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ABSTRACT BOOK

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The Management of Critical Patient in Infectious Diseases

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MANAGEMENTUL PACIENTULUI CRITIC ÎN PATOLOGIA INFECȚIOASĂ

5-7 iunie 2024

Aula Facultății de Farmacie

MANIFESTARE CREDITATĂ DE COLEGIUL MEDICILOR DIN ROMÂNIA

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CONFERENCE PROGRAM

Wednesday, 05.06.2024

- 11.00 - 14.00 Registration of participants
Location: Faculty of Pharmacy Hall of UMFST George Emil Palade from Târgu Mureș
- 14.00 - 14.30 Welcome Coffee

14.30 - 14.45 Opening of MaPaCi 7 Conference

14.45 - 15.35 Session 1: Approaching critically ill infectious patient: Diagnosis and Management

Co-chairs: Anca-Meda Văsieșiu, Andreea Căpîlnă

- | | | |
|----------------------|--|--------------------------------------|
| 14.45 - 15.00 | Facile Tools for Monitoring Sepsis, Septic Shock and SARS-CoV 2 infection progression in Intensive Care Units | Anca-Meda Văsieșiu |
| 15.00 - 15.15 | Integrated Plan to Reduce the Risk of HAIs in Medical Units | Andreea Căpîlnă |
| 15.15 - 15.25 | Unveiling the urgency: Tackling the complexity of severe ear nose and throat complicated infections | Ana Dobrin |
| 15.25 - 15.35 | Navigating the Complexities of Toxic Streptococcal Shock Complicated by Influenza: Two Case Reports | Raluca Tripon |
| 15.35 – 16.05 | Simpozion științific GILEAD: Succes pe termen lung în infecția HIV - repere în tratamentul antiretroviral | Anca-Meda Văsieșiu |
| 16.05 – 16.20 | Coffee Break | |
| 16.20 – 16.50 | Simpozion științific EL PHARMA: Dovato - optimizare și simplificare în managementul infecției cu HIV | Iringo-Erzsebet Zaharia-Kezdi |

16.50 – 19.00 Session 2: Approaching critically ill infectious patient: Opportunistic infections in HIV immunocompromised patients

Co-chairs: Manuela Arbune, Ruxandra Moroti, Carmen Chiriac

- | | | |
|---------------|---|-----------------|
| 16.50 - 17.10 | Beyond the Diagnosis: Exploring Progressive Multifocal Leukoencephalopathy in AIDS: A case Report and review of the literature. | Manuela Arbune |
| 17.10 – 17.30 | Characteristics of HIV-Infected Patients Admitted to the Intensive Care Department | Carmen Chiriac |
| 17.30 – 17.50 | HIV and the measles virus - what do they have in common? | Ruxandra Moroti |
| 17.50 - 18.00 | Cryptogenic Encephalitis in a Severely Immunocompromised Host: HIV Encephalopathy, Toxoplasmosis Reactivation, or Measles Complication? | Rareș Luca |



18.00 - 18.10	Neurological complications of measles in immunocompromised patients	Gabriela-Mihaela Diaconița
18.10 - 18.30	HIV Associated Lymphomas	Andrea Incze
18.30 - 18.45	Coxsackie A9 Septic Shock in an Immunocompetent Young Patient – Overlooked Viral Etiology	Elif Soium
18.45 - 19.00	Inaugural disseminated cryptococcosis in a patient with acquired severe immunosuppression	Adriana Boca
19.30	Dinner (Plaza Restaurant)	

Thursday, 06.06.2024

9.00 - 10.30

Session 3: Severe Infections of the Central Nervous System

Co-chairs: Adriana Hristea, Corneliu Popescu

9.00 - 9.20	Challenges in the Diagnosis of Tuberculous Meningitis	Adriana Hristea
9.20 - 9.40	Difficulties in the diagnosis of acute CNS infections	Corneliu Popescu
9.40 - 10.00	Challenges of the differential diagnosis in the border area of infectology and neurology	Szabolcs Szatmari
10.00 - 10.20	Infections of the Central Nervous System in ICU-SCBI: Extremely Expensive Pathology	Lucia Herbel
10.20 - 10.30	Complications of CNS Tuberculosis in an Apparently Immunocompetent Host (Trichosporon)	Rareș Luca
10.30-10.40	Coffee break	

10.40 - 12.00

Session 4: Critically Infectious Medicine - Progress and Ethics

Co-chairs: Adrian Streinu-Cercel, Sanda Copotoiu

10.40 - 11.00	Governance of defense systems post-COVID-19	Adrian Streinu-Cercel
11.00 - 11.20	Antibiotic Resistance in Crisis Situations	Irina Dumitru
11.20 - 11.40	A public health system perspective on critically ill care: challenges and opportunities	Marius-Ionuț Ungureanu
11.40 - 12.00	Postpandemic ethics	Sanda Copotoiu

12.00 - 12.30

**Session 5:
Emerging Infections (I)**

Co-chairs: Simin-Aysel Florescu, Amanda Rădulescu

12.00 - 12.15	Severe Localized Q Fever, a Rural Disease? Report of two Cases And Discussion of the Literature	Amanda Rădulescu
12.15 - 12.30	Clinical and imaging characteristics in patients with pulmonary thrombosis associated with COVID-19	Cristian-Mihail Niculae
12.30 - 12.50	Simpozion științific SOBI: Cursa împotriva rezistenței: încurajarea acțiunii și a răspunderii în rezistența antimicrobiană	Mihaela Lupșe

12.50 - 13.30

**Session 6:
Antimicrobial Resistance in Intensive Care**

Co-chairs: Simin-Aysel Florescu, Amanda Rădulescu

12.50 - 13.10	IAAM with Klebsiella	Simin-Aysel Florescu
13.10 - 13.30	Combination Antibiotic Therapy vs. Monotherapy: Current Recommendations	Egidia Miftode
13.30 - 14.30	Lunch	

14.30 - 16.15

**Session 7:
Approaching critically ill infectious patient: Opportunistic infections in non-HIV immunocompromised patients**

Co-chairs: Mihaela Lupșe, Victoria Bîrluțiu

14.30 - 14.50	Aspergillosis in COVID-19:CAPA	Mihaela Lupșe
14.50 - 15.10	Characteristics of Infections in Hemodialysis Patients	Victoria Bîrluțiu
15.10 - 15.25	Opportunistic Infections In Pediatric Hemato-Oncology – Case Report	Andreea Ligia Dincă
15.25 - 15.40	Challenges in the Management of Infections in the Elderly Patient with Diabetes	Maria-Elena Cocuz
15.40 - 15.55	Infectious pathology of the elderly in the experience of Clinic of Infectious Diseases I in Targu Mures	Erzsebet-Iringo Zaharia-Kezdi

15.55 - 16.05	Brain abscess management in a non-HIV CD4 ⁺ T cell lineage immunosuppressed patient – Case report	Andreea Magdalena Ghibu
16.05 - 16.15	Cryptosporidium enteritis in a pediatric patient with Crohn's disease, undergoing immunosuppressive and biological therapy: a case report	Maria Săsăran
16.15 - 16.45	Simpozion științific MSD: Individualizarea tratamentului ARV - DORAvirina o opțiune durabilă și actuală	Anca-Meda Văsieșiu
16.45 - 17.00	Coffee break	

17.00 - 19.00

Session 8: Emerging Infections (II)

Co-chairs: Egidia Miftode, Maria-Elena Cocuz

17.00 - 17.10	Respiratory syncytial virus infection in adults	Nina-Ioana Bodnar
17.10 - 17.20	Comparative Epidemiology and Clinical Analysis of Infections with Influenza Type A and B in the Pediatric Population	Cristina Chiurtu
17.20 - 17.30	Hepatic decompensation during infection with influenza A in a patient with Child C alcoholic cirrhosis and end stage kidney disease	Alina-Cristina Dincă
17.30 - 17.40	Predictive Biomarkers for Assessing Mortality Risk in Severe Influenza Infections	Tudor Fleseriu
17.40 - 17.50	Relapse of Plasmodium Vivax in a Pakistani Male Patient	Maria-Luiza Teodorescu
17.50 - 18.00	Acute infection with Dengue virus - how do we act?	Sânziana Popescu
18.00 - 18.10	Acute enterocolitis with Clostridium Difficile in children: Clinical-epidemiological and evolutive aspects	Raluca Mihai
18.10 - 18.20	The prevalence of thrombembolic complications in patients with severe SARS-CoV-2 infection admitted to 1st Infectious Diseases Clinic	Valentina Negrea
18.20 - 18.30	Natural killer cell level modifications in acute SARS-CoV-2 infection	Akos Vince Andrejkovits
18.30 - 18.40	Prognostic Markers in COVID-19 Patients with Oncological Pathology Associated	Cristina Gîrbovan
18.40 - 18.50	A new measles outbreak in Brasov County- a new cause of respiratory failure	Ligia Rodină
18.50 - 19.00	The 2023-2024 Measles Outbreak in Mures County - Epidemiological and Clinical Aspects	Cristina Manasturean

19.30 Dinner ("Cocoșul de Aur" Restaurant)

Friday, 07.06.2024

8.30 - 8.55 **Simpozion științific Pfizer:** Navigând între teorie și practică.
Implementarea vaccinării antipneumococice în rândul populației adulte **Anca-Meda Văsieșiu**

8.55 - 10.00 **Session 9:**
Approaching critically ill infectious patient: Infections in the pediatric population

Co-chairs: Oana Mărginean, Irina Dumitru

8.55 - 9.10 Henoch-Schönlein Purpura with Atypical Onset, Mimicking a Digestive Infection in a Teenager - Case Presentation Oana Mărginean

9.10 - 9.20 Epstein-Barr Virus as a Trigger for Hemophagocytic Lymphohistiocytosis in the Pediatric Population- Case Presentation Lorena Meliț

9.20- 9.30 Peritonitis Mimicking the Onset of Acute Gastroenteritis in a Teenager Andreea Bianca Stoica

9.30 - 9.40 Unexpected Evolution of a Cerebral Abscess in a 17-Year-Old Patient With Cyanotic Congenital Heart Disease – From Bad To Worse Cristina Al-Akel

9.40 - 9.50 Complex Aortic Valvular Pathology, from Malformation to Infection- A Paediatric Case Report Andrei Dunăreanu

9.50 - 10.00 Challenges and Insights: A Case Report of an Acute Meningoencephalitis with Streptococcus pneumoniae followed by complications Ana Maria Koller

10.00 - 11.15 **Session 10:**
Approach of the critically ill patients with severe non-HIV-associated immune suppression: transplant recipients, hematologic patients

Co-chairs: Daniel Coriu, Gabriela Droc, Constantin Bodolea

10.00 - 10.25 Multidisciplinary Management Of Hematologic Patients with Severe Infections: Lessons Learned and Best Practices Daniel Coriu

10.25 - 10.50 The Impact of Infections on the Liver Transplant Patient Gabriela Droc

10.50 - 11.15 Invasive Fungal Infections in Kidney Transplant Patients / Invasive Fungal Diseases in Kidney Transplant Recipients. Constantin Bodolea

11.15 - 11.30 Coffee break

11.30 - 11.50 **Simpozion științific EWOPHARMA:** Importanța susținerii sistemului imunitar în managementul infecțiilor virale **Anca-Meda Văsieșiu**

11.50-13.30

**Session 11:
Various**

Co-chairs: Violeta Briciu, Dumitru Cârștina

11.50 - 12.10	Multidisciplinary Management of Suspected Lyme Borreliosis	Violeta Briciu
12.10 - 12.30	Post-Acute Infection Syndrome	Dumitru Cârștina
12.30 - 12.40	Chelonitoxism - Danger of Food-borne Infection Associated with Exotic Cuisine	Talida Novăcescu
12.40 - 12.50	SARS-CoV2 infection in a severe immunocompromised patient with NHML and recent HIV diagnosis	Mihaela Mariana Mavrodin
12.50 - 13.00	The Challenges of Prolonged Febrile Syndrome	Maria Grigoriu
13.00 - 13.10	Urinary tract infections: Etiology and Antibiotic Resistance Profiles among the patients with History of Urologic Interventions	Mădălina Constantin
13.10 - 13.20	Neisseria Meningitidis – An Innocuous Germ	Alexandra Rotaru
13.20 – 13.30	A case of infective endocarditis in a patient with dementia and diabetes	Andreea Florentina Stoenescu

13.30 - 13.40

Closing of the MaPaCi 7 Conference

13.40 - 14.40 Lunch

Papers presented in poster form:

HIV-HBV co-infected late presenter	Zsuzsanna Nagy
Streptococcus Pneumoniae Meningoencephalitis Complicated By Subdural Empyema: A Case Report	Ervin-József Susányi
Spondylodiscitis Complicated with Meningitis Caused by Streptococcus Group C - Case Report	Anca Elena Duduvecu,
Septicemia and meningitis due to Listeria monocytogenes in an immunocompetent adult patient: case report	Norbert Kovacs
Beyond the Rash: Respiratory Failure in Measles - A Case Series	Kovacs Norbert
Epstein-Barr virus induced acute hepatitis in a 7 years old girl: a challenging diagnosis	Cristina Nițu
Severe relapsing Clostridiosis due to COVID-19 and abusive antibiotic therapy - case report	Camelia Glăvan

APPROACHING CRITICALLY ILL INFECTIOUS PATIENT: DIAGNOSIS AND MANAGEMENT

UNVEILING THE URGENCY: TACKLING THE COMPLEXITY OF SEVERE EAR NOSE AND THROAT COMPLICATED INFECTIONS

Ana Dobrin¹, Valeriu Gheorghita¹, Violeta Melinte¹

¹ Department of Infectious Diseases, Prof. Dr. Agrippa Ionescu Emergency Clinical Hospital

Background: Otolaryngological infections represent a frequent and complex medical issue, affecting individuals of all ages and often associated with severe complications. *Streptococcus pyogenes* is one of the main pathogens, contributing to various conditions in the ear-nose-throat (ENT) area and exhibiting virulence through complex mechanisms. **Material and methods:** This study was conducted based on two clinical cases presenting the challenges of treating severe ENT infections-as the primary focus, with complicated progress. **Results:** We identified two representative cases of severe ENT infections, one of which was caused by *Streptococcus pyogenes*. Both cases presented complex clinical courses: the first one resulted in necrotizing fasciitis and septic arthritis; the second one complicated with suppurative laterocervical abscesses exacerbated by different healthcare-associated infections (HAI). Both patients required intensive treatment and surgical interventions. Adequate and prompt antimicrobial treatment led to significant improvements in the patients' clinical condition, with a slower recovery in the second case, probably due to healthcare-associated infections and later initiation of the appropriate treatment. **Conclusions:** ENT infections caused by *Streptococcus pyogenes* represent a major public health concern, requiring a multidisciplinary approach and promptness in diagnosis and treatment. Early recognition, proper treatment, and adherence to antibiotic management principles are crucial for preventing complications and improving outcomes for patients. More attention and prevention measures are needed for lowering the risk for HAI especially in elderly patients.

Keywords: ear nose and throat complicated infections, *Streptococcus pyogenes*, necrotizing fasciitis, septic arthritis, healthcare-associated infections

SARS-COV2 INFECTION IN A SEVERE IMMUNOCOMPROMISED PATIENT WITH NHML AND RECENT HIV DIAGNOSIS

Mihaela-Mariana Mavrodin¹, Roxana-Carmen Cernat¹, Elena Dumea¹, Rodica Lesanu², Nicoleta Chipaila², Claudia Fodor², Bogdan Nitu¹, Elena Tunariu³, Raluca Mihai¹, Claudia Simona Cambrea¹

¹ Department of Infectious Diseases, Ovidius University of Constanța

² Department of Infectious Diseases, Clinical Infectious Diseases Hospital, Constanta, Romania

³ Department of Infectious Diseases, Ovidius Clinical Hospital, Constanta, Romania

Background: Immunocompromised patients with SARS-CoV2 infection experienced significantly more hospitalizations, longer illness duration, and more severe diseases and complications requiring ICU and sometimes mechanical ventilation compared to immunocompetent patients. **Material and methods:** We describe the case of a 48 y.o. patient with treatment-induced immunocompromised state (NHML chemo and radio-treated in 2023) and newly discovered HIV-secondary immunodeficiency, infected with SARS-CoV2 while he was hospitalized and treated for acute bronchopneumonia in Constanta County Clinical Hospital. The patient had been admitted in our hospital, confirmed with HIV infection (C3 CDC stage with CD4 10 cell/mm³, HIV-RNA 327.000 c/ml despite previously HIV negative status), and active SARS-CoV2 infection after following standard treatment with Remdesivir, *Pneumocystis jirovecii* and *Bordetella bronchiseptica* pneumonia. Due to his critical status, treatment with Remdesivir, Co-trimoxazole in high dose and Prednisone, Levofloxacin and supplemental oxygen was initiated in association with cART with slow regression of the respiratory syndrome. **Results:** Despite antiviral treatment for COVID-19, the patient remained viremic, thus a long course with Nirmatrelvir/Ritonavir was initiated. Meanwhile a new pulmonary lesion was considered as TB-related and specific treatment was started till a bronchoscopy was performed. The status of the patient slowly improved and the patient was dismissed after several hospitalizations. **Conclusions:** Immunocompromised patients may have a severe evolution and longer duration of illness as they are not able to obtain SARS-CoV2 clearance, thus resulting a longer period of contagiousness requiring close medical supervision and tailored treatment. Also, long recovery time must be expected.

