecified encephalitis. In response, the patient received a four day course of intravenous immunoglobulins (IVIG), resulting in a 75% reduction in lesion size. He is currently stable and awaiting a second

course of IVIG.Conclusions: This case underscores the diagnostic challenges of encephalitis, with an evolving presentation initially mistaken for Lyme neuroinfection and later an inoperable lymphoma. Despite extensive testing, a definitive diagnosis remained elusive until a second biopsy identified unspecified encephalitis. The patient's remarkable response to immunotherapy highlights the limitations of current diagnostic tools and the need for clinical vigilance in managing complex cases.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Deepanshu Karmakar

Title: Case Report on a 2-Year-Old Girl with Severe Sepsis from Streptococcus pyogenes.

Abstract No. 148

Streptococcus pyogenes (Group A Streptococcus, GAS) is known to cause various diseases, from mild pharyngitis to invasive sepsis. Invasive GAS infections, particularly in children, can lead to multi-organ dysfunction due to the production of superantigens. Pediatric patients can show rapid progression and severe outcomes due to exacerbation of these superantigens. Despite advances in intensive care and antimicrobial therapy, mortality in severe GAS sepsis remains high, highlighting the importance of early recognition and aggressive intervention. Case Presentation: A previously healthy girl of 2 years was referred with a suspicion of iGAS sepsis. She presented with fever, loose stools, increasing purulent conjunctivitis, and marbled skin. Her vitals HR- 150bpm, RR-60/40 mmHg, SpO_2-90%, capillary refill(>5 sec). She responded to pain and was agitated. After stabilization of oxygen levels, dexamethasone and broad-spectrum antibiotics were started. Initial tests showed high inflammatory markers, coagulation imbalances, electrolyte imbalances, metabolic acidosis, hypoalbuminemia, and hypoglycemia. Despite the treatment with fluid therapy for electrolyte imbalances, infusions of broad-spectrum antibiotics(Clindamycin, Vancomycin, and Cefotaxime), steroids, and FFP for coagulation abnormalities, she deteriorated. She developed a rash and fluid overload in her kidneys and lungs.During her hospitalization, she presented with progressive respiratory deterioration, requiring ICU admission with ventilator support. Imaging studies revealed bilateral pleural effusions and consolidations, so the child had to undergo multiple thoracocentesis. Due to this, dopamine infusions were started to preserve circulation, and intensive diuresis with a fractionated dose of furosemide was done for the fluid overload and renal dysfunction. Due to the deterioration of the clinical condition, Linezolid and Meropenem were introduced.The child successfully weaned off of ventilatory support after the 7th day in the ICU. She was transitioned to enteral feeding and continued to improve as the inflammatory markers resolved. However, she experienced postseptic skin desquamation on the palms and soles, mild fluid retention, and bradycardia at night, which required cardiology follow-up. She was

discharged after 19 days, and she was in good general condition with recommendations for pulmonary, cardiology, and neurology follow-up.
Conclusion:This case brings out the typical extremity and aggressiveness of iGAS sepsis in the pediatric age group with rapidity in the development of multi-organ dysfunction. Its early recognition and intervention, including broad-spectrum antibiotics, immunomodulation, and intensive organ support, are vital in preventing further deterioration. Hence, a multidisciplinary approach has a bigger role in successful recovery, which is relevant for the timeliness of critical care in such severe cases

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Kiara Sequeira.

Title: Encephalitis In A Pediatric Patient Of Unknown Etiology: An Undiagnosed Case

Abstract No. 149

Encephalitis in children poses significant diagnostic challenges, particularly when a definitive etiology remains unknown despite extensive investigation. This case underscores the difficulties encountered in managing encephalitis of unknown origin and the importance of a comprehensive clinical approach.Case Report: A 5-year-9month-old female initially presented in October with febrile seizures, vomiting, cough and abdominal pain. Initial MRI showed brain lesions suggesting stroke. Later during hospitalization, seizures with tongue numbness, incoherent speech, and facial twitching were seen. Investigations revealed elevated inflammatory markers and cerebrospinal fluid (CSF) pleocytosis with a predominance of granulocytes and an additional MRI suggested viral inflammation encephalitis. Despite extensive testing for bacterial, viral, fungal, and autoimmune etiologies, including Tick-borne encephalitis, West Nile Virus, and Listeria monocytogenes, no causative agent was identified. Treatment focused on supportive care, including antibiotics, antivirals, anticonvulsants, and anti-inflammatory therapy. Gradual clinical improvement was observed, with resolution of the neurological symptoms and the patient was discharged.In February, a follow up MRI revealed that her brain lesion increased in size. She is currently on anticonvulsants and has no seizures but an increased appetite thus is evaluated for metabolic disorders.Conclusion: The exact cause of encephalitis is still unclear highlighting the challenges when the causative agent remains unidentified. This case emphasizes a need for considering a broad differential diagnosis and the limitations of current diagnostic tools in identifying the etiology of encephalitis in some pediatric patients.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Gabriela Pierożak

Title: Aseptic Meningitis as a Neurological Complication of Mycoplasma pneumoniae Infection in Pediatric Patients – a case study

Abstract No. 150

Aseptic meningitis is an inflammatory condition of the meninges with cerebrospinal fluid (CSF) pleocytosis in the absence of bacterial pathogens detectable in standard cultures. While viral infections are common, Mycoplasma pneumoniae (M. pneumoniae) has also been recognized as a cause of respiratory and neurological complications. It primarily causes community-acquired pneumonia but can also affect the central nervous system (CNS) through direct infection or immune-mediated processes.Clinical Case: A 15-year-old girl was admitted with a two-week history of fever (up to 39.4°C) and progressively worsening cough. Initial antibiotic treatment showed no improvement. Before hospitalization, she developed headaches, neck pain, photophobia, and vomiting. On admission, she appeared apathetic, moderately dehydrated, with decreased breath sounds in the right interscapular region. Laboratory tests revealed elevated inflammatory markers (CRP 130.4 mg/L), normocytic anemia, and neutrophilic leukocytosis. A chest X-ray showed pulmonary infiltrates in the upper right lung with bilateral peribronchial markings. Tests for respiratory viruses, antistreptolysin O (ASO), and EpsteinBarr virus were negative. Due to suspected neuroinfection, a lumbar puncture was performed, revealing pleocytosis. The patient was transferred to an Infectious Disease Clinic for further evaluation. Serological tests detected elevated M. pneumoniae IgM and IgG, and PCR from a nasopharyngeal swab confirmed M. pneumoniae DNA. However, CSF PCR and blood cultures were negative for bacterial or viral pathogens. Additional tests ruled out other infectious causes (tickborne diseases, cytomegalovirus, toxoplasmosis, listeriosis). On day two, the patient developed transient psychotic symptoms, prompting neurological evaluation, including MRI and EEG, which were unremarkable. The findings confirmed M. pneumoniae infection with immune-mediated aseptic meningitis. Empirical antibiotic treatment and supportive therapy was started and later adjusted to doxycycline. The patient showed significant improvement and was discharged in good condition. Follow-up

revealed full recovery.Conclusion: Aseptic meningitis associated with M. pneumoniae is a rare but recognized neurological complication. While M. pneumoniae primarily affects the respiratory tract, it can also cause CNS involvement. In this case, the absence of M. pneumoniae DNA in CSF suggests an immune-mediated response rather than direct bacterial invasion. This highlights the challenge of distinguishing between infectious and post-infectious neurological manifestations. Early recognition and appropriate antimicrobial therapy are crucial for favorable outcomes.

Book of Abstracts

Session:

CR7 Paediatrics II
AULA 1

SAT 26.04.2025 12:30-14:30

Authors: Sonia Serafin

Title: Phenotype-genotype patterns as a way to better understand the etiology of autism?

Abstract No. 152

Autism is a neurodevelopmental disorder with a complex etiology, in which genetic factors play an important role. Due to the development of knowledge of the spectrum of this disease, more symptoms that may indicate it are recognized. Thus, the key diagnostic issue becomes the knowledge of a specific set of symptoms supporting an incriminating neuropsychological diagnosis. Chromosome 22 duplication is a rare genetic disorder in which a fragment of chromosome 22 is duplicated. The 22q11.2 mutation is most commonly described and manifests with a wide range of neurological and developmental symptoms, including autism spectrum disorder, muscular hypotonia, facial dysmorphia, behavioral disorders and epilepsy. Case study ;The patient was admitted to the Department of Neurology and Epileptology at the age of 7 for further diagnosis of lack of expected development. Due to problems with self-control of aggression, the boy is under the care of the psychological counseling center, where he was diagnosed with autism spectrum disorder at the age of 6. The counseling center observed various symptoms indicating developmental delays. According to the parent's accounts, there was a delay in reaching developmental milestones from birth. Above that, it is known that the boy is afraid of the dark, at night he wakes up 2-3 times, but the mother reports improvement with age. In kindergarten, the boy distances himself from his peer group. He willingly participates in sensory play, but only with familiar textures. He also presents auditory hypersensitivity. Since the age of 3, due to speech development delays, the boy has been attending a neurologopedist. Currently, the patient's speech remains abnormal, but has become intelligible. At the time of admission, decreased muscle tone and impaired body motor skills were observed. At the psychological counseling center, attention was also drawn to episodic “constipation,” which was associated with epileptic unconscious seizures. During hospitalization, an elective sleep EEG was performed to diagnose epilepsy. Evaluation of the patient's history established a duplication of the 22nd chromosome. This mutation occurred for the first time in the family. The parents received genetic counseling because of their

desire to pursue protocooperation. The mutation was sporadic, occurring in only one child. A loaded family history was also established. The patient's mother's family had a history of epilepsy with absence seizures. Summary: The etiology of the autism spectrum remains incompletely understood. Certainly, genetic factors play an important role in it. Phenotype-genotype profiling may be helpful in fully understanding the etiology of the autism spectrum and the genes that determine it.