Keywords: severe immunosuppression, HIV late presenter, NHML, SARS-CoV2 infection

NAVIGATING THE COMPLEXITIES OF TOXIC STREPTOCOCCAL SHOCK COMPLICATED BY INFLUENZA: TWO CASE REPORTS

Raluca-Elena Tripon¹, Bogdan Ghitoaica¹, Mihaela Lupse¹

¹ Department of Infectious Diseases, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca

Background: Toxic streptococcal shock (TSS) and influenza are severe infectious conditions that can lead to life-threatening complications, particularly in pediatric and young adult populations. **Material and methods:** This abstract describes two cases of TSS exacerbated by influenza, highlighting the difficulties in diagnosis, management, and therapy progression. **Results:** Case 1 involves a 6-year-old patient presenting with fever, cough, rhinorrhea, and a generalized maculopapular rash, suspected to be streptococcal in origin. Additionally, tests revealed influenza type A. Despite antibiotic and antiviral treatment, the patient had a severe consequence, TSS, which required intensive care unit (ICU) admission. Rapid deterioration occurred, with worsening rash, periorbital edema, and respiratory distress. Intensive management, including immunoglobulins, vasoactive support, and corticosteroids, led to gradual improvement and eventual discharge. Case 2 features a 23-year-old female presenting with fever, cough, myalgias, arthralgias, dysphagia, and subsequent skin rash and periorbital edema. Initial suspicion of influenza led to Oseltamivir treatment, which triggered a rash and edema, prompting reevaluation. After being admitted for observation, the patient quickly deteriorated, acquiring septic shock, metabolic acidosis, and pneumonia. Despite the early instability, proper antibiotic medication and supportive care resulted in steady improvement. **Conclusions:** These cases underscore the multifaceted nature of TSS and influenza, where clinical presentations can vary widely and complications may arise unpredictably. Prompt detection and management are critical, demanding a collaborative effort involving infectious disease specialists, intensivists, and other healthcare providers. Close monitoring, timely adjustments to treatment plans, and vigilant management of complications are essential for optimizing patient outcomes. Furthermore, these cases highlight the importance of considering influenza as a potential complicating factor in TSS, particularly during seasonal outbreaks. The interaction between these two infectious entities can exacerbate clinical severity and complicate management strategies. Therefore, clinicians must maintain a high index of suspicion for concurrent influenza infection in patients presenting with TSS symptoms, especially during peak influenza seasons. In conclusion, these cases exemplify the complexities and challenges associated with managing TSS complicated by influenza. Through interdisciplinary collaboration and tailored interventions, favorable outcomes can be achieved, emphasizing the importance of comprehensive care and vigilance in the face of these potentially life-threatening conditions.

Keywords: Toxic streptococcal shock syndrome (TSS), influenza, intensive care

COMBINATION ANTIBIOTIC THERAPY VS MONOTHERAPY: CURRENT RECOMMENDATIONS

Egidia Miftode¹, Maria Gabriela Grigoriu¹, Larisa Miftode¹

¹ Department of Infectious Diseases, Grigore T. Popa University of Medicine and Pharmacy, Iasi

Background: It is currently unknown whether antibiotic monotherapy or combination therapy is a more effective treatment for patients with some types of infections such as: bloodstream infections with gram negative bacteria or with *Staphylococcus aureus*, neutropenic patients, **Material and methods:** Factors to be taken into account for widening empirical coverage with antibiotics are disease severity, expected pathogens, comorbidities, status of immunosuppression, site of infection, local epidemiology and prior exposures to antibiotics, hospitalization / long-term care facility. **Results:** Rationale for combination therapy includes improve outcomes and decrease risk of resistance emerging during treatment. Recent studies evaluated efficacy of new antibiotics such as ceftazidime-avibactam in monotherapy or in combinations with polymyxins, aztreonam, and other molecules in the management of carbapenem-resistant *Klebsiella pneumoniae*, or, different combinations for *Pseudomonas aeruginosa* and *Acinetobacter* infections. Another pathology intensely debated by expert forums regarding the benefits of combining antibiotics is infective endocarditis. **Conclusions:** Combination therapy must not be used for everyone because of the risk of more adverse effects, Increased risk of colonization (and later infection) by MDR/XDR/PDR bacteria and it is not better than monotherapy in a majority of cases.

Keywords: Antibiotics, Monotherapy, Combinations

COXSACKIE A9 SEPTIC SHOCK IN AN IMUNOCOMPETENT YOUNG PATIENT - OVERLOOKED VIRAL ETIOLOGY

Elif Soium¹, Maria Cristina Vacaroiu², Violeta Melinte¹, Valeriu Gheorghita¹

¹ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

² Department of Infectious Diseases, Prof. Dr. Agrippa Ionescu Emergency Clinical Hospital

Background: INTRODUCTION: Sepsis is widely accepted to be a life-threatening complication of a host's dysregulated response to an infection (1). It is a complex syndrome, requiring critical thinking and early therapy for the correct management. **Material and methods:** CASE PRESENTATION: We describe a 32-year-old patient, with no relevant medical history, who presented to the E.R. with fever, rigors, hypotension (BP=80/50 mmHg), and tachycardia (120 bpm). Test results showed neutropenia and lymphopenia, elevated inflammatory markers and liver enzymes. MultiplexPCR panel, blood cultures and urocultures were negative. Few ground-glass opacities were observed on CT scan, and the patient was admitted to the ICU, with broad-spectrum antibiotics and antifungal. After 36 hours he develops myocarditis and perioral vesicles. CT scan shows progression of the ground-glass opacities and pleural effusion. Antiviral agent was added to his previous medication. Blood work for CMV, HSV 1/2, EBV, HTLV, Toxoplasma gondii, Chlamydomphila pneumoniae, Mycoplasma pneumoniae, Coxiella burnetti, Cocksackie were negative, later a positive Cocksackie A9 was obtained. **Results:** DISCUSSION: Viral sepsis is often overlooked by physicians (2). For Cocksackie virus infections the clinical picture may vary, including acute respiratory distress syndrome, myocarditis and skin lesions, as in this presentation (3). Given the severity of the clinical manifestations and the absence of typical immunodeficiency etiologies, the search for less recognized risk factors identified plausible non-alcoholic fatty liver disease (NAFLD). **Conclusions:** CONCLUSION: In front of a critical patient, all etiologies for sepsis should be taken into consideration. While paying attention to traditional and nontraditional risk factors, a judicious mind should recognize the first signs and symptoms of sepsis and install early therapy.

Keywords: Sepsis, Septic shock, Cocksackie A9, NAFLD, Myocarditis

HIV ASSOCIATED LYMPHOMAS

Andrea Incze¹, Anca-Meda Vasiesiu¹, Erzsébet-Iringó Zaharia-Kezdi¹, Nina-Ioana Bodnar¹, Ákos Vince Andrejkovits¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureş

Background: In the antiretroviral era lymphomas have become less frequent in patients living with HIV (PLWH) than before, but they still represent the most frequent cause of cancer death. Most of the lymphomas appear when the T CD4+ cell count is below 200 cells/mm³, except Burkitt lymphoma and Hodgkin lymphoma. Treatment consists of cytostatic therapy in association with immunotherapy, and antiretroviral therapy for HIV. **Material and methods:** A retrospective study was performed, using the data of PLWH admitted to the 1st Infectious Diseases Clinic of Targu Mures during 2014-2024 February, including patients with histologically confirmed lymphoma. 14 cases were found. Demographic data, HIV stage, T CD4+ lymphocyte count, HIV viral load, type of lymphoma, diagnosis, therapy, complications, and outcome were noted. **Results:** 85.71% of the PLWH with lymphoma were males, 50% aged between 21-30 years, 71.42% with T CD4 lymphocyte count 3, 14.28% with undetectable HIV viral load, 85.71% in HIV stage C3, 57.14% on a regimen with integrase inhibitors, and 42.85% on a regimen with protease inhibitors. 35.71% of patients were tested HIV due to the presence of lymphoma. 57.14% had diffuse large B cell lymphoma, 21.42% Burkitt lymphoma, 14.28% Hodgkin lymphoma and 7.14% plasmablastic lymphoma. 35.71% had extraganglionic localisation of the lymphoma. Histopathological examination of the lymph node was used for diagnosis in most of the cases. Thrombosis and respiratory failure were the most frequent complications. EPOCH (etoposide, prednisolone, vincristine, cyclophosphamide, doxorubicin), CHOP (cyclophosphamide, doxorubicin, vincristine, prednisone) and intrathecal methotrexate therapies were used. 57.14% of the PLWH with lymphoma died within 6 months following the lymphoma diagnosis. **Conclusions:** Lymphoma in PLWH is associated with low T CD4+ cell count, high HIV viral load, advanced HIV. Despite antiretroviral and cytostatic therapy the death rate is high. A recommended therapeutic option is association of rituximab or other immunotherapies to improve the prognosis of these patients.

Keywords: PLWH (patients living with HIV), Diffuse large B cell lymphoma, Hodgkin lymphoma, Burkitt lymphoma, Plasmablastic lymphoma

FACILE TOOLS FOR MONITORING SEPSIS, SEPTIC SHOCK AND SARS-COV 2 INFECTION PROGRESSION IN INTENSIVE CARE UNITS

Anca-Meda Văsieșiu¹, Raluca Fodor², Tudor Fleșeriu¹, Irina Săplăcan², Bianca-Liana Grigorescu²

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Department of Anesthesiology and Intensive Care Medicine I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Bedside tools are invaluable for providing real-time, non-invasive measurements that can guide immediate clinical decision-making, thus improving patient outcomes. Carboxyhemoglobin (COHb) results from the irreversible binding of carbon monoxide (CO) to hemoglobin. The neutrophil-lymphocyte ratio (NLR) may offer insights into the balance between pro-inflammatory and anti-inflammatory response. **Material and methods:** These laboratory findings have emerged as potential biomarkers in critical care settings, particularly in sepsis, septic shock and SARS-CoV-2 infections. This study explores the dynamics of COHb levels and NLR in these conditions to elucidate their roles in pathophysiology and as potential diagnostic tools. **Results:** In sepsis and septic shock, COHb and NLR levels have been proven to be elevated. Sepsis induces a systemic inflammatory response, leading to enhanced heme catabolism by heme oxygenase-1 (HO-1), which produces CO as a byproduct, resulting in increased COHb levels. Elevated COHb in sepsis correlates with oxidative stress and cellular damage, reflecting the disease severity and organ dysfunction. Similarly in SARS-CoV-2 infection, the severity of the disease has been associated with elevated COHb levels. The hyper-inflammatory state and the hypoxic environment caused by extensive lung damage and impaired oxygen exchange seen in severe cases lead to increased HO-1 activity and subsequent CO production. **Conclusions:** The dynamics of COHb and NLR in these conditions underscore their potential as a non-invasive, accessible, bedside biomarkers for early prognosis and disease monitoring. However, the interpretation of COHb levels must consider other factors such as smoking status and environmental CO exposure, which can also elevate its levels. Further research is needed to establish standardized cut-off values and to expand the understanding of the link between these bedside markers and disease pathogenesis in sepsis, septic shock, and SARS-CoV-2 infection severity.

Keywords: Carboxyhemoglobin (COHb), Neutrophil-Lymphocyte ratio (NLR), Sepsis, Bedside tool, SARS-CoV 2

APPROACHING CRITICALLY ILL INFECTIOUS PATIENT: OPPORTUNISTIC INFECTIONS IN HIV IMMUNOCOMPROMISED PATIENTS

CHARACTERISTICS OF HIV-INFECTED PATIENTS ADMITTED TO THE INTENSIVE CARE DEPARTMENT

Lucia Carmen Chiriac¹, Nina-Ioana Bodnar¹, Erzsébet-Iringó Zaharia-Kezdi¹, Andrea Incze¹, Cristina Gîrbovan¹, Valentina Negrea¹, Anca-Meda Văsieșiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Effective combined antiretroviral therapy (ARVT) used in the recent decades has changed the prognosis of human immunodeficiency virus (HIV) infection from a rapidly progressive lethal disease to a chronic condition with low impact on life expectancy. However, patients infected with HIV continue to be exposed to a significant risk of critical illness requiring complex management in an intensive care unit (ICU). **Material and methods:** We performed a retrospective analysis of the cases of HIV-infected patients admitted to the ICU department of the County Clinical Hospital Mures. Epidemiologic, clinical, biological data were correlated to the immune suppression degree (T CD4 lymphocytes count) and HIV-RNA plasma viral load, risk factors of evolution towards death. **Results:** Between January 1st 2020 and April 4th 2024, 77 patients infected with HIV were admitted to the Infectious Diseases Clinic I of Tîrgu Mures, out of which 18 (23.40%) cases required hospitalization in the ICU. Six patients, with a mean age of 44 years, were recently diagnosed HIV infection cases - late presenters, with a CD4 T lymphocyte count ≤ 200 cells/ μ L. HIV-associated conditions included progressive multifocal leukoencephalopathy, sepsis and septic shock, bone marrow aplasia, multisystemic tuberculosis. Twelve HIV-infected patients, with an average age of 36 years, developed severe opportunistic infections associated with various comorbidities, supported by advanced immune suppression (mean CD4 T lymphocytes count 146 cells/ μ L, due to poor adherence to ARVT: miliary and fibro-cavitary pulmonary tuberculosis, decompensated liver cirrhosis associated with chronic hepatitis B virus infection, non-Hodgkin lymphoma, acute myeloblastic leukemia, subacute myoclonic encephalopathy following measles, glomerular nephropathy with positive pANCA antibodies, impure nephrotic syndrome. Severe evolution towards death was registered in 7 cases. **Conclusions:** Late diagnosis of HIV infection, poor adherence to ARVT determines the development of opportunistic infections and severe comorbidities, which represent the main causes of admission of HIV-infected patients to the ICU.

Keywords: HIV infection, critical illness, Intensive care unit, opportunistic infections, severe comorbidities

BEYOND THE DIAGNOSIS: EXPLORING PROGRESSIVE MULTIFOCAL LEUKOENCEPHALOPATHY IN AIDS: A CASE REPORT AND REVIEW OF THE LITERATURE.

Arbune Manuela¹, Sabina-Lucia Ganea², Anca-Adriana Arbune³

¹ Department of Infectious Diseases, Lower Danube University of Galati

² Department of Infectious Diseases, Galati Clinical Hospital for Infectious Diseases

³ Department of Infectious Diseases, Fundeni Clinical Institute, Bucharest

Background: Progressive multifocal leukoencephalopathy (PML) is an opportunistic infection of the central nervous system (CNS), characterized by focal demyelination. The aetiology of PLM is the human polyoma virus JC virus (JCV). The primary infection is usually asymptomatic. The frequency of serologic markers in adults is 20-70%. Urine chronic carrier state is found in 20-30% of healthy adults. **Material and methods:** A case report and review of the literature, based on research of Web of Sciences database, by the key words "Progressive Multifocal Leukoencephalopathy" and "AIDS". After refining by the year of publication from 2022 to 2024, we found 46 publications. **Results:** A young man of 33 years old, with weight loss and recurrent pneumonia in the last six months, was presented to the emergency room for conscience loos. A rapid HIV test was positive, and he was referred to the infectious department. The epidemiological investigation found in the database that he was already confirmed with HIV on the age of 8, in the context of lymphadenopathies, but the patient and his parents didn't know about the diagnostic. We found severe immunodepression, LCD4=11/mm3 and RNA-HIV= 397000c/ml. Clinical evaluation and Imagistics have supported the multifocal leukoencephalopathy, although JCV identification was not available. Prophylactic TMP-SMX and Clarithromycin, antiretrovirals (BIC) and corticosteroids were provided, but neurocognitive disfunction rapidly progressed and he died in a month. The unusual long surviving after HIV diagnostic, but with no treatment, is a peculiarity of the case. Neurological syndrome was found previous to antiretroviral treatment, but JC infection could be exacerbated as immune reconstitution inflammatory syndrome, although he received corticosteroids. No specific therapies anti-JCV are available. Antiretrovirals could decrease the risk of death, but survival depends on the reversal underlying immunosuppression. Checkpoints inhibitors and

adoptive T cell transfer are promising future immunotherapeutic interventions. **Conclusions:** Deficient communication of HIV diagnostic contributed to neglect HIV treatment, development of opportunistic disorders and death. Progressive multifocal leukoencephalopathy is continuing challenge the clinicians and dramatically impacts HIV-related mortality during the antiretroviral era of treatment.