Book of Abstracts

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Dominika Szczepańska

Title: Suspected Complex Pathogenesis Of Multihormonal Chronic Post-Traumatic Hypopituitarism - Case Report

Abstract No. 155

Hypopituitarism is a condition characterized by insufficient hormone production by the pituitary gland. It may be acute or chronic and influences one or multiple hormonal axes. Recently, more attention has been paid to traumatic brain injury (TBI) as the reason for the pituitary gland dysfunction. However, the exact pathogenesis standing behind posttraumatic hypopituitarism (PTHP) seems to be more complex than previously expected.CASE REPORT:We report a case of a 62-year-old man with hypopituitarism developed after TBI. The patient with a history of pancytopenia was admitted to the department for further diagnosis of reported weakness, features accompanying hypogonadism, decreased exercise and cold tolerance observed in the last few years and reduced visual acuity recently. The patient's anamnesis included a fall from a height and hitting his head on a sandy ground 10 years before. Physical examination revealed features of gynecomastia, body hair loss and pallor. Orthostatic test revealed orthostatic hypotonia. Hormonal investigation showed hyperprolactinemia, low serum concentrations of morning cortisol, peripheral thyroid hormones, testosterone, FSH, LH, IGF-1 and elevated TgAb levels. A Synacthen test showed serum cortisol concentrations below 18 ug/dl. No serious abnormalities were found in diagnostic imaging. A pituitary MRI showed a pituitary gland of typical position and shape with no visible pathology. The overall clinical presentation suggested a multihormonal hypopituitarism. Due to a suspicion of autoimmune pituitary inflammation, additional laboratory tests were conducted, which let us exclude IgG4related diseases. The ANA panel also provided a negative outcome. The patient’s treatment included hormone replacement therapy - hydrocortisone, levothyroxine, testosterone and additionally statins. During followup, a month later, the patient presented general improvement, normalization of serum concentrations of peripheral hormones and was subsequently qualified for growth hormone therapy.CONCLUSION:The symptoms of hypopituitarism are nonspecific - the

patient was eventually diagnosed 10 years after the accident. The possible pathophysiological mechanisms behind multihormonal chronic PTHP after TBI are very complex and not easily detectable. The patient's normal pituitary image on MRI, no history of acute symptoms immediately following the injury and diagnosis 10 years after the accident, confirm complicated etiology and diagnostic difficulties of PTHP after TBI.

Book of Abstracts

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Julia Więcko, Marta Skarzyńska, Karolina Juchimowicz, Karolina Buriło, Weronika Piotrowska

Title: From Iliac Artery Aneurysm to Pyonephrosis – an unexpected link

Abstract No. 156

Acute kidney injury (AKI) is a rapid decline in kidney function, leading to the accumulation of nitrogenous waste products and electrolyte imbalances. Postrenal AKI occurs due to obstruction of urine outflow, which may be caused by conditions such as nephrolithiasis, tumors, or external compression of the urinary tract. Accordingly, in our case, we will present how an aneurysm of the common iliac artery was responsible for post-renal AKI complicated by pyonephrosis. Case Report: A 78-year-old man was admitted to the Department of Internal Medicine and Hypertension to diagnose a severe due to headache with dizziness, nausea and visual disturbances. On admission, BP was 200/100 mmHg, and HR was 38/min with a positive response to atropine. The patient had a history of hypertension and previous abdominal aortic aneurysm repair. Laboratory tests showed thrombocytopenia, hyponatremia, increased creatinine (1,66 mg/dl) and TSH (>100uU/ml) and decreased fT3 and fT4. Abdominal ultrasound revealed bilateral hydronephrosis with more prominent dilation of the left kidney. Contrast-enhanced CT of the abdomen, performed to deepen diagnostic, visualized bilateral hydronephrosis, dilated calyces and pelvis, bilateral ureteral dilatation with compression at the crossing of the iliac vessels, bilateral external iliac artery aneurysms with ureteral compression at their level. Both kidneys excreted contrast, but enhancement of the left kidney was delayed. Laboratory urine tests revealed leukocytes, erythrocytes, numerous streaks of mucus, and elevated nitrites. The patient manifested signs of pyelonephritis with elevated CRP level (345,9 mg/l), procalcitonin (0,80 ng/l). Because of suspicion of developing urosepsis, empiric antibiotic therapy (ciprofloxacin and piperacillin/tazobactam) was administered. In addition, levothyroxine supplementation was added due to severe hypothyroidism. Due to treatment, inflammation parameters decreased, and symptoms subsided. Levothyroxine

supplementation was added as initial bradycardia was a result of severe hypothyroidism. The patient had a consultation with a vascular surgeon, surgery of the left common iliac artery aneurysm repair was planned, and the patient was discharged. Conclusions: The case described a casuistic cause of bilateral hydronephrosis that originated from aneurysms of the common iliac arteries and complicated by pyonephrosis. The condition can be severe, as ureteral compression may obstruct urine flow, potentially resulting in acute post-renal failure. Although pyonephrosis is a relatively rare condition, proper diagnosis and prevention of its progression are crucial, as severe cases can lead to urosepsis, significant deterioration of the patient's condition, and ultimately death. Early recognition and prompt intervention are essential to improve outcomes and reduce risk of severe complications.

Book of Abstracts

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Katarzyna Bochniak

Title: Unexpected cause of fever in patient with transplant kidney failure – a case report

Abstract No. 157

Fever and infections are common in patients with kidney transplant, especially in ones with its failure. During evaluation of inflammation in such patients, we take many causes into consideration. Below we present an unforeseen cause of inflammation in female with endstage transplant kidney failure. A 21-year-old female with transplant kidney failure due to chronic antibody-mediated rejection, treated with automatic peritoneal dialysis (APD), was admitted to the Nephrology Department due to elevated inflammatory markers and worsening anemia in laboratory tests. Potential infection of unknown origin, because of fever, general weakness and malaise, was suspected. Blood, peritoneal dialysis fluid and urine cultures were all negative. However, abdominal CT scans revealed changes in the transplanted kidney and enlarged regional lymph nodes, suggestive of exacerbated chronic inflammation or rejection. Empirical therapy with ceftriaxone and clarithromycin was initiated, resulting in clinical improvement and decrease in inflammatory markers. Unfortunately, nine days after discharge and completion of treatment, laboratory tests revealed a recurrent significant increase in inflammatory markers, and the patient was readmitted. Pneumonia, endocarditis and systemic lupus were ruled out. This time, treatment with amikacin and higher steroids dosage was administered. This resulted in suboptimal improvement. After a few days, increased inflammatory markers and fever were still present, despite ongoing antibiotic therapy. Due to negative cultures, antibiotics were withdrawn, but we continued steroids and a few days later we observed a fall in inflammatory markers. Taking the whole medical history, the graft intolerance syndrome was considered. After multidisciplinary team meeting (transplant and vascular surgeons, radiologist, nephrologists/transplant physicians) decision of graftectomy was made. After the surgery, a significant clinical improvement and a further reduction in inflammatory parameters were noted. In summary, graft intolerance syndrome is difficult to diagnose and

should be taken into consideration during evaluation in patients with coexisting graft failure and ongoing inflammation with nonspecific etiology, especially considering future retransplantation. Primary graftectomy in waitlisted kidney transplant recipients might be a crucial treatment and may prevent such patients from further complications after the retransplantation.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Artur Handziuk

Title: Paget's disease of bone – an unusual cause of severe headaches due to osteolytic lesions in the scull