Keywords: John Cunningham Virus, Human Immunodeficiency Virus, Progressive Multifocal Encephalopathy

NEUROLOGICAL COMPLICATIONS OF MEASLES IN HIV IMMUNOCOMPROMISED PATIENTS

Gabriela-Mihaela Diaconița¹, Francisc-Andrei Buduleci¹, Anca-Meda Văsieșiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Measles is a highly contagious infectious disease caused by the measles virus, affecting individuals who lack prior immunization. Its neurological complications, notably encephalitis, are associated with severe progression and heightened mortality rates. **Material and methods:** Through this case series, we aim to present the clinical dynamics of two HIV-infected patients who suffered neurological complications after overcoming measles. **Results:** Case 1: A 34-year-old male patient, diagnosed with stage C3 acquired immunodeficiency syndrome (HIV/AIDS) non-compliant with antiretroviral therapy, who was treated for measles 2.5 months prior, exhibited neurological disturbances including headache, visual disturbances, dysphagia, and subsequent recurring myoclonic seizures leading to loss of consciousness and a comatose state (Glasgow Coma Scale [GCS] score of 3). Despite specialized treatment, his condition progressively deteriorated, developing repeated myoclonic seizures (one every 30 minutes), necessitating transfer to the Intensive Care Unit (ICU). Subsequent cranial CT imaging revealed a left parieto-occipital hypodense lesion suggestive of localized cerebral edema, indicative of reversible posterior leukoencephalopathy syndrome in the context of HIV infection. Despite aggressive medical interventions, the patient's status worsened, culminating in an episode of extreme bradycardia progressing to asystole and death. Case 2: A 34-year-old female diagnosed with stage C3 acquired immunodeficiency syndrome (HIV/AIDS), non-compliant with antiretroviral therapy, with a recent history of measles 5 months prior, presented with a productive cough, chills, left otalgia, and hearing impairment. Initial treatment included antibiotics, mucolytic, and symptomatic therapy with favorable progression, but within 2 weeks post-admission, she exhibited paroxysmal symptoms including gaze fixation, hypersalivation, upper limb contracture, followed by dysphagia and muscle hypotonia. Subsequently, she developed multiple repetitive generalized tonic-clonic seizures, requiring transfer to the ICU for advanced life support and specialized treatment. Despite intervention, her condition deteriorated, resulting in asystole after 2 weeks, with unsuccessful resuscitation attempts and subsequent demise. **Conclusions:** The neurological complications of measles underscore the critical importance of vaccination, given their significant morbidity and mortality rates.

Keywords: measles, neurological complications, immunodeficiency syndrome, HIV, immunization

CRYPTOGENIC ENCEPHALITIS IN A SEVERELY IMMUNOCOMPROMISED HOST: HIV ENCEPHALOPATHY, TOXOPLASMOSIS REACTIVATION, OR MEASLES COMPLICATION?

Rareș Luca¹, Olivia Burcos¹, Grațiela Țârdei², Valentina Simion³, Nadire Murat⁴, Cristina Piron⁴, Simin-Aysel Florescu³

¹ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

² Department of Microbiology, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

³ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

⁴ Department of Anesthesiology and Intensive Care Medicine I, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

Background: Diagnosing neurological symptoms in HIV patients is a complex medical challenge, requiring advanced multidisciplinary collaboration and comprehensive paraclinical evaluation, making use of advanced imaging and immunological testing. Key factors that guide differential diagnosis are immune status and adherence to antiretroviral therapy. **Material and methods:** We report the case of a 34-year-old male patient, diagnosed with HIV in 2004 - clinical class C3, showing partial adherence to antiretroviral therapy and suffering from mixed hepatic cirrhosis (viral through chronic HBV infection, and toxic due to chronic alcoholism and drug abuse). Additionally, he had a history of cerebral toxoplasmosis in 2022, and a measles infection one month prior. The patient was assessed in the Emergency Department of another hospital in Bucharest, presenting with fever and progressive neurological dysfunction, diminished verbal fluency, behavioral changes, and recurrent tonic-clonic seizures that

progressed towards convulsive status epilepticus ultimately leading to loss of consciousness and respiratory failure. A provisional diagnosis of viral encephalitis was established, and the patient was transferred to our clinic.

Results: Upon admission, the patient was sedated and mechanically ventilated, and exhibited fever and a measles-like macular erythematous rash covering the forearms and thighs. Laboratory tests revealed severe immunosuppression, inflammatory response syndrome, and elevated anti-measles IgG antibody serum levels. Spinal tap revealed clear CSF with elevated glucose, and extensive PCR testing rules out common and opportunistic infections as well as *Mycobacterium tuberculosis* and JC virus. Although the CSF PCR test returned negative for *Toxoplasma gondii*, CT imaging revealed multiple cortico-subcortical hypodense frontal and precentral lesions, indicating the possibility of cerebral toxoplasmosis reactivation. Detection of the measles virus in the endotracheal aspirate raised the suspicion of subacute myoclonic measles encephalitis, while quantitative HIV-RNA testing revealed viral compartmentalization within the CNS, consistent with bilateral hypodense cerebral lesions near the lateral ventricles and in the centrum semiovale, indicating possible HIV encephalopathy.

Conclusions: Central nervous system infections in severely immunocompromised patients raise significant diagnostic challenges, especially associated with extensive medical history. The patients clinical condition may complicate the therapeutic approach, even in the age of advanced nuclear testing and imaging. Neurological complications of measles in severely immunosuppressed patients require additional preventive measures.

Keywords: HIV, measles, toxoplasmosis, myoclonic, encephalitis

APPROACHING CRITICALLY ILL INFECTIOUS PATIENT: OPPORTUNISTIC INFECTIONS IN NON-HIV IMMUNOCOMPROMISED PATIENTS

CHARACTERISTICS OF INFECTIONS IN HEMODIALYSIS PATIENTS

Victoria Bîrluțiu¹

¹ Department of Internal Medicine II, Lucian Blaga University of Sibiu

Background: Patients with chronic kidney disease undergoing hemodialysis are at risk of infections due to uremia, which is associated with reduced polymorphonuclear function, complement activation, cellular immunity, and the risk of contamination of devices and healthcare-associated infections. **Material and methods:** Based on this hypothesis, we conducted a retrospective observational study on patients with stage V CKD hospitalized at the County Clinical Emergency Hospital Sibiu from January 2023 to April 2024 with bacterial or fungal infections.

Results: During the study period, 26 patients were hospitalized, including 17 males (65.4 %). Among the comorbidities present in the study group, hypertension was reported in 20 patients (76.9%), cardiac disease in 21 patients (80.8%), overweight/obesity in 50%, type 2 diabetes mellitus in 11 patients, neurological conditions in 6 patients, hematological conditions in 2 patients, and digestive disorders in 4 patients. Of the ten positive blood cultures, *Staphylococcus aureus* was isolated in 6 cases, and one case each of *Staphylococcus epidermidis*, *E. coli*, *Klebsiella pneumoniae*, and *Corynebacterium striatum*. One strain of *Staphylococcus aureus* and *S. lugdunensis* was isolated from a hemodialysis catheter. In cases of respiratory tract infections, *Klebsiella pneumoniae* was isolated from sputum samples in two cases, *Staphylococcus aureus* in one case, and *E. coli* from pleural effusion. In severely ill patients under OTI+MV, one strain of *Klebsiella pneumoniae* and *Proteus* spp. was isolated, and two cases had mixed bacterial and fungal infections. In 7 patients, the primary site of the bacterial infection was the kidney, with isolates of *E. coli* (3), *Klebsiella pneumoniae* (2), *E. faecalis*, and *Candida* spp. One patient presented with meningoencephalitis due to *Cryptococcus neoformans* and herpesvirus 6. After conducting statistical analysis, it was determined that there were no significant associations except for OTI+MV and patient status at discharge. **Conclusions:** Infections associated with CKD were related to CVC, followed by respiratory and urinary infections. The most frequent etiology was staphylococcal, followed by gram-negative bacilli; however, the presence of fungi, including *Aspergillus fumigatus* in two cases and *Cryptococcus neoformans* in one case, suggests the need to consider this etiology in these cases and prolonged corticosteroid therapy.

Keywords: Infection, chronic kidney disease, hemodialysis

CHALLENGES IN THE MANAGEMENT OF INFECTIONS IN THE ELDERLY PATIENT WITH DIABETES

Maria-Elena Cocuz¹, Iuliu Gabriel Cocuz²

¹ Department of Infectious Diseases, Transylvania University of Braşov

² Department of Pathophysiology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureş

Background: Among the many causes of immunosuppression, which favour the severe, even critical evolution of acute infections, are old age and various comorbidities, including diabetes mellitus. The aim of our study was to assess some clinical and evolutionary aspects of acute infections in elderly patients with type II diabetes mellitus in order to highlight the management features and the need for a multidisciplinary approach to these patients.

Material and methods: We have done a retrospective study analyzing the data from patients admitted to the Clinical Hospital of Pneumology and Infectious Diseases in Braşov, namely elderly patients with type II diabetes mellitus admitted for various acute infections between 01.04.2022-31.03.2024. The study group was represented by patients aged at least 85 years (old-oldest). Data were obtained from the clinical observation files. **Results:** Elderly patients accounted for 82.07% of all patients with type II diabetes admitted with various acute infections and 9.12% in the study group. The mean age was 87.77 years with an extreme of 92 years. The patients were 73.33% female, 90% from urban areas. All patients had cardiovascular comorbidities, followed by neuropsychiatric comorbidities in 33.33% of cases and 73.33% had at least 2 groups of associated chronic diseases. Acute infectious pathology was dominated by COVID-19 (70%), bacterial pneumonia (46.67%) and urinary tract infections (40%), with a median length of hospitalization of 10 days. Acute respiratory failure was present in 63.33% of patients, 26.67% had associated sepsis, 20% required admission to the hospital's ICU department and there was one death, of a patient with multiple comorbidities, taken in serious condition from an Internal Diseases ward and transferred directly to the hospital's ICU department with sepsis with intestinal and urinary tract onset.

Conclusions: Acute infections in elderly and diabetic patients require a complex case management with medical services adapted to the patients' particularities, within a multidisciplinary team (MDT).

Keywords: elderly, diabetes, COVID-19, multidisciplinary team (MDT)

INFECTIOUS PATHOLOGY OF THE ELDERLY IN THE EXPERIENCE OF CLINIC OF INFECTIOUS DISEASES I IN TARGU MURES

Erzsébet-Iringó Zaharia-Kézdi¹, Andrea Incze¹, Nina-Ioana Bodnar¹, Zsuzsanna Nagy²

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Department of Infectious Diseases, County Clinical Hospital Mureș, Clinic of Infectious Diseases I

Background: The aging processes of the population in the EU, respectively Romania represent and will constitute one of the most important challenges of the health system. According to the data of the National Institute of Statistics in 2023, the phenomenon of demographic aging led to the numerical excess of the elderly over the young. This active aging of the population is also reflected at the level of medical assistance with the change in the incidence and prevalence of some infectious-contagious diseases. The purpose of our study is to present clinical-evolutionary aspects regarding the elderly patients admitted to the Clinic of Infectious Diseases I in Targu Mures in the last 6 months. **Material and methods:** We performed a cross-sectional retrospective study on a group of 184 patients hospitalized between November 1, 2023 and April 1, 2024, representing 23,32% of all admitted patients in this period. We included subjects over 60 years old, who we divided into three categories: I. old-young (60-74 years), II. old-mature (75-84 years), III. oldest-old (>85 years). We followed the diagnosis of the acute infectious diseases, the comorbidities and the outcome. **Results:** The prevalence of various infectious pathologies was similar in all age groups. The most frequent diagnoses established in patients were infections of the lower respiratory tract (76,08%), the urinary tract (30,97%), soft tissue (11,41%), upper respiratory tract (10,86%) and gastrointestinal tract (7,60%). By analyzing the comorbidities, we noticed that the majority of the subjects (n=121, 65,76%) were known with a history of multiple chronic diseases, however the first group (I) showed a much higher percentage of subjects with two or more comorbidities (I: 70,24% vs. II: 28,09% vs. III: 1,65%). From the point of view of the outcome, we found a higher rate of Intensive Care Unit admission within the patient group nr. II, respectively a higher mortality rate in the same group. **Conclusions:** Infectious pathology is going through a dynamic change. The progressive increase in life expectancy may lead to a much-advanced biological aging of a person. The health system and the medical staff are facing new challenges by treating elderly patients.

Keywords: demographic aging, elderly, infections, comorbidities

BRAIN ABSCESS MANAGEMENT IN A NON-HIV CD4 T CELL LINEAGE IMMUNOSUPPRESSED PATIENT – CASE REPORT

Andreea Magdalena Ghibu¹, Elena-Simona Stefan¹, Victoria Birlutiu¹

¹ Department of Infectious Diseases, Lucian Blaga University of Sibiu

Background: Brain abscess is one of the potentially life-threatening conditions, requiring immediate diagnosis and treatment. It may occur post-traumatic, by contiguity or haematogenous dissemination. Aetiologically, bacteria are most frequently involved, followed by fungi and parasites, usually leading to severe outcome, especially in immunosuppressed patients. **Material and methods:** We present the case of a cutaneous-onset *Staphylococcus hominis* sepsis, complicated by brain abscesses in a young, cell lineage immunosuppressed non-HIV patient, hospitalized in Adult Infectious Diseases Clinic, in Sibiu County Emergency Hospital. **Results:** 41-year-old patient with known history of smoking and alcohol using was referred to the Emergency Department of Sibiu County Emergency Hospital presenting fever, myoclonus in the cephalic extremity, predominantly expressive mixt aphasia, frusted right hemiparesis, with a fluctuant lesion of the right mandibular angle and bullous lesions in both hips and abscesses of the right abdominal and gluteal area. Lumbar puncture was performed and showed no CSF changes in chemistry or cytology, while cerebral angio-CT examination raises the suspicion of septic-embolic encephalitis in the presence of cerebral, right parietal and bilateral supra- and infratentorial iodophilic micronodules. Complementary MRI investigation reveals bilateral supra- and infratentorial cerebral microabscesses and supratentorial areas of cerebritis. Ultrasound confirmed the following lesions: a right submandibular abscess, an abscess in the right gluteus muscle and just superior to it a subcutaneous abscess with tendency to fistulization. Blood cultures collected at admission were positive for *Staphylococcus hominis*, and coagulase-negative polymorphic white staphylococci were isolated from cultures taken from the abscessed areas. Serial brain MRI reveals left parietal subdural empyema and left fronto-parietal subarachnoid inflammatory/infectious lesions. In order to exclude Cysticercosis, serology for *Taenia solium* was performed with negative result, at the same time as

the CD4 T lymphocyte count, with a value of 363 cell/mm³. The follow-up visit reveals a positive clinical and biological outcome under treatment, and brain imaging reevaluation raises the suspicion of tuberculosis, refuted by BK microscopy and Quantiferon Gold TB. **Conclusions:** We are therefore facing a case of T cell lineage immunosuppression in a young, HIV seronegative patient with systemic staphylococcal infection, whose multidisciplinary team work was essential for its successful management.

Keywords: immunosuppression, chronic alcohol abuse, brain abscesses, *Staphylococcus hominis*, sepsis

CRYPTOSPORIDIUM ENTERITIS IN A PEDIATRIC PATIENT WITH CROHN'S DISEASE, UNDERGOING IMMUNOSUPPRESSIVE AND BIOLOGICAL THERAPY: A CASE REPORT

Maria Oana Săsăran¹, Ana-Maria-Roxana Koller², Andreea Bianca Stoica², Ana Stan-Muntean², Cristian Dan Mărginean², Oana Mărginean²

¹ Department of Pediatrics III, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Cryptosporidiosis is an opportunistic parasitic infection which can be transmitted to humans from animals, contaminated food or water. Although in immunocompetent hosts the infection causes mild symptoms, with a self-limited evolution, immunocompromised individuals can develop persistent, watery diarrhea as well as dyspeptic symptoms, such as nausea and vomiting. We hereby report a case of a 10-year-old girl previously known with Crohn's disease, undergoing immunosuppressive and biological treatment, in whom an enteric infection with *Cryptosporidium* complicated the disease evolution, mimicking a relapse of the disease. **Material and methods:** The patient, diagnosed with Crohn's disease more than two years prior to the symptom onset, presented a sudden increase in number of watery stools, part of which contained fresh blood, and intermittent colicky abdominal pain. At the time of the presentation, the patient was under immunosuppressive therapy with azathioprine, small prednisone dose, gradually tapered from the latest relapse and undergoing periodic biological therapy with Infliximab. The first approach before considering a relapse of the baseline disorder was to rule out an infectious cause of the symptoms. Therefore, a stool culture was performed, which was negative for *Escherichia coli*, *Salmonella*, *Yersinia*, *Shigella* and *Campylobacter jejuni*, as well as stool testing for *Clostridium difficile* (cultivation and rapid exotoxin testing) which was negative. **Results:** In the continuous search for an infectious cause, a PCR stool multiplex panel was employed, which tested for 21 different etiological bacterial, fungal and parasitic agents. The result revealed an infection with *Cryptosporidium* enteritis. Given the unavailability of nitazoxanide, the standard etiological treatment in our country, treatment with oral azithromycin for three days was recommended, in accordance with the national guidelines. The evolution of the patient was favorable, with remission of symptoms. The stool PCR multiplex panel was repeated two weeks after treatment finalization, with negative results. **Conclusions:** In accordance with previous literature data, this case report highlights the need to search for opportunistic infections in children with inflammatory bowel disease (IBD), who are under immunosuppressive and/or biologic therapy. Nevertheless, *Cryptosporidium* can mimic, as well as trigger an IBD flare and requires prompt treatment in immunosuppressed patients with persistent symptoms.