Abstract No. 158

Paget's disease of bone – an unusual cause of severe headaches due to osteolytic lesions in the skull Author: Artur HandziukAffiliation: Student Research Group of Rheumatology, Systemic Connective Tissue Diseases and Immunotherapy of Rheumatic Diseases, Poznan University of Medical SciencesTutor: Wiktor Schmidt MD, PhDBackgroundPaget's disease of bone (PDB) is a rare, progressive metabolic bone disease that remains asymptomatic until complications occur. Differential diagnosis comprises a spectrum of hematological, neoplastic, endocrine, and skeletal diseases. Due to the nonspecific and late symptoms, diagnosis and treatment are often delayed.Case reportA 65year-old female presented with a history of severe headaches that had occurred during the previous 6 months. Those included new-onset dull, constant headaches in occipital and parietal regions that were slightly alleviated by nonsteroidal anti-inflammatory drugs (NSAIDs). The patient had a previous history of occasional neck pains and headaches with visual disturbances, tinnitus, and balance impairment that had lasted for circa 5 years, but new symptoms differed from the previously observed ones. She had previously been consulted by a neurologist, who ordered a head computed tomography (CT), which revealed scattered osteolytic lesions with slight osteosclerotic changes in the cranial vault and referred the patient to an endocrinologist and a hematologist. Hyperparathyroidism and blood dyscrasias were ruled out, and the patient was referred to a rheumatologist. Bone scintigraphy revealed marked, increased uptake in cranial lesions, not corresponding with neoplastic disease or hyperparathyroidism. Neck X-ray revealed cervical osteoarthritis with intervertebral disc disease and slight C3/4 spondylolisthesis. Serum and urine calcium, vitamin D, and alkaline phosphatase were in the normal range. After exclusion of other bone

diseases, Paget’s disease of bone was diagnosed, and intravenous zoledronic acid was administered. Concomitantly, physiotherapy focused on the cervical spine was initiated. The new-onset headaches subsided within a week of bisphosphonate administration. During 6month observation, alleviation of neck pain and neurological symptoms was achieved, with serum alkaline phosphatase activity decreasing by over 50% from baseline.ConclusionsDue to non-specific symptoms, Paget’s disease of bone poses a challenge during the diagnostic process and can often juxtapose with other disorders occurring in the elderly. The case depicts an early diagnosis of PDB successfully treated with first-line therapy.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Kamil Mąkosza

Title: Assessment of nutritional status, quality of life and adherence to tertiary prevention in a patient with gastric cancer – a case study

Abstract No. 159

Gastrointestinal cancers, including gastric cancer (GC), have a negative impact on many dimensions of the patient's quality of life, including nutritional status and general psychomotor functioning. The priority element determining the effectiveness of therapy is to ensure the patient's proper nutritional status in order to minimize the risk of malnutrition, which can lead to many undesirable clinical conditions that exacerbate the course of the disease, such as anorexia or cachexia, or initiate tumor dissemination to distant organs. These factors can deepen the patients unfavorable quality of life, initiate a cascade of side effects, and above all significantly shorten the remaining life. Aim. Assessment of nutritional status, quality of life and adherence to tertiary prevention in a GC patient. Methods. Standarized questionnaires (Mini Nutritional Assessment (MNA), EQ-5D5L, Adherence Scale in Chronic Diseases (ASCD)) and original tools (metrics, questionnaires regarding extended assessment of diet and lifestyle as primary factors of tertiary prevention) were used.Case study. GC patient aged 61, BMI=27 kg/m2. Surgical treatment was performed, currently undergoing adjuvant chemotherapy. The patient is in average physical and mental well-being and lives alone. In addition to cancer, the patient also struggles with diabetes and hypertension, for which he takes drugs. Initially, the focus was on non-pharmacological tertiary prevention. Nutritional status by MNA showed that the patient has a risk of malnutrition (20 out of 30 points scored), which suggests the need for a detailed assessment of the diet and the use of appropriate nutritional strategies. An indepth assessment of the patient’s diet showed that: he does not follow a special diet, eats 3 meals a day, has no knowledge of whether the food he eats is nutritious, believes that the amount of food he eats every day is sufficient, does not eat food for special medical purpose or high-protein products. The patient sleeps about 7 hours a day, smokes several cigarettes a day, has excluded ethanol consumption, does not engage in physical activity and does not control his body weight. Based on EQ-5D-5L, the patient has no

problems with movement, self-care and daily activities, but he experiences moderate pain, discomfort and sadness. In terms of tertiary pharmacological prevention, ASCD indicated the patient demonstrates a high level of adherence (26 out of 28 points scored).Conclusion. Due to the possible risk of malnutrition and its complications, as well as unsatisfactory nutrition and lifestyle, the patient's treatment should be strengthened by constant support from dietician as an essential role of tertiary nutritional prevention. Moreover, due to alarming psychomotor factors, it is reasonable to monitor the patient by a physiotherapist and psychologist, which confirms the need for a mandatory comprehensive approach to the patient.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Wiktoria Jurczykowska, Kinga Chomicka, Zofia Stankiewicz, Marta Berczyńska

Title: Psychosis in Disguise: The Overlooked Impact of Hyperthyroidism

Abstract No. 161

Psychotic symptoms can arise from various psychiatric and medical conditions. Hyperthyroidism is known to contribute to mood disturbances, agitation, and even psychosis. In patients with pre-existing mood disorders, thyroid dysfunction can significantly alter the clinical presentation, complicating diagnosis, and management. Case Presentation: A 47-year-old woman was admitted to the psychiatric ward with acute psychotic symptoms. Her medical history revealed a recent trip to Niger, after which her symptoms began. She reported excessive alcohol consumption during her trip. The patient had a prior diagnosis of depression and bipolar disorder, previously managed with lithium taken at home. During hospitalization, a significantly enlarged thyroid gland was observed. Laboratory tests revealed a decreased TSH level, leading to the diagnosis of severe hyperthyroidism. Following appropriate treatment for thyrotoxicosis, her psychiatric symptoms resolved. Conclusion: This case highlights the need for a thorough medical workup in psychiatric presentations, particularly in patients with a history of mood disorders. Hyperthyroidism can mimic or exacerbate psychiatric symptoms, and its identification is crucial for appropriate management. Clinicians should remain vigilant for endocrine dysfunctions in patients with suddenonset psychosis, especially following stressors such as travel and substance use.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Agata Zięba

Title: Malignant Peritoneal Mesothelioma: Asymptomatic Mesenteric Mass in a Gynecologic Patient

Abstract No. 162

Peritoneal mesothelioma (mesothelioma peritonei) is a rare, primary malignant tumor originating from mesothelial cells of the peritoneal serous membrane. It accounts for approximately 10% of all mesothelioma cases, with a weaker correlation to asbestos exposure than pleural mesothelioma. It is more frequently diagnosed in women and younger individuals. Typically, it presents as diffuse infiltrations, less commonly as a localized tumor. Its nonspecific clinical manifestation poses a diagnostic challenge.CASE REPORTA 44-year-old female patient was admitted to the Gynecology Clinic due to recurrent heavy vaginal bleeding and abdominal pain. No history of asbestos exposure was reported. A year earlier, she had undergone uterine curettage for fibroids. During diagnostic evaluation, a total hysterectomy was performed. The uterine body was significantly enlarged (16x13x11 cm) with multiple fibroids, the largest measuring 7.5 cm. The fallopian tubes showed no significant pathology.
Intraoperatively, a mass resembling a fibroid was found in the sigmoid mesentery. Histopathology revealed malignant peritoneal mesothelioma. Immunohistochemistry confirmed mesothelial origin with calretinin, WT-1, podoplanin, and CK5/6 expression.DISCUSSIONMalignant peritoneal mesothelioma is rare and often presents with nonspecific symptoms. In this case, the tumor was asymptomatic, complicating preoperative diagnosis. The lack of asbestos exposure further obscured its etiology. Differential diagnosis includes ovarian cancer metastases and gastrointestinal stromal tumors (GIST). Treatment typically involves surgery and intraperitoneal chemotherapy. Due to its rarity, further research is needed to clarify pathogenesis and optimize management.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Agata Zięba

Title: Malignant Transformation of a Mature Ovarian Teratoma: A Rare Case of Carcinoid Tumor

Abstract No. 163

Mature teratomas (teratoma maturum) are the most common benign germ cell tumors of the ovary, primarily affecting women of reproductive age. Malignant transformation occurs in only 1–3% of cases, predominantly in postmenopausal patients. The most frequently observed transformation results in squamous cell carcinoma, while adenocarcinoma and carcinoid tumors—neuroendocrine neoplasms with low proliferative potential—are rarer. Ovarian carcinoids represent an exceptionally rare entity.CASE REPORT A 71-year-old female was admitted with left lower abdominal pain, constipation, and abnormal vaginal bleeding. Physical examination revealed a palpable abdominal mass, and ultrasonographic imaging confirmed the presence of an ovarian tumor. The patient underwent a left-sided salpingooophorectomy. Macroscopic assessment of the excised ovary (12×12×6 cm) revealed dermoid structures, including hair, sebaceous material, and epidermal components. Solid, beige-colored areas were identified within the tumor wall. Histopathological examination confirmed a mature teratoma with a carcinoid tumor component. Immunohistochemical staining demonstrated strong synaptophysin expression, verifying the neuroendocrine nature of the tumor. The patient remained asymptomatic for carcinoid syndrome.DISCUSSION Ovarian carcinoid tumors account for only 0.1% of all ovarian neoplasms and may arise from neuroendocrine cells of the gastrointestinal or respiratory tract. They predominantly occur in perimenopausal and postmenopausal women. The clinical presentation is often nonspecific, with symptoms including abdominal pain, constipation, and urinary disturbances. Although generally considered low-grade malignancies, the risk of progression correlates with tumor size and duration. The primary treatment approach remains unilateral oophorectomy. Preoperative diagnosis of mature teratomas is typically straightforward however, the presence of a carcinoid component is usually confirmed postoperatively via histopathological analysis. Comprehensive tissue sampling, particularly from solid regions of the tumor, is essential for accurate diagnosis. In this case, complete tumor excision was achieved, with no evidence of recurrence.

Session:

CR8 Internal Medicine IV

AULA 2

SAT 26.04.2025 12:30-14:30

Authors: Joanna Najbar

Title: Steps of Struggle: Diabetic Foot Syndrome Management After Transplantation

Abstract No. 164

Simultaneous pancreas-kidney transplantation is a procedure primarily performed on patients with type 1 diabetes and end-stage renal disease. Diabetic foot syndromes pose a significant clinical challenge, particularly in transplant recipients. While simultaneous pancreas-kidney transplantation can improve blood sugar control and reduce the risk of diabetes-related complications, it does not eliminate the risk of diabetic foot ulcers. Studies show that nearly one in seven patients develop new-onset diabetic foot ulcers after undergoing simultaneous pancreas-kidney transplantation, and these ulcers significantly increase the risk of graft failure. The introduction of immunosuppressive therapy, which is essential after transplantation, can impair wound healing and heighten the risk of infection.Case Report: 60-year-old male patient was admitted to the diabetic ward due to worsening pain in the left foot, resulting from diabetic foot syndrome. Physical examination revealed swelling, erythema, and purulent discharge. The wound was cleaned, the limb was offloaded, and VacuumAssisted Closure/Negative Pressure Wound Therapy (VAC/NPWT) was applied. However, the pain persisted, and the patient reported increased tension, pain, and discomfort around the wound. Laboratory tests showed a decreased glomerular filtration rate and elevated levels of uric acid, creatinine, and leukocytes. The patient had undergone simultaneous pancreas-kidney transplantation 1.5 years earlier without complications. Additionally, the patient reported a history of opioid abuse, which, combined with limited kidney function, significantly restricted the available analgesic options.Discussion and Conclusions: Managing diabetic foot syndrome in postsimultaneous pancreas-kidney transplant patients requires a multidisciplinary approach. Immunosuppressive therapy increases the risk of infection, making patients with preexisting diabetic foot syndrome more vulnerable to complications, including cardiovascular issues. Pain management is challenging due to limited options in patients with chronic kidney disease, with lipophilic opioids such as methadone, fentanyl, and buprenorphine being preferred. Recently FDAapproved Journavx (suzetrigine) offers a non-

addictive alternative, but further research is needed to evaluate its effectiveness in treating chronic neuropathic pain in diabetic transplant recipients.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Aleksandra Lewczak, Mateusz Malinowski

Title: Minimizing surgical risks in giant thyroid goitre: the role of neuromonitoring and precision visualization tools

Abstract No. 165

Giant thyroid goitres, though uncommon, present a notable surgical challenge due to significant alterations in neck anatomy, complicating both intubation and the protection of key structures like the recurrent laryngeal nerve and parathyroid glands. Giant goitres account for 5-15% of thyroid nodular disease cases, and their size does not always correlate with symptom severity. This case report showcases successful surgical management by incorporating advanced monitoring techniques. Case presentation. A 55-year-old male with a giant thyroid goitre, present since childhood and having rapidly enlarged over the past four years, sought medical attention for breathing difficulties and a reduced quality of life. The goitre's large dimensions (Lobe I: 8.5x5.5x5 cm Lobe II: 11.5x10.5x8 cm) caused significant tracheal displacement, luminal narrowing, and compression in the cervical region, leading to concerns about challenging intubation. Preoperative imaging confirmed these anatomical distortions, prompting a collaboration between the surgical and anaesthetic teams. A total thyroidectomy was planned, utilizing video laryngoscopy and an intubation guide to manage the anatomical complexities. Intraoperative neuromonitoring of the recurrent laryngeal and vagus nerves, combined with the use of surgical loupes, allowed for improved visualization and precision. The surgery was completed without any complications, and the patient was discharged in stable condition, free from hoarseness or other functional deficits.Conclusions.Performing a total thyroidectomy on giant goitres can be safe and effective when meticulous planning and precision techniques are employed. The use of intraoperative neuromonitoring and enhanced visualization with surgical loupes minimizes risks of complications, such as nerve damage and hypocalcemia, improves surgical outcomes, and highlights the importance of incorporating modern technologies in endocrine surgery. This case underscores the value of advanced tools in addressing complex surgical challenges effectively.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Patrycja Puciato , Furkan Ates , Kiara Sequiera

Title: Massive Multinodular Goiter with Tracheal Compression and Intraoperative Injury

Abstract No. 166

The term refers to any abnormal thyroid growth, which may be diffuse or nodular. Toxic multinodular goiter (MNG) is a common cause of hyperthyroidism, particularly in individuals over 50 years of age. Diagnosis is based on the physical examination. Thyroid function test results are usually normal, or indicate subclinical or overt hyperthyroidism. Indications for treatment in patients with MNG include hyperthyroidism, symptoms due to compression, cosmesis, and concern about malignancy based on fine needle aspiration (FNA) results. However, when it causes compressive symptoms such as dyspnea, surgical intervention is almost always the treatment choice. Here, we present a case of a massive multinodular goiter causing significant compression symptoms and discuss its surgical management. We report a case of a 62 year old male with a multinodular goiter that had been progressively enlarging over the past five years. On admission, he exhibited thyrotoxicosis, characterised by tachycardia and persistent hypertension unresponsive to pharmacological treatment. The goiter caused a mass effect, leading to tracheal compression and recurrent laryngeal nerve involvement, resulting in dyspnea and hoarseness. Computed tomography (CT) of the neck revealed a significantly enlarged, nodular thyroid gland, with the right lobe measuring approximately 84 × 91 × 139 mm and the left lobe approximately 99 × 106 × 120 mm. The patient was scheduled for a total thyroidectomy with regional lymph node dissection. Intraoperatively, a tracheal injury occurred, necessitating suturing, with neuromonitoring utilised. The postoperative course was uneventful, and the patient was discharged in good condition.The standard treatment option for MNG with symptoms of compression is surgery, as it allows for a rapid and effective resolution of this compression which if left untreated can cause life threatening complications such as acute respiratory insufficiency. Despite intra-operative challenges, including tracheal injury, prompt surgical intervention with total thyroidectomy and neuromonitoring ensured a successful outcome. This case highlights the importance of early diagnosis,

careful surgical planning, and perioperative monitoring to optimise patient outcomes in similar high-risk cases.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Darijus Astrauskas, Roberta Magilevičiūtė, Justė Ramonaitė, Deimantas Masaitis

Title: Surgical Management of High-Energy Pelvic Fractures via Multilevel Osteosynthesis: A Case Report

Abstract No. 167

Pelvic fractures account for 3–8% of skeletal injuries, often due to high-energy trauma. Timely surgical stabilization and multidisciplinary rehabilitation mitigate misalignment and post-traumatic arthritis. Fluoroscopic guidance ensures minimally invasive osteosynthesis, precise screw placement and pelvic ring stability. This report details 62year-old male polytrauma patient with multilevel pelvic fractures management, emphasizing fluoroscopicguided osteosynthesis and postoperative protocols. Case report. A 62-year-old male sustained pelvic fractures after falling from the second floor. CT confirmed right sacral lateral mass, acetabular, left superior, and bilateral ischial fractures. Open pelvic fracture repositioning with internal fixation of the anterior and posterior segments were performed under fluoroscopic control. Using inlet and Judet projections, K-wires guided two 6.5 mm fully threaded cannulated screws from the acetabular rim to the ischial ramus, and from the ischial ramus to the superior acetabular rim. Sacral fractures were guided and fixed with 7.3 mm cannulated screws in S1-S2. Postoperative imaging showed successful fixation of right sacral lateral mass fracture, right acetabular fracture, bilateral left ischial fractures, and right inferior ischial fracture, alongside preserved hip joint congruity and stable screw positioning. The patient followed an 8-week non-weight-bearing regimen and physiotherapy.Discussion. This case underscores the efficacy of minimally invasive osteosynthesis in high-energy fractures. The non-weight-bearing protocol prevented hardware displacement, while early joint mobilization reduced stiffness and thromboembolic risks. Multidisciplinary collaboration between orthopedics, radiology, and physiotherapy ensured holistic recovery, aligning with damage-control orthopedics principles. Conclusion. Multilevel osteosynthesis with fluoroscopic guidance and structured rehabilitation is pivotal in managing complex pelvic fractures. This approach restores biomechanical integrity, reduces complications, and enhances functional outcomes. The

case highlights the importance of timely surgical intervention, adherence to modern fixation techniques, and multidisciplinary care in polytrauma patients.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Patrycja Zabrocka, Aleksandra Giba

Title: Meningioma with pulmonary metastasis in a 54-year-old patient- case report