Keywords: *Cryptosporidium*, enteritis, Crohn's disease, child, immunosuppressed

OPPORTUNISTIC INFECTIONS IN PEDIATRIC HEMATO-ONCOLOGY – CASE REPORT

Andreea Ligia Dincă¹

¹ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Acute Lymphoblastic Leukemia (ALL) is the most common form of cancer among children, characterized by an uncontrolled proliferation of lymphoblasts. Treatment for ALL involves intensive chemotherapy, which induces a state of severe immunosuppression, increasing the risk of serious infections. This case describes the infectious complications in a pediatric patient with ALL, thus highlighting the challenges and measures needed to effectively manage these infections. **Material and methods:** We report the case of a 6-year-old female patient, diagnosed with High Risk ALL in October 2022. Although initially progressing well, the patient presented multiple infectious complications throughout treatment. **Results:** After 5 months from initiation of maintenance therapy, the patient presented with signs of respiratory distress and significant hematological disorders. Despite the initial radiological appearance that was suggestive of bronchopneumonia, under combined broad-spectrum antibiotic therapy, the evolution was unfavorable. For the differential diagnosis, the GeneXpert MTB/RIF test was performed -

negative, and the multiplex PCR respiratory panel, which tested positive for Rhinovirus infection; although intensive supportive treatment was instituted, the patient died within 2 days. **Conclusions:** This case highlights the high risk of severe, frequently opportunistic, infectious complications in the pediatric oncology patient. Even if the Rhinovirus infection is frequently asymptomatic or minimally symptomatic, and has a self-limiting character, its importance as a possible etiological agent of a severe pathology cannot be neglected.

Keywords: leukemia, immunodepression, Rhinovirus, pediatric, infections

APPROACHING CRITICALLY ILL INFECTIOUS PATIENT: INFECTIONS IN THE PEDIATRIC POPULATION

NEISSERIA MENINGITIDIS – AN INNOCUOUS GERM

Alexandra Rotaru¹, Bianca Bălaș-Maftei¹, Carmen Elena Florea¹, Carmen-Doina Manciu¹

¹ Department of Infectious Diseases, Grigore T. Popa University of Medicine and Pharmacy, Iasi

Background: One of the invasive bacterial disease can be produce by Neisseria meningitidis. Despite vaccination programs, meningococcal infections represent a major public health problem. **Material and methods:** This scientific paper represents a retrospective observational study of patients admitted to the Clinical Hospital for Infectious Diseases "Sf. Parascheva", Iasi in the period 2018-2024. The aim of this study was to evaluate the Stiehm-Damrosch/Nicklasson severity prognostic score on 18 patients who met the selection criteria. **Results:** The prognostic score in all 18 hospitalized patients was greater than 3, wich highlighted the degree of severity. One of the 18 patients had a fulminant evolution of the disease and died within the first hours of admission. The age of the patients varied between 3 months and 18 years. Petechial eruptions were present in 14 patients. All patients showed more than 20 nuclear elements in the cerebrospinal fluid. Trombocytopenia was present in 2 patients and the prognostic in the case of 3 patients being 6. The average lengh of the hospitalization was 15 days. **Conclusions:** Meningococemia is one of the most life- threatening disease. This is the main reason why the diagnosis and treatment must be efficient and adequate.

Keywords: prognostic score, meningococemia, Neisseria meningitidis, purpuric rash

CHALLENGES AND INSIGHTS: A CASE REPORT OF AN ACUTE MENINGOENCEPHALITIS WITH STREPTOCOCCUS PNEUMONIAE FOLLOWED BY COMPLICATIONS

Ana Stan-Muntean¹, Ana-Maria-Roxana Koller¹, Maria Oana Săsăran¹, Oana Mărginean¹

¹ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Meningoencephalitis is a severe condition, particularly challenging in pediatric patients, and requires prompt diagnosis and management. We present a case of an acute Pneumococcal meningoencephalitis in a 6-month-old infant with incomplete vaccination history, with the purpose of highlighting the diagnostic challenges and the possible invalidating complications of this conditions. **Material and methods:** The patient presented to the emergency department with high fever, altered mental status, bulging fontanelle and respiratory distress. An infection of the central nervous system was suspected. Therefore, a CT scan of the head was performed, which revealed ventriculomegaly and bilateral otomastoiditis. The lumbar puncture was initially delayed, due to compelling modifications of the coagulogramme (INR: 1.63). Empiric antibiotherapy (Cefort, Ampicillin, and Vancomycin) and antiviral therapy (Acyclovir) was started, as well as depletion therapy. **Results:** Cerebro-spinal fluid (CSF) analysis was afterwards performed, and showed elevated leukocytes and protein levels. The CSF culture was negative, but *Streptococcus pneumoniae* was detected through PCR multiplex. Treatment adjustments were made based on infectious diseases consultation, targeted antibiotherapy with Ceftriaxone was conducted, leading to clinical improvement. However, the patient developed two serious complications of the disease, hydrocephalus and acute left hemiparesis. Therefore, after etiological treatment was finalized, the patient was transferred to the neuro-psychiatric clinic for rehabilitation. **Conclusions:** Our case underscores the importance of early recognition and aggressive management of acute meningoencephalitis in infants, particularly those with incomplete vaccination status. Timely initiation of appropriate antibiotic therapy, in conjunction with supportive measures, can improve outcomes in these challenging cases, but may not prevent potential invalidating complications.

Keywords: meningoencephalitis, otomastoiditis, Streptococcus pneumoniae infection, pediatric patient, treatment

UNEXPECTED EVOLUTION OF A CEREBRAL ABSCESS IN A 17-YEAR-OLD PATIENT WITH CYANOTIC CONGENITAL HEART DISEASE – FROM BAD TO WORSE

Flavia-Cristina Al-Akel¹, Andreea-Georgiana Comsulea², Matei Iurea², Amalia Fagarasan³, Simina Elena Rusu-Ghiragosian³

¹ Department of Pathophysiology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² -, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

³ Department of Pediatrics III, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Cyanotic congenital heart disease (CHD) is known to associate a higher risk for the development of

brain abscess due to low saturations, increased blood viscosity, vascular ischemia, the presence of a right-left shunt allowing respiratory tract microorganisms redirection towards the cerebral circulation, and a general predisposition for systemic and respiratory infections due to repeated hospitalizations, living conditions and other disease-associated comorbidities. **Material and methods:** Case presentation: We present the case of a 17-year-old female patient with tricuspid atresia with normally related great vessels, Bidirectional PCPC (partial cavo-pulmonary connection), chronic cyanosis, and moderate neuropsychological mental retardation suffering from apparent maxillary and ethmoid sinusitis associated with severe headaches, nausea, several vomiting episodes, and progressive mental state alteration over the course of 2 days on symptomatic treatment. After the onset of meningeal irritation symptoms, CT indicated left parieto-temporal abscess with 11 mm midline structure displacement. Cerebral MRI confirmed a 44/43/33 mm lesion with important perilesional edema. Neurosurgical evacuation of the abscess was performed with satisfactory evolution. Bacteriological exams of the abscess, blood, stool, and naso-pharyngeal exudate were negative, probably linked to prior antibiotic therapy. Successful emergency reintervention was performed 3 days later due to severe neurological alteration (GCS 5) caused by left parietal intraparenchymal hematoma. Following reintervention, the patient developed one generalized tonic-clonic seizure requiring introduction of anti-convulsant therapy (Levetiracetam). Moreover, patient presented generalized edema and abdominal pain, with moderate ascites, 54 mm right pleural effusion, 19 mm left pleural effusion strongly suggesting heart failure decompensation which required patient transfer to Cardiovascular ICU for pleural drainage and medical treatment (Milrinone, IV Furosemide, Albumin and Heparin). During the pleural drainage, the patient developed apnea and asystole for which successful resuscitation was performed with favorable evolution and patient discharge two months after first presentation. Regardless of the neurosurgical complications, the patient presented excellent short-term outcome with no motor or neurological deficit. **Results:** Brain abscess imposes a significant risk in patients with cyanotic CHD due to multifactorial causes, leading to potential long-term complications. **Conclusions:** Central nervous system infections are possible in pediatric population with cyanotic congenital heart disease, therefore multidisciplinary management and immediate intervention are essential for optimal clinical results.

Keywords: brain abscess, pediatric, cyanotic, congenital heart disease

HENOCH- SCHÖNLEIN PURPURA WITH ATYPICAL ONSET, MIMICKING A DIGESTIVE INFECTION IN A TEENAGER - CASE PRESENTATION

Oana Marginean¹, Lorena Elena Meliț¹, Noemi Ballo¹, Daniela Ciobanu², Ana-Maria-Roxana Koller²

¹ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² other, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Henoch-Schönlein purpura (HSP) is a small-vessel vasculitis, appearing most commonly in children, characterized by generalized vasculitis affecting the skin (palpable purpura), the gastrointestinal tract, the kidney, as well as the joints. This condition very rarely affects the lungs and the central nervous system. Gastrointestinal manifestations appear in 50% - 75% patients and are characterized by colicky abdominal pain, vomiting and gastrointestinal hemorrhage and precede the appearance of skin lesions in 10%-15% patients. The aim of this paper was to highlight the digestive onset of an HSP and the diagnostic challenges in these types of cases.

Material and methods: We present the case of an 17-year-old male patient admitted to our clinic for colicky abdominal pain, vomiting and anorexia, with symptom onset one week before admittance. **Results:** Clinical examination at admission revealed a general influenced status, pale skin and colicky abdominal pain. The patient had been previously admitted to the Infectious Diseases Clinic for suspicion of acute gastroenteritis. Stool examinations conducted were negative, but the occult bleeding test and acute phase reactants were positive. The abdominal computed tomography performed during that period pointed out free peritoneal fluid in the rectovesical recess, jejunal thickened wall terminal ileitis and increased mesenteric lymph nodes. Therefore, an inflammatory bowel disease was suspected and corticosteroid therapy was initiated. Due to the very intense abdominal colicky pain, vomiting and melena, an acute surgical abdomen was suspected and an exploratory laparotomy was performed, which revealed inflammatory colitis and ileitis. Laboratory tests revealed leukocytosis with granulocytosis, high fibrinogen, CRP and ESR levels, coagulogramme abnormalities. Seven days later petechiae appeared, which drove the diagnosis towards a HSP with abdominal onset. The disease course was favorable, but the evolution as hindered by proteinuria, high cholesterol, triglyceride and D-dimers levels. Therapy consisted of Solu-Medrol, antibiotic treatment, vascular trophic therapy, anticoagulant therapy with a favorable evolution and total recovery, inclusive of the renal function. **Conclusions:** HSP is a common disease in children, rarely with abdominal onset before skin involvement, which can cause diagnostic errors such as acute gastroenteritis,

inflammatory bowel syndrome or even acute surgical abdomen. Early diagnosis and appropriate treatment are key to a favorable prognosis.

Keywords: child, Henoch-Schönlein purpura, gastrointestinal manifestations

EPSTEIN-BARR VIRUS AS A TRIGGER FOR HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS IN THE PEDIATRIC POPULATION- CASE PRESENTATION

Nicoleta-Ana Tomsa¹, Oana Marginean², Noemi Ballo², Lorena Elena Melit²

¹ Department of Pediatrics I, County Emergency Clinical Hospital Târgu Mureș

² Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Hemophagocytic lymphohistiocytosis (HLH) is a rare and potentially fatal hyperinflammatory syndrome characterized by dysregulation of the immune system, with excessive activation of macrophages and cytotoxic T cells. The most common trigger of the secondary form is Epstein-Barr virus (EBV-HLH). The aim of this paper was to highlight the complications that may arise following an Epstein-Barr virus infection. **Material and methods:** We present the case of an 11-year-old male patient admitted to our clinic for persistent fever, jaundiced skin, and secondary generalized polymorphic rash. **Results:** Clinical examination at admission revealed a general influenced status, fever, generalized maculopapular rash, facial edema, jaundiced, warm skin, bilateral painless cervical lymphadenopathies, abdominal tenderness at palpation in the epigastrium and right flank, enlarged liver (3cm). We mention that the patient was admitted to the Infectious Diseases Clinic with a diagnosis of infectious mononucleosis, and the rash appeared after the administration of contrast substance for abdominal computed tomography. Thus, we interpreted the manifestations in the context of a Stevens-Johnson syndrome and initiated corticosteroid therapy and intravenous immunoglobulin. Laboratory tests revealed leukopenia with lymphopenia, microcytic hypochromic anemia, coagulogram abnormalities, significantly elevated D-dimers, hypoalbuminemia, hyponatremia, increased transaminase levels, direct hyperbilirubinemia, hyperferritinemia, hypertriglyceridemia, and hypofibrinogenemia. We associated antibiotic treatment, intravenous albumin, hepatoprotective agents, fresh frozen plasma, and erythrocyte transfusion. We ruled out other viral causes. Seriated analyses showed the onset of pancytopenia, a marked decrease in fibrinogen along with an increase in D-dimers, triglycerides, transaminases, bilirubin, and ferritin. CD 25 level was significantly elevated. Thus, we raised suspicion of HLH, confirmed by bone marrow puncture showing numerous macrophages with hemophagocytosis. We initiated treatment with Etoposide, and the patient was transferred to a specialized center for HLH treatment. **Conclusions:** HLH is a rare but often fatal syndrome; however, early diagnosis and appropriate treatment are key to a favorable prognosis.

Keywords: child, EBV, HLH, ferritin, IL-2

COMPLEX AORTIC VALVULAR PATHOLOGY, FROM MALFORMATION TO INFECTION- A PAEDIATRIC CASE REPORT

Samuel-Andrei Dunăreanu¹, Ana-Sorina Pașc², Amalia Făgărășan³, Andreea Bianca Stoica⁴

¹ Pediatric Cardiology, Emergency Institute for Cardiovascular Diseases and Transplantation of Targu Mures

² other, Emergency Institute for Cardiovascular Diseases and Transplantation of Targu Mures

³ Department of Pediatrics III, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

⁴ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Congenital aortic valve disease is a life-long condition that can require multiple interventions associating long term complications which affect the quality of life. **Material and methods:** We present the case of a 15 year old male patient associating coarctation of the aorta and bicuspid aortic valve (BAV) as congenital heart defects who underwent balloon dilation angioplasty at 6 months of age as his first interventional treatment without complications. In the course of the disease, significant aortic insufficiency, moderate aortic stenosis and annuloaortic ectasia developed against the background of a malformed aortic valve for which he receives surgical treatment at 10 years of age with the implantation of a BioIntegral biological valve, size 23, and plasty of the ascending aorta with diameter reduction. In evolution, he developed as late postsurgery complications prosthetic valve endocarditis meeting one major and at least 3 minor Duke criteria with increased inflammatory markers, receiving 2 month intravenous antibiotics but without isolating the infectious agent, stroke with neurological sequelae and dilatation of the ascending aorta. In february 2024, at 14 years of age patient has been reevaluated echocardiographic, electrocardiographic and imagistic- Angio CT of the heart, being diagnosed with severe dysfunction of the prosthetic valve with stenosis and significant regurgitation, ascending aorta ectasia and dilated

cardiomyopathy of the left ventricle. Due to the fact that the patient presented clinical signs of important heart failure, in this context he was accepted for the replacement of the tissue valvular prosthetics with a mechanical prosthetic valve. **Results:** After performing the replacement of the biological valve with a mechanical prosthetic Cardiomedics Supra-Annular Top Hat No 23, patient presented improved effort tolerance and ameliorated systolic-diastolic function of the heart. **Conclusions:** Treatment of heart valve diseases requires careful monitoring to prevent long-term complications through good interdisciplinary collaboration as well as compliance of the patient with medication.

Keywords: prosthetic valve endocarditis, annuloaortic ectasia, aortic regurgitation, aortic stenosis, mechanical valve

PERITONITIS MIMICKING THE ONSET OF ACUTE GASTROENTERITIS IN A TEENAGER

Andreea Bianca Stoica¹, Samuel-Andrei Dunăreanu², Maria Oana Săsăran², Oana Mărginean¹

¹ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Department of Pediatrics III, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Abdominal pain is one of the most common pediatric emergencies, requiring urgent evaluation. The challenge for the pediatrician is to identify patients with abdominal pain who have life-threatening conditions.

Material and methods: We present the case of a 14-year-old adolescent admitted to our unit with fever, abdominal pain, and constipation. Complementary tests revealed leukocytosis, elevated acute phase reactants, and hyponatremia. In evolution, the patient developed diarrhea. Biochemical stool analysis was negative. An abdominal ultrasound was performed, which showed marked dilatation of the intestinal anseae and free fluid within the Douglas pouch as well as between the intestinal anseae. A pediatric surgical evaluation was performed, resulting in the decision to transfer the patient. Laparoscopy revealed appendicitis with peritonitis and purulent peritoneal fluid. Bacteriological examination of the peritoneal fluid was positive for *Bacteroides fragilis*. **Results:** After performing appendectomy with an open stump, the clinical course was favorable. **Conclusions:** In conclusion, it is essential to remember that an acute surgical abdomen can mimic diarrheal disease.