Abstract No. 168

Meningioma is the most frequently occurring benign intracranial tumor however, in rare cases, it can exhibit malignant characteristics, including metastatic spread.
Extracranial metastases from meningiomas are exceedingly uncommon, affecting fewer than 1% of patients. Due to their rarity, limited data exist to assist clinicians in evaluating the metastatic potential of meningiomas. This case report aims to present an unusual instance of metastatic meningioma, highlighting the diagnostic and therapeutic challenges associated with this rare phenomenon.Case Report:We present the case of a 54-year-old female patient with a history of meningioma and lung metastases. The patient initially underwent surgical resection of a left frontal meningioma in 2016. A recurrence was detected in 2020 in the left orbital region, necessitating an additional surgical intervention. In 2022, follow-up imaging revealed pulmonary lesions in the middle and lower lobes. Histopathological analysis of a lung biopsy confirmed these lesions as metastatic meningioma. By April 2024, the patient presented to the Department of Neurosurgery with progressive meningioma involvement of the skull base, maxillary sinus, frontal sinus, and nasal cavity, along with erosion of the medial wall of the left orbit. She reported headaches, dizziness, and worsening vision in her left eye. Physical examination revealed left-sided exophthalmos and sensory impairment in the left frontal-maxillary region. Due to her progressive visual deterioration, an endoscopic surgical procedure using a transnasal approach was planned.Conclusions:Metastatic meningiomas are extremely rare and often underrecognized in neurosurgical practice. This case underscores the importance of considering metastatic spread in patients with atypical or anaplastic meningiomas, particularly when new pulmonary lesions emerge. Early detection and accurate differentiation from primary lung malignancies or other metastases are critical for optimal management. Further research is essential to elucidate the mechanisms underlying meningioma metastases and improve treatment strategies for affected patients.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Kaitlyn Kiggen, Emma Kate Bateman, Sinéad Mythen

Title: 'An Unexpected Diagnosis of Anaplastic Thyroid Cancer: A Surgical Case Report'

Abstract No. 169

Today, anaplastic thyroid carcinoma (ATC) is the rarest, but most aggressive and advanced type of thyroid cancer with the poorest prognosis. It most commonly occurs in people over the age of 60 years. This case shows the diagnostic challenges of ATC, and the importance of early oncologic and palliative care planning in such patients. Clinical Case:A 61-year-old male patient with a history of diabetes mellitus type 2 and hypertension was admitted to the department for a thyroidectomy due to an initial suspicion of papillary thyroid carcinoma, following symptoms of dysphonia and rightsided ear pain in November 2024. During the surgery, a hard, infiltrative tumor in the right lobe was revealed, and an intraoperative histopathological examination confirmed poorly differentiated ATC, upon which the procedure was abandoned. The patient was subsequently discharged with referrals to the National Institute of Oncology, as well as the Endocrinology, Oncology, Palliative Medicine, and Pain Management Clinics for multidisciplinary oncology care.Conclusion:This case highlights the aggressive nature of ATC and the potential for misdiagnosis as a less aggressive thyroid cancer preoperatively. With its unfavorable prognosis, immediate oncologic therapy, palliative care planning, and symptom management are essential in optimizing patient outcomes and quality of life.

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Patrycja Zabrocka, Aleksandra Giba

Title: Minimal invasive trans-eyelid approach to a sphenoid wing meningioma - a case report

Abstract No. 170

Meningioma is the most prevalent benign intracranial tumor, constituting about onethird of all primary brain and central nervous system neoplasms. It occurs more frequently in women, with a 2:1 female-to-male ratio, and typically arises in the fourth decade of life. Since most meningiomas are benign, the 5-year survival rate exceeds 90%. When symptomatic, surgical resection is the preferred treatment, with modern medicine increasingly favoring minimally invasive techniques. One such approach is the trans-eyelid approach, which is especially advantageous for older patients. This method offers excellent outcomes for lesions not only in the anterior cranial fossa and sellar region but also in the middle cranial fossa, particularly near the sphenoidal wings within a 2 cm range, as well as in the spheno-orbital region.Case Report:A 71-year-old patient with a history of cardiac arrest and myocardial infarction was admitted to the Department of Neurosurgery at the Medical University of Białystok. The patient was diagnosed with a right-sided sphenoid wing tumor, identified as a meningioma. The lesion was detected during an evaluation for symptoms consistent with hemiparesis of transient ischemic attack (TIA) nature in the Neurology Department. Due to the lesion's location, the patient’s age, and significant cardiac history, surgery was planned using a minimally invasive transorbital approach. The postoperative recovery was uncomplicated, with the patient remaining in good condition and the surgical wound on the eyelid healing without signs of infection. Follow-up imaging confirmed the absence of the need for further surgical intervention, and the patient was discharged in stable general, local, and neurological condition.Conclusions:The trans-eyelid approach is a safe and minimally invasive technique that provides effective access for resecting tumors in difficult-to-reach regions of the skull base. This method reduces the risk of complications commonly associated with more invasive procedures and ensures a favorable cosmetic outcome. The approach’s ability to preserve functional integrity while minimizing postoperative scarring makes it a valuable option, especially for older patients

or those with comorbid conditions, as it offers both functional and aesthetic benefits in the management of cranial base tumors.

Book of Abstracts

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Karolina Sujka

Title: Soft tissue sarcoma in a 29-year-old patient - case report

Abstract No. 171

Sarcomas are a relatively rare and varied heterogeneous group of mesenchymal neoplasms. Generally, they can be divided into 2 categories: primary bone sarcomas or soft tissue sarcomas. The latter cause problems for oncologists because of their character, rare occurrence or difficulty in predicting outcome. Myosarcomas belong to soft tissue sarcomas. Further classification of them is based on clinicopathologic features and genetic examination findings. Case report: The 29-year-old woman was admitted to the Department of Neurosurgery with the diagnosis of paraspinal high-grade myosarcoma. The lesion was on the Th2/Th3 level and infiltrated paraspinal muscles and pleura. The tumor involved the bone structures and protruded into the spinal canal through the neural foramen. Initially, the patient complained of back pain at night. She sought help from a physiotherapist and took analgesics. The primary MR examination revealed an above mentioned tumor. The biopsy of the tumor was performed and a histological examination showed that it was myosarcoma. She was disqualified from surgical treatment in the local center due to difficult localization and high grade of advancement. The patient was referred to palliative radiotherapy and chemotherapy. After performing the first cycle of treatment, she was reffered to the Department of Neurosurgery in Lodz for surgical resection with the use of a neuronavigation system. The right-sided costotransversectomy was performed. During the operation, it was proved that the root of Th2 was inwrought in the tumor, so the decision was made to strangulate and section it. Further, a corpectomy of Th2 and Th3 vertebrae was performed. The lesion was completely removed from the vertebrae but only partially from the pleura due to infiltration and adhesions in this area. The patient was discharged from the hospital eight days after the surgery and she was supplied with analgesics due to her back pain. Then she underwent an additional cycle of chemotherapy and on the control CT, she was lesionfree. On the four-month follow up she reported paresthesia on the right side of the body. Conclusion: The progress in imaging technologies, improvement of surgical methods and development of adjunctive treatment improved the care of patients with sarcomas. Diagnostics should pay attention to important

prognostic variables – grade, size, histologic subtype, stage and location of the primary lesion. Further treatment depends on the type of sarcoma. The location of the described tumor was problematic due to the risk of damaging blood vessels supplying the spinal cord thus leading to vascular spinal cord injury.

Book of Abstracts

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Roberta Magilevičiūtė, Roberta Magilevičiūtė, Darijus Astrauskas, Povilas Ignatavičius, Tomas Vanagas

Title: Liver transplantation with vena cava replacement for advanced alveolar echinococcosis: a case report

Abstract No. 172

Alveolar echinococcosis, caused by Echinococcus multilocularis, is a highly aggressive form of echinococcosis that behaves like a slowly growing malignant tumor. Radical surgical resection combined with antihelminthic therapy is the first-line treatment for this disease. However, due to the parasite's insidious growth, delayed diagnosis and involvement of major vessels, some cases become unresectable. In these cases, a multidisciplinary approach is essential and liver transplantation remains the only lifesaving option.Case report:A 31-year-old man presented with symptoms of dark urine, fatigue, and generalized weakness. An abdominal CT scan revealed hepatomegaly with a 12 × 10 cm mass in the right lobe and infiltration into the inferior vena cava. Based on these findings and additional tests, the patient was diagnosed with alveolar echinococcosis. Due to the advanced stage of the disease and vascular involvement, the lesion was unresectable. After careful evaluation, a multidisciplinary team decided that liver transplantation was the only possible treatment option. Once a suitable organ donor was found, the patient underwent liver transplantation. The exact extent of the inferior vena cava infiltration was only fully identified during the surgery. The surgical procedure was highly complex, requiring not only the removal of the parasite affected liver but also the resection of infiltrated portion of the inferior vena cava and part of the diaphragm. The surgical team performed an end-to-end anastomosis between the recipient’s and the donor’s inferior vena cava, followed by the implantation of the donor liver. The patient was treated with albendazole both before and after the surgery. The procedure was successfully completed without complications, and the patient’s postoperative recovery was smooth.Conclusion:This case represents the first liver transplantation for alveolar echinococcosis in the country, highlighting the importance of multidisciplinary collaboration and advanced surgical techniques in the management of complex hepatic parasitic diseases.