Keywords: peritonitis, abdominal pain, pediatric emergencies, *Bacteroides fragilis*, teenager

SEVERE INFECTIONS OF THE CENTRAL NERVOUS SYSTEM

COMPLICATIONS OF CNS TUBERCULOSIS IN AN APPARENTLY IMMUNOCOMPETENT HOST

Rareş Luca¹, Simona Tetrarov¹, Cosmina Radu¹, Corina Oprea², Amadrea Grecea³, Cristina Piron³, Simin-Aysel Florescu⁴

¹ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

² Department of Microbiology, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

³ Department of Intensive Care in Infectious Diseases, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases

⁴ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: In 2022, an estimated 10.6 million people were diagnosed with tuberculosis, with a neurological complication rate of 1-5%. In 2021, ECDC reported approximately 160,000 cases of tuberculosis in Europe - a decrease of about 23% compared to 2019. Romania's reported infection rate is higher than the European average of 25 per 100,000, with about 8,000 cases in 2021 and an estimated rate of 10% of antibacterial resistance (RR-MDR). **Material and methods:** We report the case of a 36-year-old female patient, transferred from a territorial pneumology hospital for additional investigation of a suspected tuberculous meningoencephalitis. In October 2023 she suffered a spontaneous abortion followed by postabortal endometritis and presented with fever and wet cough to the gynecological check-up. Referred to the pulmonologist, she was diagnosed with miliary tuberculosis and began standard treatment per the national protocol. However, despite requesting to be discharged early and continue treatment at home, she returned to the clinic presenting neurological symptoms, prompting transfer to our hospital. **Results:** Upon transfer, the patient was in severe condition with focal neurological deficits and meningeal syndrome, additionally presenting respiratory symptoms. Laboratory tests show inflammatory response with leukocytosis, neutrophilia, and elevated C-reactive protein levels; cerebral imaging reveals multiple hypodense lesions, and the spinal tap drains yellowish CSF with elevated protein levels and *Mycobacterium tuberculosis* detection upon PCR testing. Treatment is resumed with the first-line antitubercular drugs, alongside corticosteroids - including methylprednisolone pulse-therapy, with close clinical and paraclinical monitoring and constant therapeutic adjustments. The necessity of advanced care measures in the ICU and additional infections required progressive antibiotic escalation, though patient evolution is influenced by aggravating cerebral lesions and invasive fungal infection with *Trichosporon asahii*. **Conclusions:** Swift intervention upon detection of early warning signs and rigorous monitoring are vital in the management of *Mycobacterium tuberculosis* infections. Despite available resources, systemic complications paired with treatment-related side effects raise significant therapeutic challenges, potentially leading to fatal outcomes.

Keywords: tuberculosis, immunocompetent, abortion, CNS, meningoencephalitis

CHALLENGES OF THE DIFFERENTIAL DIAGNOSIS IN THE BORDER AREA OF INFECTOLOGY AND NEUROLOGY

Szabolcs Szatmari¹, Erika Jakab², Krisztina Kelemen³, Tihamer Mate⁴, Jozsef Szasz¹

¹ Department of Neurology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureş

² Neurology, Noe Psihocenter S.R.L.

³ Department of Physiology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureş

⁴ Department of Neurology, Mureş County Emergency Clinical Hospital

Background: Specialists commonly encounter a variety of diagnostic and therapeutic challenges when treating patients with infectious diseases presenting neurological signs or complications. Similarly, patients with neurological disorders complicated by infectious causes or comorbidities present distinctive clinical considerations for specialists in the field. Beyond meningitis and encephalitis, everyday examples are stroke or polyradiculitis in patients with viral or bacterial infections, as well as pneumonia or urinary tract infections in stroke patients.

Material and methods: All these situations presume a good collaboration between the specialists working in different fields of medicine, but some unusual cases call for the participants to cooperate even more closely.

Results: When suspecting an inflammatory etiology of the neurological disorder, it becomes essential to conduct a thorough assessment for relevant infectious agents. Additionally, detailed investigations are warranted to explore the relatively common autoimmune origins as well. We demonstrate these aspects with case presentations where the neurological syndromes, such as painful ophthalmoplegia or progressive cerebellar signs respectively the pathological neuroimaging picture with cerebral microbleeds raised difficult to resolve questions. The intricate landscape of infectious and inflammatory processes in neurological pathology underscores the importance of systematic approach. All the clinical, laboratory and imaging findings must be integrated, to explore the differential

diagnosis and optimize the patient care. **Conclusions:** Our very complex cases, some of them with a relatively long evolution involved not only the infectious disease specialist and the neurologist but also a multidisciplinary team sometimes with questions that remained open and other times with good outcomes for the patient.

Keywords: neuroinfection, painful ophtalmoplegia, cerebellar syndrome, cerebral microbleeds

STREPTOCOCCUS PNEUMONIAE MENINGOENCEPHALITIS COMPLICATED BY SUBDURAL EMPYEMA: A CASE REPORT

Ervin-Jozsef Susanyi¹, Ottilia Dimeny¹, Katalin Kollos-Pusok¹

¹ Department of Infectious Diseases, Miercurea-Ciuc, Harghita County Emergency Hospital

Background: Subdural empyema is a known, but uncommon complication of bacterial meningitis. Subdural empyema should be suspected when a patient does not respond to antibiotic therapy or becomes neurologically worse. Computer tomography (CT) scans with contrast often show increased subdural collections when an empyema is present. We present a case of bacterial meningoencephalitis complicated by subdural empyema.

Material and methods: The current case report presents a female patient, admitted to the Infectious Diseases Department, Miercurea-Ciuc, Harghita County Emergency Hospital with prolonged febrile syndrome. **Results:** A 53-year-old female with no significant medical history presented to the emergency department with fever, chill, photophobia, vomiting and generalized weakness progressing for one week. Physical examination revealed the patient to be lethargic with decreased breath sounds at the right lung base, and meningeal irritation signs. Emergency cranio-cerebral CT scan does not describe acute injuries. Laboratory results showed elevated inflammatory markers, cerebrospinal fluid (CSF) analysis indicated abnormalities- *Streptococcus pneumoniae* antigen was identified. Subsequently, *Streptococcus pneumoniae* was isolated from CSF. Antibiotics were appropriately adjusted based on the culture sensitivity results. On the 13th day of hospitalization the patient's condition worsens suddenly, with acute onset of fronto-parietal headache, develops nausea and vomiting. Neurological examinations assessment show nervous involvement: left brachial motor deficit, left hemiparesis, neck stiffness. Native CT revealed subdural right fronto-parietal empyema. Following the treatment, the patient showed clinical and biological improvement and was discharged after 30 days of hospitalization. The patient recovered with the resolution of neurological deficits. **Conclusions:** Subdural empyema is considered a particularly severe complication because of the potential for rapid neurological deterioration and increased morbidity. This case report highlights the importance of early diagnosis and comprehensive management in bacterial meningitis cases.

Keywords: empyema, meningoencephalitis, recovery, *Streptococcus pneumoniae*

CHALLENGES IN THE DIAGNOSIS OF TUBERCULOUS MENINGITIS

Raluca Patrascu¹, Teodora Gadea¹, Adriana Hristea¹

¹ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: Tuberculous meningitis (TBM) is the most severe form of extrapulmonary tuberculosis having a high mortality rate of 30-40%, despite the specific treatment and is associated with long-term sequelae. People living with HIV have a higher mortality rate of >60%. The diagnosis of TBM is difficult. Cerebrospinal fluid smear microscopy is usually available, but its sensitivity is low. Culture methods remain the gold-standard for the diagnosis of MTB, with a higher sensitivity than microscopy (50-70%), but can take several weeks (delaying the diagnosis and contributing to mortality). Molecular techniques allow additional rifampicin susceptibility testing and are valuable when positive, but a negative Xpert Ultra or Xpert test does not rule out TBM and access to these techniques can be limited. Xpert Ultra was not statistically superior to Xpert for the diagnosis of TBM in HIV-uninfected vs HIV-infected adults. **Material and methods:** We analyzed 90 TBM patients (44 HIV-positive, 46 HIV-negative), diagnosed between January 2012 and December 2023 in our institution, divided according to Marais' diagnostic scoring indexes (Lancet Infect Dis 2010) in 56(62%) definite, 18(20%) probable and 16(18%) possible TBM, applying two models developed to differentiate TBM from viral meningitis (Hristea et al. Int J Tuberc Lung Dis 2012, using four variables) and from bacterial meningitis (Thwaites et al. Lancet 2002, using five variables). We also applied a recently published model (Liu et al. BMC Infectious Diseases 2023) using a nomogram with six variables for predicting the probability of TBM (three of the variables being similar with the score differentiating TBM from viral meningitis). **Results:** Thwaites et al: Area under the curve (AUC) 0.567; Positive Predictive Value (PPV) (%): all patients 67.5; HIV-positive 69.2; HIV-negative 65.9; Negative Predictive Value (NPV) (%): all

patients 0; HIV-positive 0; HIV-negative 0. Hristea et al: AUC 0.634; PPV (%): all patients 69.4; HIV-positive 69.7; HIV-negative 69.2; NPV (%): all patients 40; HIV-positive 28.6; HIV-negative 66.7; Liu et al: >90 % TBM probability (≥ 29 points): all patients 55(61); HIV-positive 25(57); HIV-negative 32(70) and >95% TBM probability (≥ 31 points): all patients 54(60); HIV-positive 24(55); HIV-negative 31(67) **Conclusions:** Clinicians should use a combination of diagnostic approaches, including diagnostic models based on a combination of different indicators.

Keywords: tuberculous meningitis, diagnostic challenges, diagnostic prediction model

SPONDYLODISCITIS COMPLICATED WITH MENINGITIS CAUSED BY STREPTOCOCCUS GROUP C - CASE REPORT

Anca Elena Dudușche¹, Livia Dragonu¹, Lucian Giubelan¹, Andreea Cristina Stoian¹, Andreea Marcu¹, Florentina Dumitrescu¹

¹ Department of Infectious Diseases, University of Medicine and Pharmacy of Craiova

Background: Group C beta-hemolytic streptococcus species have a relatively low infectious potential, with most cases recorded in persons associated with underlying pathologies (diabetes, malignancy, alcoholism, immunosuppression). Streptococcus species have had little relevance as causative agents of vertebral osteomyelitis. **Material and methods:** We present the case of a patient with spondylodiscitis complicated with meningitis that occurred in the context of an invasive infection with group C beta-hemolytic Streptococcus. **Results:** A 77-year-old rural patient with a history of cardiac pathology (atrial fibrillation, heart failure, carotid atherosclerosis), admitted to the Craiova Infectious Diseases Clinic with suspicion of spondylodiscitis for high fever and intense pain in the lumbar spine with analgesia immobilization. Under empiric antibiotic treatment (Vancomycin associated with ceftriaxone) in the next 24 hours, agitation and a confusional state is added, requiring lumbar puncture. Microbiological investigations were carried out, in two blood cultures isolating group C beta-hemolytic Streptococcus (sensitive to Penicillin, Ceftriaxone, and macrolides). The MRI examination highlighted the presence of edema in the L1-L2 vertebral plates and gadophilia at the level of the right psoas muscle, adjacent to the vertebral bodies at a distance of 62 mm, against the background of marked spondylodiscitic changes. Under antibiotic treatment with Ceftriaxone, the normalization of the cytological and biochemical appearance of the CSF was recorded after 14 days. **Conclusions:** Invasive infections caused by group C streptococcus with osteovertebral and meningeal damage are rare. Their incidence can be reconsidered especially in elderly patients with underlying pathologies. The evolution under antibiotic treatment was favorable.

Keywords: Group C Streptococcus, spondylodiscitis, meningitis

SEPTICEMIA AND MENINGITIS DUE TO LISTERIA MONOCYTOGENES IN AN IMMUNOCOMPETENT ADULT PATIENT: CASE REPORT

Norbert Kovács¹, Akos Vince Andrejkovits², Anca-Meda Văsieșiu²

¹ Department of Infectious Diseases, Mureș County Clinical Hospital

² Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: *Listeria monocytogenes* is a Gram-positive bacterium that can cause infection in humans through the ingestion of contaminated food. It is particularly concerning for individuals with weakened immune systems, pregnant women, newborns, and the elderly, as they are more susceptible to severe illness or complications. Clinically can range from a flu-like illness to sepsis or meningoencephalitis, with high mortality rates. **Material and methods:** Case report. A 58-year-old male patient with pulmonary tuberculosis in the personal medical history, developed fever, headache and chest pain, 24 hours prior hospital admission associated with mild confusion, dizziness and vertigo. Neurological examination revealed positive Romberg test to the right, with positive Brudzinski and Kernig signs, without any focal neurologic deficit. Paraclinical investigations showed leukocytosis with neutrophilia, slightly increased C reactive protein, normal cranial CT, lumbar puncture revealed an opalescent cerebrospinal fluid (CSF), high pleocytosis (>682 cells/uL), increased protein level (3558 mg/dL), decreased glucose level (26 mg/dL). Treatment with ampicillin as initial empirical monotherapy was started in association with corticosteroids, depletive and analgesics. *L. monocytogenes* was identified from both the CSF and a blood culture. Based on antibiogram, and because the patient presented prolonged fever, with persistent neurological signs, meropenem was associated. The repeated lumbar puncture after two weeks of treatment still revealed pleocytosis (528 cells), with negative bacterial cultures. **Results:** The patient's headache and dizziness persisted for two weeks. After 21 days he was discharged in good general condition, without neurological signs or any symptoms.

Contrast-enhanced brain MRI exam for follow-up described minimal cerebral atrophy, with no other pathological modifications. **Conclusions:** *L. monocytogenes* should be suspected in immunocompetent adults with bacterial meningitis whose conditions do not improve with empirical treatment. In our case report, even with double antibiotic therapy, the patient's symptoms persisted for two weeks, underscoring the fact that treating a *Listeria*-caused disease can become challenging, especially when the patient has a clinically long-lasting form of the disease.

Keywords: meningitis, neurolisteriosis, sepsis, *Listeria monocytogenes*

INFECTIONS OF THE CENTRAL NERVOUS SYSTEM IN ICU-SCBI: EXTREMELY EXPENSIVE PATHOLOGY

Lucia Herbel¹

¹, Clinical Hospital of Infectious Diseases ,Cluj Napoca

Background: CNS infections are a subject of interest due to the high costs of treatment, the prolonged duration of hospitalization and the unpredictable evolution. It is associated with increased morbidity and mortality, high rate of long-term neurological sequelae and increased risk of further development of neurodegenerative disorders.

Material and methods: Retrospective study. Demographic data, etiology, APACHE II and SOFA score, case evolution were extracted and analyzed from patients files and the electronic records. **Results:** 32 patients with acute CNS infection were admitted to SCBI. 9 patients (11 disease episodes) required hospitalization in the ICU (28.12%). 5 were men and 4 women; The average age was 56 years (34 - 77 years). The Apache II score at admission was 17.4; SOFA = 6.82 OMEGA RO = 534.7. The average duration of hospitalization in the ICU = 28 days (in total 307 days of hospitalization in the ICU). We had 6 cases diagnosed by the CSF multiplex PCR method: 3 cases with *Streptococcus pneumoniae*, 1 with *Streptococcus pyogenes*, 1 with *Cryptococcus neoformans*, 1 case of HIV encephalitis. CSF culture was positive in 3 cases: 1 *Streptococcus pneumoniae* and the 2 cases of nosocomial meningitis (*E. coli* and *Klebsiella pneumoniae*). Blood cultures were positive with *E. coli*, *Klebsiella pneumoniae*, *Streptococcus pneumoniae* and *Streptococcus suis*. *Streptococcus pneumoniae* urinary antigen was positive in all cases confirmed by CSF multiplex PCR and culture. All patients benefited from treatment according to the protocol. Evolution: 7 patients required OTI+MV, totaling 4.263 hours of MV. For 2 patients we performed CVVHDF. 2 patients required tracheostomy. 3 patients died (33.33%). **Conclusions:** Average cost /patient with CNS infections. = 116,219.32 Ron (23,244 euro) Average cost / patient in ICU = 18,900 Ron (3,780 euro) CSF multiplex PCR panels are useful for early etiologic diagnosis. Urinary pneumococcal antigen can guide the etiology. The cases required a prolonged hospitalization in the ICU even if the diagnosis and treatment were quickly carried out. Deaths occurred in 33% of patients, despite the correct treatment instituted. Central nervous system infections represent conditions with an unfavorable prognosis despite access to rapid diagnostic methods, adapted therapy and support of vital functions in ICU.

Keywords: CNS infections, Expensive Pathology, CSF multiplex PCR

EMERGING INFECTIONS

BEYOND THE RASH: RESPIRATORY FAILURE IN MEASLES - A CASE SERIES

Norbert Kovács¹, Ákos Vince Andrejkovits², Anca-Meda Văsieșiu²

¹ Department of Infectious Diseases, Mureș County Clinical Hospital

² Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: The measles outbreak in Romania has been ongoing since February 2023. More than 70% of measles cases from European Union (EU) were reported from Romania, with 6 fatal outcomes. The main complications of measles are: otitis media (7-9%), pneumonia (5%), encephalitis (0,1%) and bronchitis. According to some studies and reports, around 10% to 30% of measles cases may require hospitalization, but only a smaller percentage of those hospitalized cases may require intensive care treatment. **Material and methods:** Case series.