Book of Abstracts

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Jakub Łomzik, Wiktoria Urszula Kozłowska, Patrycja Oliwia Lipska

Title: Challenges in Diagnosing and Treating Double Parathyroid Adenomas: A Case Report

Abstract No. 173

A parathyroid adenoma is a benign tumor of the parathyroid gland that causes excessive secretion of parathyroid hormone (PTH), leading to primary hyperparathyroidism (PHPT). The consequence of this condition is an increased concentration of calcium in the blood serum and urine, which is associated with skeletal, renal, neuromuscular, gastrointestinal, and cardiovascular symptoms. In 2% to 11% of patients with PHPT, the cause of the disease is the occurrence of double parathyroid adenomas. Diagnosis is challenging as imaging studies frequently do not reveal both adenomas, which may result in a single surgery being insufficient for disease cure. Case report A-71-year-old woman with a history of hypertension, chronic kidney disease, cardiac arrhythmias, osteopenia, dermatofibrosarcoma protuberans, and after undergoing strumectomy was admitted to the Department of General and Endocrine Surgery for a left inferior parathyroid adenomectomy. The patient complained of weakness, bone pain, polyuria, and polydipsia, persisting for several years. Two years before admission, routine tests revealed an elevated calcium (2,61 mmol/l) and PTH (186 pg/ml) levels in the blood. Due to clinical presentation, the patient was referred to the Endocrinology Department for further diagnostics. Laboratory tests showed a further increase in calcium (3,06 mmol/l) and PTH (238 pg/ml) levels, and normal vitamin D3. In the scintigraphy performed using MIBI-99mTc and SPECT-CT revealed increased radiopharmaceutical uptake at the lower pole of the left thyroid lobe, indicating the presence of a parathyroid adenoma. Given the results, a decision was made to surgically remove the parathyroid gland. During the procedure, a parathyroid adenoma measuring 2x1,5 cm was removed, later confirmed in the histopathological examination. An intraoperative PTH was performed, revealing a decrease compared to the preoperative level (272 to 171 pg/ml), although it remained elevated. Therefore, further diagnostics for PHPT were conducted. Scintigraphy revealed an area of increased MIBI-99mTc uptake posterior to

the upper pole of the right thyroid lobe, suggesting a second parathyroid adenoma. The patient underwent reoperation with right inferior parathyroidectomy. Postoperatively, PTH (217 to 4 pg/ml) and calcium (2,80 to 2,19 mmol/l) levels dropped below the normal range, achieving disease remission. Conclusion This case report highlights the importance of considering double parathyroid adenomas in the treatment of PHPT, despite their rare occurrence. In imaging studies such as thyroid ultrasound or scintigraphy, only a single adenoma may be visualized. In such cases, intraoperative PTH measurement is a crucial test that indicates the potential presence of an additional tumor. Treatment involves intraoperative evaluation with bilateral neck exploration for immediate removal of the second adenoma or reoperation after precise localization through imaging studies.

Book of Abstracts

Authors: Izabela Majewska, Kamila Koszykowska

Title: Can a collision with a moose save a life? Diagnosis and treatment of an adrenal tumor

Abstract No. 174

Incidentaloma is a nodular lesion visualized in the adrenal gland in imaging studies performed for other reasons. The most common adrenal tumors are hormonally inactive adenomas 80%, about 5% of incidentalomas are adrenal cortex tumors giving the image of Cushing's syndrome, another 5% are phaeochromocytomas. Although most adrenal tumors are benign, malignant changes can also occur. Evaluation for pheochromocytoma and hypercortisolism is recommended for all patients with adrenal incidentaloma, independent of their clinical picture and any existing comorbidities. Testing for primary hyperaldosteronism is indicated in patients exhibiting hypertension or hypokalemia. Case report The medical case concerns a 59-year-old man who was admitted to the emergency department after a road accident - a collision with a moose while riding a bicycle. During the post-traumatic CT scan, a right adrenal tumor was accidentally detected. The patient with a history of arterial hypertension, liver cirrhosis and 40 pack-years, was referred to the endocrinology department for hormonal diagnostics of incidentaloma. In CT, a nodular hypodense lesion with calcifications measuring 71x62x70 mm and 20-30 HU density, enhancing heterogeneously after intravenous administration of a contrast agent - suspected pheochromocytoma. In MRI, it was found that the tumor models the liver, without infiltration and briefly adheres to the upper pole of the right kidney. Additionally, a nodule corresponding to an adenoma was visualized in the left adrenal gland. The performed hormonal diagnostics showed a preserved circadian rhythm of cortisol secretion and normal cortisol excretion in 24hour urine collection and increased testosterone concentration. Based on the entire clinical and radiological picture, the patient was was deemed a suitable candidate for laparoscopic surgery. During the procedure, an injury to the inferior vena cava occurred due to inadvertent puncture. This necessitated conversion to an open laparotomy. Following control of the hemorrhage, a right adrenalectomy and repair of the inferior vena cava were performed. The patient was discharged home in good condition after 4 days. Conclusions Incidentalomas are now detected more often due to the widespread and greater sensitivity of ultrasound, CT and MRI examinations used in diagnostics. It is worth remembering that although most detected tumors are benign, malignant tumors also occur. Symptoms depend on the amount of hormones secreted by the tumor and include both silent forms and those with high arterial hypertension in its course. This case shows us that sometimes a random incident can lead to the discovery of a tumor. Thousands of accidents occur every year, and dozens of people die because of incidents involving moose. So we can

ask ourselves whether this time the moose has atoned for its sins and this time - exceptionally - saved someones life?

Book of Abstracts

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Oskar Makuch

Title: Treatment of blunt eye injuries: crucial steps for successful outcomes – case report

Abstract No. 175

Eye injuries are one of the most common reasons for seeking medical attention at the emergency room or urgent care. Blunt trauma to the eye globe presents a significant ophthalmologic issue, leading to severe vision impairment. Men are more prone, with individuals aged 25-49 being at the highest risk.Case report: Male patient presented with blunt trauma to the left eye globe, reporting pain and vision deterioration. His medical history included cataract surgery on both eyes 1.5 years ago. Ophthalmologic examination revealed a conjunctival laceration, dislocation of the intraocular lens (IOL) with displacement into the anterior chamber, corneal erosion, vitreous body fragments in the lower part of the chamber, and an irregular pupil in the left eye. The right eye showed traumatic mydriasis, a moderately dilated pupil, and a normal optic disc.A scleral fixation procedure with anterior vitrectomy was performed on the left eye. After surgery, the patient was mobilized early and received treatment as per the medical plan. During follow-up after hospitalization, the IOL in the left eye was in proper position, the aqueous humor was clear, and the cornea was smooth. The optic disc showed papillary appearance, and the retina had normal thickness. In the right eye, there was iris atony and traumatic mydriasis. A vitrectomy of the right eye was recommended, but the patient failed to attend the scheduled procedure and lost contact with the healthcare facility.Conclusion: In cases of blunt trauma to the eye globe, prompt surgical intervention, such as scleral fixation, is crucial. These procedures aim to stabilize the structural integrity of the eye, prevent further damage, and minimize the risk of complications such as secondary glaucoma or retinal detachment. Early intervention allows for more effective treatment and improves the patient’s prognosis.

Book of Abstracts

Session:

CR9 Surgery II

AULA 3

SAT 26.04.2025 12:30-14:30

Authors: Paulina Lewandowska

Title: From Successful Transplant to Critical Thrombocytopenia: A Rare Case of PTP

Abstract No. 176

Post-transfusion purpura (PTP) is a rare and potentially life-threatening complication of blood transfusion or organ transplantation. It is characterized by severe thrombocytopenia occurring 5–10 days post-exposure to alloantigens, with an incidence of approximately 1 in 50,000–100,000 transfusions. PTP results from alloantibodies targeting platelet-specific antigens, typically HPA-1a, leading to the destruction of transfused and autologous platelets. Early recognition and treatment are essential to prevent fatal outcomes. Case ReportWe present the case of a 57-year-old man with end-stage kidney disease secondary to IgA nephropathy which over a decade progressed to focal segmental glomerulosclerosis. He underwent a deceased donor kidney transplant in October 2024, following years of hemodialysis. Postoperatively, he developed complications including ureter necrosis requiring graft nephrectomy, sepsis, and pancytopenia. Despite platelet transfusions, his platelet count declined from 160,000/µL to <20,000/µL within five days, accompanied by purpura on his extremities.Extensive investigations ruled out pseudo-thrombocytopenia, disseminated intravascular coagulation, bone marrow suppression, drug-induced thrombocytopenia, heparin-induced thrombocytopenia (which was deemed unlikely as the patient had not received heparin during his treatment), and other immune-mediated conditions. Detection of anti-HLA class I antibodies confirmed the diagnosis of posttransfusion purpura. Treatment included plasmapheresis (4L FFP) and intravenous immunoglobulin (IVIG) at 0.5 g/kg for three days, resulting in a significant platelet count recovery. The patient's condition gradually improved with continued supportive care, including antibiotic therapy, renal replacement therapy, and rehabilitation.ConclusionsPTP is a rare but serious complication that poses diagnostic challenges, particularly in critically ill patients. This case underscores the importance of a systematic approach to thrombocytopenia in ICU settings, integrating clinical, laboratory, and immunological findings. Early recognition and multidisciplinary management, including hematology consultation, are crucial for optimizing outcomes. Further research is needed to refine diagnostic and therapeutic strategies for PTP, particularly in transplant populations.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Wiktor Terlecki

Title: Simultaneous multiple hernia repair and peritoneal catheter insertion – hitting at least three birds with one stone