Results: The first case was a 2-year-old female patient, without known comorbidities, with incomplete vaccination schedule. Symptoms appeared approximately 2 days prior admission, including fever (38,5°C), rhinorrhea, conjunctival congestion, respiratory catarrhal symptoms, diarrhea, and macular-erythematous rash on the skin. Despite antibiotic, bronchodilator and steroid anti-inflammatory treatment, developed respiratory failure, chest CT described bilateral pulmonary infiltrations. The patient was transferred to the Intensive Care Unit (ICU) for 3 days. Outcome was favorable, and he was discharged hemodynamically and respiratory stable. The second case involved an 8-month-old female patient, also unvaccinated, presenting with similar symptoms to the previous case. Respiratory functions suddenly deteriorated on the 6th day of the illness, accompanied by dysphonia, desaturation and bilateral pulmonary crackles. For the respiratory distress syndrome, the patient was transferred to the ICU, the outcome was slightly favorable, but the mother requested discharge against medical advice after two days of ICU admission. The third case was a 2-year-old male child, admitted on the 4th day of the disease, with altered respiratory function, resulting in respiratory acidosis and bilateral pulmonary crackles. He received double antibiotic and corticosteroid treatment. After 2 days the patient required ICU transfer, for 2 days. On the 7th day he was discharged hemodynamically and respiratory stable. **Conclusions:** In these three cases all of them were previously healthy, unvaccinated for measles and with low socio-economic status. They developed severe respiratory failure on the 4-6th day of the disease. Outcome was favorable in 2 cases and one patient requested discharge after 7 days of admission in a better clinical condition. Community-wide immunization is the most effective way to prevent severe cases.

Keywords: measles, childhood, respiratory failure, intensive care

A NEW MEASLES OUTBREAK IN BRASOV COUNTY- A NEW CAUSE OF RESPIRATORY FAILURE

Ligia Rodina¹, Eveline -Roxana Bosnea², Anca Arhip², Diana Chiheri², Maria-Elena Cocuz³

¹ Department of Infectious Diseases, Clinical Hospital of Pneumology and Infectious Disease Brasov

² Department of Infectious Diseases, Clinical Hospital of Pneumophthisiology and Infectious Diseases, Brașov

³ Department of Infectious Diseases, Transylvania University of Brașov

Background: Measles, a highly contagious disease, remains a significant cause of morbidity and mortality among young children worldwide despite the availability of effective vaccines for the past four decades. **Material and methods:** The aim of this study is to identify the frequency of clinical and evolutionary characteristics of measles cases complicated with acute respiratory failure. A retrospective analysis was conducted on cases admitted for respiratory failure due to measles at the Clinical Hospital of Pneumology and Infectious Diseases from August 1, 2023, to March 31, 2024. The diagnosis of measles was made according to epidemiological, clinical, and serological criteria. **Results:** Out of 1456 cases hospitalized during this period with diverse complications due to measles, 125 patients experienced respiratory failure. Males accounted for 51,2% of patients, primarily within the urban population (56,8 %). Over 84% of affected children were under the age of five, and 40% were under 12 months old. Adults comprised 7,2% of cases. A concerning 86,4% were unvaccinated against measles, while 10% had unknown vaccination status, predominantly among those above 18 years old. The most common symptoms at admission included fever (100%) and poor feeding (71,2%), followed by difficulty of breathing (56,8 %), decreased oxygen saturation (54,4 %), cough (49,6 %), diarrhea (38,4%) and dysphonia in (12%). The most frequent respiratory complications were interstitial pneumonitis (77,6%), bacterial pneumonia (37,6 %), bronchiolitis (31,8%), laryngitis (4%), and pleural effusion (2,4%). *Haemophilus influenzae* and *Streptococcus pneumoniae* were the primary causes, with coinfections involving respiratory syncytial virus and flu A virus also observed. Additional complications included subclinical hepatitis (28%), stomatitis (20,8%), purulent conjunctivitis (6,4%), and keratitis (3%). Treatment modalities included antibiotics for all patients, 100% required oxygen, 97,6% received

corticotherapy and 44,8 % received vitamin A supplementation. The evolution was favourable in almost all cases, although eight children and two adults were transferred to the intensive care unit, and required intensive care support, two fatalities reported, both in infants. **Conclusions:** Clinicians should be aware of measles complications and treatment. Public health efforts should continue to focus on immunization, given the significant implications of measles infections for patients and healthcare systems.

Keywords: respiratory failure, measles, complications

NATURAL KILLER CELL LEVEL MODIFICATIONS IN ACUTE SARS-COV-2 INFECTION

Ákos Vince Andrejkovits¹, Adina Huțanu², Anca-Meda Văsieșiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Center for Advanced Medical and Pharmaceutical Research, Laboratory of Humoral Immunology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Natural killer(NK) cells are cytotoxic lymphocytes, important effectors of antiviral immunity. The modifications of NK cell distribution and effector function could be linked to disease severity, but can be influenced by several other factors. We aimed to evaluate dynamical changes of NK cell levels in acute COVID-19. **Material and methods:** We conducted a prospective study, that included 49 COVID-19 confirmed patients, admitted to the 1st Infectious Disease County Hospital Târgu Mureș, between November 2021 to March 2022. In our cohort the mean age were 71 years, 25(51.0%) females, 31(63.2%) developed severe COVID-19; major comorbidities were hypertension(75.5%) obesity(26.5%) and diabetes(18.3%), 14(28.5%) were vaccinated, 30(61.2%) received antiviral treatment, 9(18.3%) needed Intensive Care Unit(ICU) admission, 11(22.4%) patients died. We determined NK cell levels (absolute and in percentage) from peripheral blood by flow cytometry, at the day of admission and after 5 respectively 10 days of care. Dynamic NK cell level modifications were correlated with age, gender, comorbidities, length of stay, antiviral treatment, disease severity, ICU admission requirement, outcome. All statistical analyses were performed using SPSS Statistics v.25. **Results:** There were no positive correlations between NK level and age($p=0.766$). The percentage of NK cells were increased in male patients, but these modifications were not statistically significant. A significantly lower level of NK cell was found in obese patients, on the 5th day of care($p=0.007$). There were no significant differences between NK levels and length of stay. NK percentage determined on the 5th day were significantly lower in patients with antiviral treatment($p=0.018$). In severe cases a lower absolute NK cell level was found in dynamical determination, statistically significant on the 5th day($p=0.012$). The number of NK cells were not significantly modified among patients requiring ICU admission. Based on outcome NK levels were lower with statistically significant differences on the 5th day of admission($p=0.037$). **Conclusions:** In acute SARS-CoV-2 infection it seems to be a positive correlation between the alteration of NK cells and disease severity, outcome. This research is a part of the doctoral thesis within IOSUD of G.E.P.UMPST of Târgu Mureș Doctoral School. This research was funded by G.E.P. University of Medicine, Pharmacy, Science, and Technology Targu Mures, Romania, grant number 10126/1/17.12.2020

Keywords: natural killer cells, SARS-CoV-2, comorbidities, outcome, severity

ACUTE INFECTION WITH DENGUE VIRUS - HOW DO WE ACT?

Sanziana Oana Popescu¹, Olivia Burcos¹, Andreea Florentina Stoenescu², Gratiela Tardei³, Corneliu Petru Popescu², Simin-Aysel Florescu²

¹ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases

² Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

³ Department of Microbiology, Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases

Background: The current work presents a case of acute infection with Dengue virus, manifested by persistent hypotension, purpuric exanthema and persistent pancytopenia. **Material and methods:** A 44-year-old patient recently returned from Bali presented in our hospital with fever, headache, myalgias, arthralgias, and fatigue for 3 days without improvement. From the medical history, the patient reported a history of insect bites and failure to undergo appropriate prophylaxis. Upon admission, clinical examination revealed bilateral submandibular lymphadenopathy as the sole pathological finding, stable cardiorespiratory function (BP = 140/80 mmHg); biological investigations revealed leukopenia, moderate anemia, thrombocytopenia (82,000/ μ L), hepatic cytolysis syndrome, electrolyte imbalances, and muscular cytolysis syndrome. On the second day of hospitalization, a maculopapular erythematous eruption emerged on the chest, without a tendency to confluence, and a purpuric

exanthema on the lower limbs. In evolution, the thrombocytopenia worsened with a shift from 82,000 to 61,000, and the patient associated persistent hypotension with values of 106/60 mmHg. Symptomatic antipyretic treatment and infusions for hydroelectrolytic and volemic rebalancing have been instituted since admission. The gradual remission of the exanthema and thrombocytopenia is observed so that after 6 days he is discharged with an improved general condition, purpuric exanthema improving and platelets within normal limits (180,000/microL). The patient underwent a tropical disease panel including Zika, Dengue, and Chikungunya testing, peripheral blood smear, and thick smear examination (negative for parasitic elements), and *S. typhi* stool culture. Positive findings for Dengue IgM (ELISA test) and highly positive NS1 antigen confirmed acute Dengue virus infection. **Results:** Epidemiological history and prompt referral of suspected imported tropical disease cases to specialized clinics are crucial for accurate diagnosis and treatment of these cases **Conclusions:** Epidemiological history and prompt referral of suspected imported tropical disease cases to specialized clinics are crucial for accurate diagnosis and treatment of these cases

Keywords: thrombocytopenia, Dengue fever, hypotension, IgM, purpuric rash

IMPORTED FEBRILE SYNDROME IN A YOUNG, PREVIOUSLY HEALTHY ADULT

Daniel Dragos Budea¹, Andreea Popica¹, Simin-Aysel Florescu², Maria Nica³, Andreea Florentina Stoenescu²

¹ Department of Infectious Diseases, Dr. Victor Babeş Clinical Hospital for Infectious and Tropical Diseases, Bucharest

² Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

³ Department of Microbiology, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: *Salmonella typhi* is a Gram negative bacterium which is responsible for the disease called Typhoid fever. Its endemicity stretches from Africa to S-E Asia, covering the Indian subcontinent too, being accountable for about 9 million cases and 110.000 deaths annually. **Material and methods:** Male, 35 years old, returning from Congo, presents to the hospital with fever, chills and headache that started two weeks prior, also reporting diarrhea for the last two days. Upon admission, the clinical examination reveals altered general condition, a temperature of 38° Celsius, labial herpetic lesions, tenderness in the left hypochondriac, palpable spleen 1 cm below the costal grid and loose stools. Paraclinical investigations show low WBC count, mild anemia, elevated liver enzymes and high inflammation markers. A rapid test for malaria accompanied by malaria blood smear rules out this diagnosis. The patient also undergoes a lumbar puncture which rules out acute meningitis. The blood culture drawn at admission is positive for *Salmonella typhi* thirteen hours after incubation. The stool culture is also positive for *Salmonella typhi*. Antibiotic susceptibility testing reveals resistance to Ciprofloxacin, as well as to TMP-SMX and Ampicillin. Imaging: abdominal echography shows splenomegaly. **Results:** Antibiotic treatment is initiated: Ceftriaxone 2 g/day iv + Azithromycin 500 mg/day po, alongside Mannitol, corticosteroid and symptomatic treatment. The clinical evolution is favorable, there is a significant mitigation of the headache, the febrile episodes stop after two days of antibiotic treatment and the stool is normalized. Regarding blood tests, the inflammation markers values drop within normal limits. **Conclusions:** Typhoid fever represents an important travel related infection. The differential diagnosis of imported febrile syndrome should always include this illness. Over the years, it has been observed a decrease in antibiotic susceptibility regarding *Salmonella typhi*, specifically resistance to fluoroquinolones. Fortunately, there are still treatment alternatives for this disease., but we should not discard the importance of prevention, through to thorough personal hygiene and vaccination.

Keywords: Typhoid fever, Congo, Salmonella, travel

HEPATIC DECOMPENSATION DURING INFECTION WITH INFLUENZA A IN A PATIENT WITH CHILD C ALCOHOLIC CIRRHOSIS AND END STAGE KIDNEY DISEASE

Alina-Cristina Dinca¹, Andreea Florentina Stoenescu², Alexandra Busila³, Simona Tetrarov³, Maria Nica⁴, Corneliu Petru Popescu², Simin-Aysel Florescu²

¹ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital of Infectious and Tropical Diseases, Bucharest

² Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

³ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases

⁴ Department of Microbiology, Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases

Background: The clinical presentation of influenza ranges from mild to severe, depending on the age, comorbidities and vaccination status. Patients with liver cirrhosis are at high risk of a severe course of the infection including secondary infections, development of organ failures and death. **Material and methods:** We report the

case of a 48 years old male patient, known with Child-Pugh C alcoholic liver cirrhosis and end stage kidney disease, who was undergoing hemodialysis via long life catheter placed in the right jugular vein. He presented to our hospital with a severe form of influenza A (positive Influenza Antigen test at home). **Results:** Biologically, the main changes were represented by hepatic cytolysis, important cholestasis syndrome and azotate retention, inflammatory syndrome and elevated procalcitonin levels. The chest X-ray was suggestive for bilateral interstitial pneumonia.

During hospitalization, the patient received antiviral therapy, Osteltamivir (30 mg immediately, then 30mg after every hemodialysis cycle) and broad-spectrum antibiotic, Meropenem (500mg/day iv; dialysis day dose after the session), but he developed acute respiratory insufficiency, requiring non invasive oxygen therapy. He also presented low values of the blood pressure (90/60 mmHg) and an increase in the size of the abdomen due to accumulation of ascitic fluid. Paracentesis was performed and one liter of serocitrine fluid was evacuated and sent to the laboratory for biochemical analysis, cell count and bacterial cultures. At the end of the procedure, 100 mL of human albumin 20% were administered. Despite medical advice, the patient requested to be discharged from the hospital. **Conclusions:** The presented case report certifies the importance of effective prevention with vaccination and early recognition and treatment of influenza in patients diagnosed with chronic hepatic impairment.

Keywords: Influenza A, Child-Pugh C liver cirrhosis, decompensation, hemodialysis

RESPIRATORY SYNCYTIAL VIRUS INFECTION IN ADULTS

Nina-Ioana Bodnar¹, Valentina Negrea¹, Ákos Vince Andrejkovits¹, Erzsébet-Iringó Zaharia-Kezdi¹, Tudor Fleseriu¹, Andrea Incze¹, Cristina Girbovan¹, Lucia Carmen Chiriac¹, Anca-Meda Vasiesiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Respiratory syncytial virus, one of the most common respiratory pathogens in infants and young children, can also produce severe infections among elderly or immunocompromised adults. **Material and methods:** We present a small study including 19 patients diagnosed with respiratory syncytial virus (RSV) infection who required hospitalization in the Clinic of Infectious Diseases I, department of the County Clinical Hospital Mures, between January 2023 - April 2024. **Results:** The mean age was 67 years, with a median of 74. Apart from age, the most significant risk factors included chronic respiratory and cardio-vascular diseases - 11 (57.89%) cases each. Malignancy was noted in 4 (21.05%) subjects and diabetes mellitus in 5 (26.31%). Fifteen (78.94%) patients had acute respiratory failure, requiring oxygen therapy or even respiratory support. Bacterial superinfection was reported in 16 (84.21%) cases, while exacerbation of chronic comorbidities - respiratory and cardio-vascular diseases - was noted in 10 (52.63%) and respectively 4 (21.05%) patients. The duration of hospitalization ranged between 4 and 23 days, with an average of 9 days. Treatment consisted of antibiotics (84.21% cases), corticosteroids and oxygen therapy (78.94% cases), as well as symptomatic and supportive measures. **Conclusions:** Respiratory syncytial virus may cause a severe form of infection in adults, especially among elderly or immunocompromised persons. Raising awareness regarding this pathogen among the risk groups, as well as prophylactic measures, including vaccination of the elderly, are important in order to reduce the impact of this infection.

Keywords: respiratory syncytial virus, respiratory failure, severe infection

RELAPSE OF PLASMODIUM VIVAX IN A PAKISTANI MALE PATIENT

Maria-Luiza Teodorescu¹, Andreea Popica¹, Simona Tetrarov¹, Andreea Toderan¹, Andreea Florentina Stoenescu², Corneliu Petru Popescu², Simin-Aysel Florescu²

¹ Department of Infectious Diseases, Dr. Victor Babes Clinical Hospital for Infectious and Tropical Diseases

² Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: Malaria is a protozoan disease transmitted by the bite of infected Anopheles mosquitoes. It's the most important parasitic diseases in humans raising many challenges specially since physicians in our country do not frequently encounter patients with malaria thus making the management of this condition somewhat complicated. Relapsing is a phenomenon seen in *P.vivax* and *P.ovale* infections otherwise known as mild to moderate forms of malaria. **Material and methods:** We report the case of a 21 years old pakistani male patient with no underlying health conditions, admitted in our clinic in September 2023 for fever, abdominal pain and nausea. The patient returned from Pakistan 14 days before the onset of the symptoms. Blood test revealed an important inflammatory syndrome, mild leucopenia, hyperbilirubinemia and moderate thrombocytopenia. The thick blood film showed the presence of mature *P.vivax* trophozoites and gametocytes. The patient received oral anti

parasitic treatment with Atovaquone / Proguanil for 3 days. At the moment of discharge there were no parasitic elements on the thick blood film, also, the blood works showed normal liver function and a normal blood cell count. We recommended Primaquine 30 mg/day for 14 days or Plaquenil 800 mg (first dose) followed by 400mg at 6,24 and 48 hours as prophylactic treatment for a relapse. In December 2023 the patient is admitted again for a similar clinical picture as the first time. Blood smear microscopy confirmed the presence of young and mature *Plasmodium vivax* trophozoites and gametocytes confirming the relapse after three months since the primary malaria infection. **Results:** The patient received another round of oral anti parasitic treatment with Atovaquone / Proguanil for 3 days and antibiotic treatment with doxycycline 100mg bid of for 7 days with favorable outcome. He was discharged with the same prophylactic treatment advice as the first time. **Conclusions:** The report underlines that relapses should be considered in febrile patients who have a history of malaria with *Plasmodium vivax*. It also highlights the importance of the proper management which includes not only the curative anti parasitic treatment but also the adequate prophylaxis for the possible relapse episodes.