Abstract No. 177

Polycystic kidney disease (PKD) is a common genetic disorder, with occurrence of approximately 1 in 1000 live births. The severity of the disease varies greatly depending on the specific genetic defects present, the specific mechanisms are varied too. Diagnosis is based mostly on the presence of the kidney cysts, which cause organ damage, eventually leading to end-stage kidney disease (ESKD), requiring dialysis or kidney transplantation. Abdominal wall hernia is notably found in approximately 40% of adult patients with PKD. The hernia is, when present, a relative contraindication for peritoneal dialysis, which in turn is preferred by most patients due to increased quality of life compared to hemodialysis. Therefore, hernia repair is crucial before preparing the patient for peritoneal dialysis.A 68 year old woman with PKD, requiring kidney replacement treatment, was diagnosed with periumbilical and inguinal hernia, and referred to the Department of General and Endocrine Surgery for treatment. As the planned procedure was approaching, her kidney state deteriorated further and the need for dialysis turned urgent. She was admitted to the hospital for a complex surgery involving multiple hernia repair and peritoneal catheter insertion. The procedure was conducted under general anesthesia. During the open repair of what had been diagnosed as large periumbilical hernia, thorough assessment revealed at least two smaller hernias neighboring the large directly. The large direct inguinal hernia was likewise repaired with open technique. Mesh reinforcement was used on all the repaired hernia sites. Further, catheter was inserted into the peritoneal cavity. The patient is recovering after the surgery with no apparent complications so far.To our knowledge, this is the first such procedure worldwide, wherein multiple periumbilical hernia and direct inguinal hernia were fixed simultaneously with peritoneal catheter insertion. What makes this case especially unique is that both the hernias and the kidney failure were associated with PKD, and the patient was female, which normally is associated with significantly lower

risk of both PKD and (direct) inguinal hernia. In cases like this, a single complex procedure is nevertheless associated with lower risk than multiple surgeries, and leads to overall faster recovery and better prognosis. It should certainly be applied whenever it can mitigate the contraindications for peritoneal dialysis, which otherwise is optimal for most patients' quality of life.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Tanishka Kaul

Title: Extensive Fournier's gangrene as a result of perineal trauma - a case report

Abstract No. 179

Fournier gangrene is a very rare but potentially life-threatening necrotizing fasciitis of the perineum and genital area, which often results from a mixed infection of several organisms. Prompt diagnosis and aggressive therapy are the most important to enhance outcome, but often there is delay in presentation, significantly enhancing morbidity and mortality.Material and MethodsA 65-year-old male had a massive scrotal hematoma for a week. He was referred to the emergency department without pain but with progressive scrotal swelling. The patient abuses alcohol daily.The patient was admitted to the urology department with a suspected Fournier's gangrene and underwent an urgent scrotal revision. Physical examination showed necrotic tissue in the scrotal and perineal regions, with prodromal signs of septic shock. Conservative treatment and empirical broad-spectrum antibiotic therapy were initiated. During surgery, extensive necrosis of skin and subcutaneous tissues was excised. In the postoperative period, his condition deteriorated and he was transferred to the Intensive Care Unit for further management. The patient was admitted to the ICU in critical condition following extensive surgical debridement. He showed symptoms of septic shock, respiratory failure that required mechanical ventilation, and circulatory collapse managed with the use of vasopressors. Laboratory findings include acute renal failure, coagulopathy, anemia and significant systemic inflammation. Treatment included fluid resuscitation, analgesia, sedation and empirical broad spectrum antibiotic therapy. Cultures were done and confirmed presence of Klebsiella pneumoniae sensitive to above antibiotics. Surgical wound care and necrotic tissue removal was performed on a regular basis. After a few days the patient had been extubated, showing gradual improvement despite transient episodes of delirium that were effectively pharmacological treated.
Stabilization of the patient's condition allowed him to be transferred back to the Urology Department for the purpose of continuing treatment.After further conservative treatment the patient was sent to the Plastic Surgery Outpatient Clinic for skin grafting. After successful graft

transplantation, the patient was referred to the Urology Department for rehabilitation, including his wound care. His clinical condition was stabilized, and he was then discharged in good condition with recommendations for further care.The patient was then admitted to the Urology Clinic again after skin graft transplantation for further care of the wound and rehabilitation. Dressing and antibiotic therapy with carbapenem were started. ResultsThe patient had a clean, well-granulating wound and improved mobility. The patient was discharged home in good condition, after another five days.ConclusionThis case underlines the critical importance of early recognition, multidisciplinary management, and comprehensive postoperative care in Fournier's gan

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Katarzyna Krysińska

Title: Large arteriovenous malformation of right kidney with inferior vena cava malformation – a long-term treatment challenge

Abstract No. 180

Arteriovenous malformations are relatively rare conditions with estimated incidence <1% in general population, sometimes severely decreasing quality of patients' lives.Each case presents its unique challenges in formulating successful (long term) treatment plan.This case presents 29-year-old female referred to the vascular surgery clinic from other center due to unsuccessful treatment of right kidney arteriovenous malformation (mf) coexisting with dilation of inferior vena cava. The patient had 9 embolization procedures and partial excision of right kidney malformation. She alsosuffered from pulmonary embolism in 2022 and 2 episodes of preeclampsia. The treatment plan was divided to several key steps: embolization of the inflow outflow vessels of kidney malformation, excision of the right kidney mf endovascular reconstruction of IVC with the use of venous stents and embolization of malformation remnants.The partial embolization of mf was achieved with use of EASYX material, resulting in significant reduction in dynamics of blood flow. During second embolization with the use of EASYX it was necessary to stent both common iliac arteries due to migration of part of the same material. Complex embolization facilitated excision of the right kidney malformation. The surgery was successful, however resulted in reoperation due to post operation bleeding and hematoma formation. Before the next stage of treatment, a temporary vena cava filter was implanted to decrease the risk of pulmonary embolization. The IVC was reconstructed with the use of double barrel method: parallel implantation of venous stents and relining of stents on both sides with use of WALLSTENTs to increase the density of stent mesh. It resulted in thrombosis of saccular part of IVC and correct blood flow through theimplanted stents. During final procedure the embolization of mf remnants through right internal andexternal iliac artery was performed. In control imaging there were no large vessels supplying malformation visible, only supply remains via small vessels with nopossibility of catheterization due to size. Large arteriovenous malformations present

significant risk of bleeding and require multi step approach with meticulous planning with use of various materials in order to provide satisfactory outcome for the patient.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Marta Berczyńska, Piotr Kęsicki, Zofia Stankiewicz, Wiktoria Jurczykowska, Kinga Chomicka, Agata Pieńkos

Title: Case Report: Successful Surgical Intervention in a Complex Ankle Fracture in an 12YearOld Patient Using Osteotomy and Orthex Device

Abstract No. 182

Joint injuries that are not adequately treated or are neglected for extended periods can lead to severe complications, often much more complex than the initial injury. Many seemingly minor, untreated, or improperly managed injuries, particularly in weightbearing joints like the ankle, may eventually result in permanent structural changes such as deformities, joint instability, or even arthritis. Undiagnosed or mismanaged soft tissue, ligament, or bone damage can give rise to chronic issues, necessitating more radical interventions, including surgical procedures. These cases often require surgical treatment to restore joint function and improve the patient&s quality of life, highlighting the importance of early diagnosis and proper medical management in the treatment of joint injuries. Case Presentation: A 12yearold patient presented for orthopedic consultation 5 years after a sprain injury to the right ankle. A CT scan revealed deformity of the distal tibial epiphysis. Further investigation of limb axis revealed the presence of a valgus deformity in the patient. The patient was qualified for osteotomy, during which a 2 cm bone fragment was resected, and an Orthex device was applied to the right leg.
The procedure included two additional resections of the tibia at two locations. Postoperatively, significant improvement was noted in the radiological findings. Followup visits demonstrated a gradual recovery, consistent with the recommended treatment plan. After 8 months, the Orthex device was removed.Conclusions: Complicated ankle joint injuries leading to deformity of the distal tibial epiphysis require advanced therapeutic methods to correct the damage and restore joint function. The use of osteotomy with bone fragment resection and the Orthex device proved to be an effective treatment method, resulting in significant improvement in both radiological outcomes and joint function. The

therapeutic effects observed during follow-up visits highlight the high quality of results, significantly impacting the patient's quality of life. This approach offers satisfactory longterm outcomes in the treatment of complicated ankle injuries, contributing to full rehabilitation and a return to physical activity.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Joanna Najbar

Title: Diagnostic Pathways and Surgical Management of Pediatric Parotid Gland Tumors: A Case Report

Abstract No. 184

Salivary gland tumors in children require precise imaging diagnostics, with the choice of methods depending on the location and characteristics of the lesion. Ultrasonography (USG) is the first-choice diagnostic tool due to its accessibility and lack of radiation exposure. It is highly effective, with a 66% accuracy in diagnosing mixed tumors, 100% effectiveness in detecting vascular malformations, and 80-87% accuracy in distinguishing between benign and malignant tumors, particularly for lesions larger than 1 cm. We describe a rare case of a 15-year-old female patient with a salivary gland tumor in the right parotid gland, initially presenting as an asymptomatic massCase Report: Our patient was admitted to the pediatric surgery ward for a scheduled biopsy of a tumor located in the right parotid gland region. The mass had been present since the patient was 5 years old but had remained asymptomatic. MRI scans revealed a cyst near the right mandibular angle, containing high-protein fluid and adjacent enhancing tissue, suggesting the possibility of a branchial cyst. The mass had shown gradual growth over the past two years. A non-radical surgical procedure was performed, and histopathological samples were collected. The analysis revealed a neoplasm with diverse architecture, displaying nuclei with mild atypia and eosinophilic secretion within the glandular lumens. No cancer cells were detected in the lymphatic vessels, and there was no evidence of necrosis. Molecular analysis using FISH indicated a break in the MAML2 gene. The final diagnosis was established as a right-sided mucinous carcinoma of the parotid gland, grade G2, with oncocytic metaplasia. A decision was made to expand the surgical procedure.Conclusion: Salivary gland tumors are rare in the pediatric population, and as such, there are no standardized diagnostic and treatment protocols for children. Accurate diagnosis is essential for effective treatment.For deep-seated tumors or cases where USG results are ambiguous, further imaging with CT or MRI is

required. A definitive diagnosis of tumors necessitates histopathological examination. Oncologists and pediatric surgeons typically adhere to adult guidelines, which primarily recommend complete surgical resection with appropriate margins.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Roberta Magilevičiūtė, Roberta Magilevičiūtė, Darijus Astrauskas, Margarita Montrimaitė, Rūta Čiurlienė

Title: Metastatic high-risk gestational trophoblastic disease in early pregnancy: a case report

Abstract No. 185

Gestational trophoblastic disease (GTD) refers to a group of pregnancy-related disorders characterized by abnormal proliferation of trophoblastic tissue. These conditions range from premalignant hydatidiform moles to malignant gestational trophoblastic neoplasia (GTN), such as invasive mole, choriocarcinoma, placental site trophoblastic tumor and epithelioid trophoblastic tumor. GTD is often suspected in early pregnancy when patients present with abnormal vaginal bleeding, an unusually high β-hCG levels, and characteristic ultrasound findings. The diagnosis is confirmed by histological examination of uterine cavity tissues. βhCG is an excellent biomarker of disease progression, response, and for post-treatment surveillance. The risk and stage are determined according to the International Federation of Gynecology and Obstetrics (FIGO) criteria and play a key role in determining the appropriate treatment approach. Gestational trophoblastic neoplasia is usually treated with chemotherapy and has excellent cure rates of 90–100% for stage II and III disease, and 60–70% for stage IV cases.Case:A 35-year-old female presented with abdominal pain and vaginal bleeding during early pregnancy. Ultrasound examination confirmed a gestational age of approximately 5–6 weeks and GTD was suspected based on clinical presentation and ultrasound findings. A suction evacuation of the uterus was performed, and histological analysis confirmed malignant gestational trophoblastic disease. During a follow-up ultrasound, the uterine cavity was dilated to 2,2cm, with visible blood clots. Both ovaries appeared polycystic. At the time of diagnosis, her serum β-hCG level was elevated to 1000000 IU/L and decreased to 697932 IU/L after uterine evacuation procedure. To assess the extent of the disease, computed tomography (CT) scans of the pelvis, abdomen, chest, and brain were performed, revealing pulmonary metastases. Staging based on the FIGO criteria revealed stage III disease with a risk score of 7, classifying the patient as high risk. A

multidisciplinary team recommended urgent chemotherapy using the M-EA regimen (methotrexate, etoposide, and actinomycin D). The patient underwent 10 cycles. During chemotherapy, the levels of β-hCG began to decline rapidly and have remained within the normal range since completion of treatment. The patient is currently under regular monitoring. Follow-up evaluations show favorable treatment response, with no signs of disease progression. Conclusion: This case highlights the importance of early diagnosis and treatment of high-risk gestational trophoblastic disease. With timely diagnosis, appropriate chemotherapy, and regular follow-up, these cases can have a favorable outcome.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Roberta Magilevičiūtė

Title: Paraneoplastic dermatomyositis in a patient with ovarian cancer: a case report

Abstract No. 187

Dermatomyositis (DM) is a rare idiopathic inflammatory myopathy that primarily affects the skin and proximal skeletal muscles, often presenting with characteristic cutaneous findings, such as Gottron's papules. While DM can occur on its own, it is increasingly recognized as a paraneoplastic syndrome associated with underlying malignancies. Ovarian carcinoma is one of the most frequently reported neoplasms, related with paraneoplastic DM. Dermatomyositis may be the first clinical sign of a malignancy, so these patients must be examined very carefully. Early recognition of this association is essential, as timely diagnosis and treatment of the underlying cancer can lead to significant improvement or even complete resolution of DM symptoms. Case:A 51-yearold female presented with progressive weakness in the proximal muscles of her arms and legs, accompanied by an itchy rash. During examination by a rheumatologist, Gottron's papules and décolleté erythema were observed. Paraneoplastic polymyositis was suspected secondary to an underlying malignancy, and the patient underwent a computed tomography (CT) scan of the abdomen, pelvis and thorax. The imaging revealed an ovarian tumour with metastases to the omentum, truncus coeliacus, paraaortic and cardio-diaphragmatic lymph nodes. The multidisciplinary team decided that the patient required surgical treatment and cytoreductive surgery was performed. After histopathological examination of the resected tissues patient was diagnosed with stage IV, G3 serous carcinoma. After surgery, the patient was re-evaluated by the rheumatologist, who confirmed a systemic connective tissue disorder (paraneoplastic syndrome) associated with oncological disease. Treatment with prednisolone was started, along with adjuvant chemotherapy. The patient was closely monitored, and over time, muscle strength improved and the rash disappeared. Conclusion:This case represents that female patients with suspected dermatomyositis, need to be carefully evaluated to rule out an underlying malignancy. Early detection and a

multidisciplinary treatment approach can significantly improve symptoms and overall outcomes.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Natalia Świsłocka

Title: A Unique Case of Cerebellar Metastasis from Mucinous Ovarian Carcinoma in a Young Woman

Abstract No. 188

In 2022, ovarian cancer was ranked 6th in Poland in terms of the incidence of malignant tumors. Mucinous ovarian tumors are mostly benign (80%) neoplasms. However, while malignant, are almost the rarest (3%) of all malignant ovarian cancers and usually manifests as a cystic-solid masses with mucinous content. Prognosis depends on the stage at diagnosis.
Diagnosis is usually established based on the material obtained by laparotomy or surgery. A 24-year-old woman with no significant family history of gynecological neoplasms was referred for a gynecological ultrasound after reporting increased abdominal circumference and severe back pain to her primary care physician. USG showed 30cm x 24cm a cystic-solid tumor and 3L of fluid in true pelvis. Serum β-hCG level was high. The exploratory laparotomy was planned following oncologist consultation. After the resection of the left ovary tumor and right ovary followed by lymphadenectomy and omentectomy, the intraoperative histopathology confirmed mucinous carcinoma diagnosis. Neoplastic vascular invasion was noted, but the lymph nodes were free. Treatment of choice in this case was conservative resection. Two years later the woman was referred for neurosurgeon consultation after reporting 3 day-long severe headache in emergency department. Neurological examination revealed abnormalities. CT scan showed a 5cm x 4cm cystic-solid mass in posterior cranial fossa. The neurosurgery was performed, and histopathology confirmed the metastasis of mucinous ovarian carcinoma in cerebellum. Advanced genetic tests were ordered, which revealed a TP53 mutation of a confirmed pathogenic nature. The woman was redirected to palliative radiotherapy and died three months later. Malignant tumors at a young age are extremely rare, but they do occur. They are most often caused by

hereditary mutations or congenital syndromes. Early diagnosis is key to surviving the disease. The most important thing is not to ignore the symptoms and to seek medical attention from specialists if needed.

Book of Abstracts

Session:

CR10 Surgery III

AULA 4

SAT 26.04.2025 12:30-14:30

Authors: Urszula Popko

Title: A primary CNS diffuse large B-cell lymphoma posing as meningioma: case report

Abstract No. 189

Primary lymphomas (PCNSLs) located within the central nervous system make up 2-3% of all primary intracranial tumors, with diffuse large B-cell lymphomas (DLBCLs) being the most common. The treatment usually consists of chemotherapy and radiotherapy, with surgical intervention only recommended in urgent cases. With a five-year survival of 30%, it is important to correctly diagnose DLBCL, as misdiagnosis poses a risk of delaying appropriate treatment or subjecting patients to unnecessary procedures. PCNSLs in immunocompetent patients typically display a set of radiographic features which allow accurate diagnosis. Diagnostic challenges arise from discrepancies of those features, which may vary in patients.CASE PRESENTATION:A 77-year-old female patient presented with aphasia, rightsided hemiparesis and facial nerve paresis. No relevant past medical history noted. Magnetic Resonance Imaging (MRI) head revealed large homogenous, hyperintense lesion in the region of the left and right parafalcine frontal lobe.INTERVENTIONS AND OUTCOME:MRI scans raised suspicion of a meningioma therefore, the patient successfully underwent surgical excision of the tumor.Post-operatively, the signs of aphasia and hemiparesis partially subsided. Pathological assessment revealed DLBCL.RELEVANCE:This report highlights the diagnostic challenges of CNS tumors, which often present with overlapping features, and how said challenges influence patient management.

Book of Abstracts