Keywords: malaria, plasmodium vivax, atovaquone/proguanil, relapse, primaquine

COMPARATIVE EPIDEMIOLOGY AND CLINICAL ANALYSIS OF INFECTIONS WITH INFLUENZA TYPE A AND B IN THE PEDIATRIC POPULATION

Cristina Chiurtu¹, Claudia Simona Cambrea²

¹ Department of Infectious Diseases, Constanta Infectious Diseases Hospital

² Department of Infectious Diseases, Ovidius University of Constanța

Background: Viral respiratory infections, such as influenza type A and type B, have a significant impact on the population and the health system. In the context of a global pandemic, such as the one of COVID-19, understanding the epidemiology, clinical characteristics and ways of managing these respiratory infections becomes essential to ensure effective and appropriate responses. **Material and methods:** Retrospective study carried out through a comparative analysis of flu cases in the first 3 months of 2023 and 2024, in patients aged between 1-18 years who required hospitalization in the Constanta Clinical Hospital for Infectious Diseases, the analyzed group being 371 patients in total. We aim to highlight the differences between the two years in terms of age, sex, associated complications, biohumoral balance, disease evolution and treatment **Results:** Of the total number of hospitalized patients, 163 were registered in 2023 and 208 in 2024. Most of the cases came from urban areas, 61% of cases in 2023 and 52% of cases in 2024, the most affected age group being 1 -3 years, predominantly male. The predominant type of influenza was type A (100 cases in 2023 and 145 in 2024), followed by type B influenza (19 cases in 2023 and 23 cases in 2024), the rest of the patients were clinically diagnosed. According to the processed data, we found that fever was the most frequent symptom, followed by cough, vomiting and loss of appetite. The significant paraclinical changes were leukopenia (70% in 2023 and 57% in 2024), leukocytosis (6% in 2023 and 2% in 2024) and biological inflammatory syndrome (41% in 2023 and 31% in 2024). The most frequent complication in patients was respiratory (10 cases in 2023 and 6 in 2023) and digestive (10 cases in 2023 and 8 in 2024). In terms of treatment, most patients received Oseltamivir (88% in 2023 and 62% in 2024). **Conclusions:** Through this study we wanted to highlight the key characteristics of flu cases hospitalized in our hospital. Our findings emphasize the need to continue efforts to promote influenza vaccination and preventive measures, in order to reduce the incidence and severity of influenza infections.

Keywords: influenza type A, Oseltamivir, influenza type B, complications

THE 2023-2024 MEASLES OUTBREAK IN MURES COUNTY - EPIDEMIOLOGICAL AND CLINICAL ASPECTS

Cristina Manasturean¹, Daniel Halatiu¹, Anca-Meda Vasiesiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: According to the World Health Organization, measles vaccination has saved nearly 94 million lives in the past 50 years. In Romania, the vaccine against measles is mandatory and available for free. However, our country is facing another measles outbreak, with almost 14.000 confirmed cases and 15 deaths, in the past year. **Material and methods:** We conducted a retrospective study, including all the patients confirmed with measles admitted in the Infectious Diseases 1 Clinic in Targu-Mures since April 2023. We observed epidemiological aspects, but our main focus was pointing out the incidence of complicated cases, requiring hospitalisation and treatment. **Results:** Out of the total number of 265 patients, only 32 were presumably vaccinated against

measles. As for the age distribution, most of the patients were children, 80 of them below the age of one, at the same time some of the patients were adults, 2 of them being over 40 years old. The mean number of admission days was 4, depending on the form of the disease, with more than half of the patients requiring antibiotic treatment. The most common complications were respiratory, followed by digestive and neurological. **Conclusions:** Considering the fact that the measles vaccine has proved his efficacy and there are no documented severe side effects, the vaccination rate in Romania has dropped significantly, thus we are faced with another epidemic causing illness in young children, many of them not eligible for vaccination. In addition, the financial burden created for the healthcare system is substantial, considering the costs of diagnosing, hospitalising and treating a patient, versus the price of two doses of vaccine. Furthermore, the declining vaccination rates are a concerning sign, measles being only one of the preventable infections that could cause serious morbidity.

Keywords: measles, outbreak, vaccination

PREDICTIVE BIOMARKERS FOR ASSESSING MORTALITY RISK IN SEVERE INFLUENZA INFECTIONS

Tudor Fleseriu¹, Alexandra Resmerita¹, Anca-Meda Vasiesiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureş

Background: Severe influenza infections are a significant concern due to their potential impact on public health. Understanding the pathogenesis of severe flu is crucial for the early detection of high risk patients and to develop effective therapeutic strategies. **Material and methods:** 74 patients with severe influenza infections were admitted to Infectious Diseases Clinic I during the last two cold seasons (September 2022-April 2024). Inclusion criteria included the need for oxygen therapy and oxygen saturations below 90% during the hospital stay. Following a descriptive characterization of the study population, our aim was to identify mortality-predicting factors within laboratory samples. We assessed the predictive value of C-reactive protein (CRP), fibrinogen, erythrocyte sedimentation rate (ESR), and neutrophil-lymphocyte ratio (NLR) at admission (T1), within the first week (T2), and after the seventh day (T3) using ROC analysis. **Results:** Six patients were excluded from the study due to extraterritorial transfer, on-demand discharge, or SARS-CoV-2 coinfection. Among the remaining 68 patients, 55 (80.8%) had concurrent bacterial suprainfection, and 10 (14.7%) succumbed to complications. The ROC analysis revealed a very strong predictive value for CRP at all three time points (T1 AUC: 0.778, $p=0.009$; T2 AUC: 0.953, $p<0.001$; T3 AUC: 0.944, $p<0.001$). NLR showed a time-dependent strong predictive value (T1: no prediction, $p=0.2$; T2 AUC: 0.885, $p<0.001$; T3 AUC: 0.969, $p<0.001$), while fibrinogen exhibited milder prediction (T1: no prediction, $p=0.9$; T2 AUC: 0.739, $p=0.3$; T3 AUC: 0.780, $p=0.4$). ESR did not show any predictive value. **Conclusions:** CRP and fibrinogen levels, along with NLR, can serve as valuable tools in evaluating infection severity and mortality risks in severe influenza cases.

Keywords: Influenza, Severe, Mortality, Prediction, CRP

ACUTE ENTEROCOLITIS WITH CLOSTRIDIUM DIFFICILE IN CHILDREN: CLINICAL-EPIDEMIOLOGICAL AND EVOLUTIVE ASPECTS

Claudia Simona Cambrea¹, Raluca Mihai¹, Andreea-Elena Topa¹, Ana Maria Iancu¹, Mihaela-Mariana Mavrodin¹, Melihan Curtazar¹, Bogdan Nitu¹

¹ Department of Infectious Diseases, Ovidius University of Constanța

Background: *Clostridium difficile* is an important nosocomial pathogen in adults. Its importance in children is less well known, but cases of infection seem to be increasingly common in this age group. In children, there is a tendency for the carriage rate to decrease with increasing age. **Material and methods:** We conducted a retrospective analysis in the period 2018-2024 of *Clostridium difficile* Infection cases diagnosed in pediatric patients at SCBI Constanta. The objective of the study was to highlight the frequency and severity of cases in children. Parameters such as age, sex, history of antibiotic consumption and hospitalizations, evolution under treatment, presence of relapses and complications were analyzed. **Results:** Twenty-eight cases of acute *Clostridium difficile* enterocolitis were diagnosed in children aged 1-14 years, with males predominating. The PCR diagnostic method was used in 11 cases and the immunochromatography-based method was used in 17 cases. Recent history of antibiotics was confirmed in 14 cases, predominantly using cephalosporins. The clinical picture was dominated by the presence of characteristic diarrheal stools. The etiological treatment was predominantly oral Vancomycin monotherapy in 19 cases. The duration of hospitalization was between 5-14 days and relapses were

found in 3 cases. **Conclusions:** *C. difficile* has traditionally been considered non-pathogenic in young infants, as they can carry both toxigenic and non-toxigenic strains without obvious clinical symptoms, even so the use of antibiotics in children should only be indicated in documented situations, as septic complications and relapses are possible.

Keywords: clostridium difficile, children, cases, evolution, treatment

THE PREVALENCE OF THROMBEMBOLIC COMPLICATIONS IN PATIENTS WITH SEVERE SARS-COV-2 INFECTION ADMITTED TO 1ST INFECTIOUS DISEASES CLINIC

Valentina Negrea¹, Ákos Vince Andrejkovits¹, Anca-Meda Vasiesiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: The pro-inflammatory and procoagulant status in patients with SARS-CoV-2 infection increases the risk of thrombembolic complications. **Aim of the study:** Evaluation of the incidence and characteristics of thrombembolic complications in patients with severe and critical forms of COVID-19. **Material and methods:** Retrospective cohort study, who were admitted to the 1st Infectious Diseases Clinic Targu Mures between January 2021 and December 2023. **Results:** 229 patients presented the severe or critical form of COVID-19, of which 25 patients (10,91%) presented thrombembolic complications, constituting the study group, in which male patients predominated (68%), without significant differences of the lot without complications. 21 patients (84 %) developed pulmonary vein thrombosis, 2 (8 %) had lower limb deep vein thrombosis, one patient developed acute coronary syndrome and one patient developed stroke. The diagnosis confirmed by computer tomography angiography. 14 patients (56 %) required transfer to intensive care unit. 16 patients had positive D-dimers at baseline, above 5 µg/mL. 20 patients received anticoagulation in prophylactic doses of enoxaparin since admission, 4 received therapeutic doses, and one patient did not receive thromboprophylaxis. On average the thrombembolic complications appeared 7,16 days after hospitalization. The mortality rate in the study group was 36 % (9 patients). There were no significant differences in terms of age, gender and comorbidities in the study group compared to those without TE complications ($p > 0,05$). **Conclusions:** Thrombotic complications in COVID-19 include a wide spectrum of both arterial and venous thrombosis and are predilected in the pulmonary vasculature. In the studied group, segmental and subsegmental pulmonary artery thrombosis outnumbered other thrombotic complications, including pulmonary embolism.

Keywords: COVID-19, D-dimer, thromboembolic events, thromboprophylaxis

PROGNOSTIC MARKERS IN COVID-19 PATIENTS WITH ONCOLOGICAL PATHOLOGY ASSOCIATED

Cristina Girbovan¹, Anca-Meda Vasiesiu¹, Ákos Vince Andrejkovits¹, Mircea Girbovan², Nina-Ioana Bodnar¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

² Department of Urology, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Patients diagnosed with cancer represent a particular category that faces heightened vulnerability to contracting SARS-CoV-2 infection. Their compromised immune systems, along with various other factors, pose significant challenges for medical professionals managing their care. In our study, we aimed to highlight the effects of COVID-19 on patients with oncological pathology associated, utilising commonly used indices, to show their utility as prognostic indicators. **Material and methods:** This is a retrospective observational study conducted on 64 adult patients suffering from different types of cancer which were tested positive to SARS-CoV-2 infection. All patients included were admitted to the Infectious Diseases Clinic 1 in Târgu Mureș during 2021 and 2022. We conducted blood tests within the initial 24 hours of hospital admission and calculated the systemic inflammatory biomarkers. **Results:** We evaluated 51 eligible patients, of which 35 were men (54.68%) with an average age of 70.31 (range 42-91). Regarding the mortality rate, dNLR ($p < 0.001$), NLR ($p < 0.001$) and SIRI ($p=0.006$) represented independent factors for a negative outcome for these patients. The same biomarkers proved to be statistically significant as independent factors regarding ICU admission (dNLR $p < 0.001$, NLR $p < 0.001$ and SIRI $p=0.006$). In terms of severity of the disease we registered dNLR and NLR as statistically significant biomarkers (dNLR $p=0.016$ and NLR $p=0.018$). Moreover, the ROC analysis showed an area under the curve (AUC) of 0.875 and a $p < 0.0001$ for dNLR, 0.884 and $p < 0.0001$ for NLR and 0.773 with a p value=0.002 for SIRI, all markers compared to transfers in ICU. Regarding the mortality the results registered were AUC 0.849, $p < 0.0001$ for dNLR, AUC 0.861, $p < 0.0001$ for NLR and AUC 0.783, $p=0.003$ for SIRI. **Conclusions:** Elevated levels of dNLR, NLR

and SIRS are directly associated with clinical severity, mortality and the need for transfer in ICU in patients with COVID-19 and oncological pathology associated.

Keywords: Cancer, SARS-CoV-2 infection, Systemic inflammatory biomarkers

MULTIDISCIPLINARY MANAGEMENT OF SUSPECTED LYME BORRELIOSIS

Violeta Briciu¹

¹ Department of Infectious Diseases, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca

Background: Lyme disease or Lyme Borreliosis (LB), is a multisystemic disease, the most common disease transmitted by ticks in Europe and North America. The success of diagnosis depends on the knowledge of epidemiological, clinical and laboratory aspects. The evaluation, treatment and follow-up of patients that present with the suspicion of LB represent a challenge for the infectious disease specialists. **Material and methods:** The "Lyme Disease Center" was founded in 2010 in the Clinical Hospital for Infectious Diseases Cluj-Napoca, with a multidisciplinary team (infectious disease specialist, microbiologist, neurologist, rheumatologist, ophthalmologist, psychiatrist, cardiologist). Underdiagnosis and overdiagnosis of LB represent the two medical errors faced by the clinicians. Patients investigated for suspected LB present various clinical manifestations and comorbidities that complicate the differential diagnosis. **Results:** In the presentation we will discuss: (a) the clinical picture of LB; (b) laboratory diagnosis; (c) limitations of serological tests and false positive results; (d) laboratory tests not recommended to be used for diagnostic purposes; (e) increased seroprevalence among the healthy population; (f) results of local published studies that confirm the wide range of differential diagnoses (neurological, rheumatological, other infectious diseases, psychiatric diseases or systemic/autoimmune diseases). We try to answer to the question "What should be done in case of persistent symptoms after adequate antibiotic treatment for LB?" Assessment of response to treatment is difficult in the absence of paraclinical tests as marker of healing. The persistence of symptoms after antibiotic therapy is a much disputed and studied phenomenon. The most common cause of treatment failure is incorrect diagnosis, which requires clinical re-evaluation and not a new course of antibiotics. **Conclusions:** Considering the variety of differential diagnoses, a multidisciplinary management of LB suspected patients should be addressed in all reference centers in order to achieve a more precise diagnosis and better patient-centered medical support.

Keywords: lyme borreliosis, differential diagnosis, multidisciplinary team

CLINICAL AND IMAGING CHARACTERISTICS IN PATIENTS WITH PULMONARY THROMBOSIS ASSOCIATED WITH COVID-19

Cristian-Mihail Niculae¹, Raluca-Mihaela Matoru¹, Laura-Georgiana Tirlescu¹, Maria-Evelina Gorea¹, Rares-Alexandru Constantin¹, Mihai Lazar², Adriana Hristea¹

¹ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

² Department of Pathophysiology, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: Severe COVID-19 is associated with a high prevalence of thrombotic events, even in anticoagulated patients. The clinical presentation is challenging and imaging CT data can show valuable information regarding the COVID-19 associated pulmonary thrombosis (PT). The objective of our study was to describe the clinical and lung CT characteristics of patients with the diagnosis of PT developed with and without anticoagulation. **Material and methods:** We analysed a mixed, retrospective, and prospective cohort of 103 adult patients hospitalised from March 2020 to June 2022. For the diagnosis of PT, a CT pulmonary angiography (CTPA) was performed at the indication of attending physician. **Results:** We included 36 patients with a CTPA-confirmed diagnosis of PT. All patients had PT in the segmental branches, 35% of patients in the lobar arteries and 5.5% of them in the left/right pulmonary artery (PA). No cases of PT in the main PA were recorded. Most patients (64%) presented with PT in the right inferior lobe, 58% with involvement of the left inferior pulmonary lobe and 11% of patients had PT in the left superior lobe. PT was also found in the right middle lobe (14%) and in the right superior lobe (28%). In the majority of cases (30.5%), PT was described in two pulmonary lobes. A positive CTPA imaging for diffuse PT, in all five pulmonary lobes, was also recorded in one case. The in-hospital all-cause mortality was 22.2%. We also analyzed 30 COVID-19 patients who developed PT while on various doses of anticoagulation. All patients had severe COVID-19, with acute hypoxemia. PT was diagnosed despite prophylactic, intermediate, and therapeutic doses of low-molecular-weight heparins (LMWHs) in 23.3, 46.6 and 30% patients, respectively, for 8 (4.7-12) days. PT was found in the lower lobes in 76.6% of cases and 33.3% of patients had bilateral PT. Distal, peripheral

pulmonary arteries were the most involved. The in-hospital all-cause mortality was 22.2%. **Conclusions:** Distal, peripheral arteries were the most affected lung vessels, regardless of anticoagulation. Diffuse, small pulmonary thrombosis can occur frequently despite standard or high doses of LMWHs, especially in patients with severe SARS-CoV-2 infections.

Keywords: pulmonary thrombosis, COVID-19, anticoagulation

SEVERE LOCALIZED Q FEVER, A RURAL DISEASE? REPORT OF TWO CASES AND DISCUSSION OF THE LITERATURE

Amanda Radulescu¹, Monica Muntean¹, Mihaela Lupse¹, Bogdan Caloian², Ioana Hiriscu³, Violeta Briciu¹

¹ Department of Infectious Diseases, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca

² Department of Internal Medicine I, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca

³ Department of Radiology, Clinical Hospital for Infectious Diseases, Cluj Napoca

Background: *C. burnetii* can cause asymptomatic infections and acute or chronic/persistent manifestations affecting various organs. Doxycycline is the most effective treatment for Q fever. We report two cases of *C. burnetii* infections with no evident epidemiological link. **Material and methods:** A 51-year-old male patient was admitted in our hospital for low fever, dry cough, and malaise. The physical examination was unremarkable except for painful hepatomegaly. He was diagnosed with liver abscess based on inflammatory markers, positive serology for *C. burnetii*, and abdominal computed tomography (CT) showing a large multilocular lesion (112/86/93 mm) within the right liver lobe. Blood cultures and fluid obtained by percutaneous catheter drainage were negative. After 28 days of treatment with doxycycline he was discharged well. At the three months reevaluation, blood tests were normal and CT scan showed a minimal residual lesion. **Results:** The second case was an 81-year-old female with many comorbidities and double aortic biological prosthesis and mitral valve infective endocarditis (IE) based on echocardiography findings. *C. burnetii* infection was confirmed by the high titers of antibodies (phase I and II IgG). She was scheduled for 18 months of treatment with doxycycline and hydroxychloroquine with a good outcome demonstrated by stable status, and no vegetations at more than three months of follow-up. **Conclusions:** Even in the absence of epidemiological clues, in patients with localized infections, the *C. burnetii* etiology should be considered.

Keywords: Q fever, liver abscess, *Coxiella burnetii*, infective endocarditis

VARIA

HIV-HBV CO-INFECTED LATE PRESENTER

Zsuzsanna Nagy¹, Erzsébet-Iringó Zaharia-Kézdí²

¹ Department of Infectious Diseases, County Clinical Hospital Mureș, Clinic of Infectious Diseases I

² Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Despite the wide access to HIV infection detecting methods and antiretroviral therapy (CART) the number of late presenters still increases worldwide and continues to cause difficulties in the management and treatment of such patients. Initiating treatment in advanced stages of the disease gives hope to stop viral replication and strengthen the immune system. The aim of our study is to present the case of a late presenter patient with HBV coinfection and to raise awareness in early testing of patients with any sign or risk factors of immunosuppression. **Material and methods:** We present the case of a 35-year-old female with a history of chronic viral hepatitis with B virus from the year 2016, non-responsive to Interferon treatment, at the moment under oral treatment with Entecavir associated with Tenofovir, admitted to our hospital with prolonged diarrhoea, asthenia, weight loss. Before admission the patient went through several investigations, esophageal candidiasis was detected by gastroscopy, subsequently underwent antifungal treatment. During the last hospitalization at the gastroenterology department the patient tested positive for HIV infection. Further tests were made to confirm the disease. **Results:** The general blood test didn't show any significant changes, hepatitis B viral load was undetectable, however HIV viral load was increased (145.000/ml), CD4+ cell count shown 4 cells/ μ l. After a rigorous interrogation we failed to discover the route of transmission. Given the patient received dual therapy for hepatitis B infection (Entecavir and Tenofovir) and monotherapy for HIV infection (Tenofovir), it is indispensable to take into consideration the possible resistance mutations, in order to select the adequate therapy for both infections. In our case the first choice was Bictegravir/Emtricitabine/Tenofovir with Entecavir. In the future we need to reconsider the therapeutic scheme depending on the resistance profile. **Conclusions:** As a conclusion, the early screening of possible HIV-infected patients is of great importance, in order to be able to start treatment as early as possible, and last but not least, to reduce the number of late presenters in advanced stages of the disease.

Keywords: late presenter, HIV, hepatitis B, early screening

POST-ACUTE INFECTION SYNDROME

Dumitru Carstina¹

¹ Department of Infectious Diseases, Cluj-Napoca Clinical Hospital for Infectious Diseases

Background: The evolutionary ways of an infectious disease are multiple, dictated by the potency of two factors: the pathogen and host's immune response. To these is added the complex therapy, which acts concomitantly on the two factors, decisively influencing the evolution of the disease. During an infectious disease, homeostasis is altered and its restoration requires a lot of time: months or years). The infectious disease does not end with the elimination of the pathogen. The destructive immuno-pathological and physio-pathological processes, which are the foundation of the infectious disease continues at the level of some tissues and organs, generating a clinically diverse, long-term symptomatology called post-acute infection syndrome. It was reported after infections such as: influenza A, hepatitis B, C, infections with Epstein-barr virus, Sars-Cov 1 etc. The avalanche of Covid 19 cases and its evolution methods brought this syndrome back into discussion, under various names: post-Covid 19, Long Covid 19 (which is not fundamentally new). **Material and methods:** The purpose of this work is an attempt to analyze and assemble the research results of recent years regarding this syndrome, collected from the specialized literature (cited in the bibliography). **Results:** The hypotheses, supported by the evidence, to explain this syndrome (including Long Covid) are multiple and refer to: the persistence of the pathogen or its components, which incited the immune system and the persistence of inflammation (auto-immunity); persistence of endothelial dysfunction and coagulation disorders; mitochondrial dysfunction (mitochondria are cellular energy generators); complex endocrine disorders; reactivation of persistent viral infections (EBV, cytomegalovirus V); affecting of the microbiota. **Conclusions:** The results document the multitude of changes in the parameters, which can explain the complex symptomatology of this syndrome, as well as possible therapeutic interventions. In formulating the diagnosis of this syndrome and the treatment, it is necessary to work in a complex team (ID doctor, neurologist, endocrinologist, nutritionist etc.)

Keywords: viral persistence, Long Covid, mitochondrial dysfunction, endocrine dysfunction, microbiota dysfunction

THE CHALLENGES OF PROLONGED FEBRILE SYNDROME

Maria Gabriela Grigoriu¹, Oana Lidia Stămăteanu¹, Larisa Miftode¹, Antoanela Maria Pasăre¹, Cristian Sorin Prepeliuc¹, Andreea Mihai¹, Cristina Rotaru¹, Egidia Miftode¹

¹ Department of Infectious Diseases, Grigore T. Popa University of Medicine and Pharmacy, Iasi

Background: Prolonged febrile syndrome can be caused by multiple conditions: infection, inflammatory disorders, malignancies and miscellaneous. A noteworthy cause is infective endocarditis which continues to be a great challenge for clinicians. **Material and methods:** We report the case of a 49-year-old male who presented with symptoms that started approximately three months prior, including fever, chills, myalgia, arthralgia and arthritis affecting the metatarsophalangeal joint of the left first finger. Upon the recommendation of the rheumatologist, he underwent treatment with NSAIDs, followed by a course of methylprednisolone, resulting in only mild improvement of fever and arthritis symptoms. After three days, the fever reappeared, prompting referral to the Infectious Disease Hospital on February 5th. Upon general clinical examination, the patient was conscious and hemodynamically stable, characterized by regular heart sounds without murmurs. Laboratory tests revealed leucocytosis with neutrophilia and significant inflammatory syndrome. On the sixth day of hospitalization, blood cultures results indicated the presence of *Streptococcus mitis* and *Streptococcus oralis*, prompting further investigation. A transthoracic echocardiography was performed, revealing a mobile hyperechogenic mass consistent with a vegetation on the aortic valve, accompanied by severe aortic regurgitation. Transesophageal echocardiography was conducted to confirm the diagnosis. Intravenous treatment was initiated with Ampicillin and Gentamicin for 14 days, followed by monotherapy with Ampicillin. The decision to delay surgery was made by the cardiothoracic surgeon, taking into account the patient's stable condition. On the 26th day of hospitalization, the patient showed worsening of general condition, characterized by central facial paresis, urinary incontinence, and temporo-spatial disorientation. Cranio-cerebral MRI indicated an acute ischemic stroke affecting the MCA territory. **Results:** Following the fever recurrence, the detection of a systolic murmur at the aortic valve, and the stroke episode, echocardiography was conducted. It revealed a perforated abscess at the aortic valve and severe regurgitation, prompting the decision for Aortic Valve Replacement post-resolution of the infectious process. Consequently, surgical intervention was postponed while antibiotic therapy continued, leading to the remission of the febrile syndrome and favourable clinical progression. **Conclusions:** In conclusion, endocarditis is a pathology that must be addressed by a multidisciplinary team, as it can present heterogeneously both at onset and during the course of its complications.

Keywords: endocarditis, fever, stroke, Aortic Valve Replacement

EPSTEIN-BARR VIRUS INDUCED ACUTE HEPATITIS IN A 7 YEARS OLD GIRL: A CHALLENGING DIAGNOSIS

Cristina-Ana-Maria Nitu¹, Maria Oana Sasaran¹, Oana Marginean¹

¹ Department of Pediatrics I, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Mononucleosis is an infectious disease caused by the human herpesvirus 4, also known as Epstein-Barr Virus (EBV). This benign lymphoproliferative pathology is commonly found within the pediatric population from the developing countries, and is mostly asymptomatic. Although an atypical form of presentation, hepatitis can be part of the clinical picture of mononucleosis in children. **Material and methods:** We present the case of a 7-year-old girl admitted to our Pediatric Department, presenting the following symptoms: abdominal pain and constipation. From the personal pathological history we found out that she was redirected for a pediatric gastroenterology consult after being evaluated in the Infectious Diseases Department for hepatic cytolysis syndrome, highlighted through important elevation of the liver enzymes (ALT: 531 U/L and AST: 413 U/L). Hepatitis A, B, C were excluded, as well as EBV infection, as IgM and IgG antibodies directed against the viral capsid were assessed and were negative. **Results:** At the current admission to our department, laboratory data revealed decrease in liver enzyme values (ALT: 118 U/L and AST: 76,8 U/L). An infectious cause of the hepatic cytolysis syndrome was once again searched for. An Epstein-Barr virus antibody test revealed a positive value of the antiEBV IgM.. The abdominal ultrasound revealed normal ranges of the liver's dimension and normal aspect of the spleen, with abdominal flatulence and fecalomas. Considering the clinical and biological findings associated with the medical history of the patient, it was established the diagnose of hepatitis in the context of mononucleosis. Symptomatic and supportive treatment was initiated with a close follow up. **Conclusions:** In light of all these, it is important to

consider a meticulous approach of the pediatric patient with hepatitis in order to find a correct diagnose and to differentiate it from other possible causes. EBV can lead to viral hepatitis in children, with different degrees of hepatocellular liver disease. The particularity of our case is represented by a hepatitis caused by the infection with EBV virus, in which the diagnosis was challenging, as the antibody titers were within normal ranges initially, and an increase in IgM antibodies, suggestive of the diagnosis was seen shortly afterwards.

Keywords: Pediatric mononucleosis, Epstein-Barr Virus, Hepatitis

URINARY TRACT INFECTIONS: ETIOLOGY AND ANTIBIOTIC RESISTANCE PROFILES AMONG THE PATIENTS WITH HISTORY OF UROLOGIC INTERVENTIONS

Madalina Constantin¹, Tudor Fleseriu¹, Anca-Meda Vasiesiu¹

¹ Department of Infectious Diseases, George Emil Palade University of Medicine, Pharmacy, Science and Technology, Târgu Mureș

Background: Urinary tract infections (UTIs) are still a common subject in the Infectious Diseases departments, especially among the patients that went through urological interventions because of the involvement of hospital acquired pathogens. Identifying the main pathogens and adding their sensibilities and resistance to the local statistics can lead to a better and faster diagnosis and treatment of future cases. **Material and methods:** We performed a retrospective study with 43 patients admitted to the Infectious Diseases Clinic I of the Clinical Hospital in Targu Mures between 2022 and May of 2024. These patients were admitted with a positive urocultures/hemocultures for urinary tract infections and have a history of urological interventions. The main objective of this study is to identify common etiologic agents and their antibiotic resistance profiles in patients with urinary tract infections and previous urologic surgery. **Results:** Between the years 2022-2024, 307 patients with UTIs were admitted in the Infectious Diseases Clinic I, 43 of which had a history of urological interventions. The mean age of the patients was 68 (32–95) years, 76,74% (33) of which were male and 23,25% (10) were female. Out of the 43 patients with urinary tract infections and previous urologic interventions: 15 had a permanent urethrovessical catheter, 9 had prostate interventions, 8 operated tumors, 8 stents and 3 had nephrostomes/cystostomes. The average hospitalization stay was 12,2 days. The most frequently isolated organisms were *Pseudomonas aeruginosa* found in 17 (39,53%) patients, followed by *Enterococcus* spp. in 11 (25,58%), *Klebsiella pneumoniae* in 11 (25,58%) and *Escherichia coli* in 7 (16,27%). The highest antibiotic resistance was found against Ciprofloxacin (84,61%). The resistance against Cefepime was 76,66%, against Trimetoprim-Sulfametoxazole was 75% and against Ceftazidime was 73,33%, while the highest antibiotic sensitivity was observed to Colistin (86%, evaluated at 35% of cases) and Amikacin (69%, evaluated at 76% of cases). 34,88% of the patients had complications during the hospital stay, out of which 60% were sepsis and 40% acute renal failure. **Conclusions:** *Pseudomonas aeruginosa* was the predominant uropathogen causing urinary tract infections among the patients with urological interventions history. The highest antibiotic sensitivity was found to Colistin and Amikacin, while 76% showed resistance to Ciprofloxacin.

Keywords: Urinary tract infections, Urological interventions, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, Ciprofloxacin

A CASE OF INFECTIVE ENDOCARDITIS IN A PATIENT WITH DEMENTIA AND DIABETES

Andreea Florentina Stoenescu¹, Simona Tetrado¹, Corneliu Petru Popescu², Simin-Aysel Florescu¹

¹ Department of Infectious Diseases, Carol Davila University of Medicine and Pharmacy, Bucharest

² Virology, Carol Davila University of Medicine and Pharmacy, Bucharest

Background: *Streptococcus gallolyticus*, formerly known as *Streptococcus bovis*, is a pathogenic microorganism, being known as the etiological agent of infective endocarditis, most commonly located in the left heart. **Material and methods:** A 78-year-old patient, chronic drinker, known with dementia and therapeutically neglected diabetes, is admitted to our clinic for fever, chills and temporal-spatial disorientation, which started 10 days before and progressively worsened. At admission, the patient was in a mediocre general condition, dyspneic, but time-spatial oriented. Biologically, inflammatory syndrome, hyperglycemia, dyselectrolytemia were detected, and *Streptococcus gallolyticus* was present in 3 blood cultures collected at admission. The patient performs a cardiological consultation and a cardiac ecography which reveals a 10 mm vegetation at the level of the posterior mitral valve. From the 3rd day of hospitalization, the patient becomes hardly responsive to verbal stimuli, responsive to painful stimuli. During the hospitalisation, he performs brain CT which does not detect changes in the acute phase. **Results:** Antimicrobial therapy was initiated according to the antibiogram with Ceftriaxone, i.v., systemic

corticosteroid therapy, psychiatric and symptomatic medication. Taking into account the positivity of the urine culture with *Candida parapsilosis*, antifungal treatment with Fluconazole was administered. Under treatment, during the cardiological re-examination on the 27th day of hospitalization, a perivalvular abscess was detected, at the level of the mitral valve. Throughout the hospitalization, the patient deteriorated neurologically, and on the 40th day of hospitalization, he developed multiple organ failure (renal, respiratory, hepatic) and required transfer to the Intensive Care Unit. The evolution of the patient was unfavourable. **Conclusions:** Infective endocarditis still represents a pathology that associates high rates of mortality and morbidity, both through its complications, but also through the delay in diagnosis.

Keywords: endocarditis, *Streptococcus gallolyticus*, bloodstream infection

ANTIBIOTIC RESISTANCE IN CRISIS SITUATIONS

Irina Magdalena Dumitru¹

¹ Department of Infectious Diseases, Ovidius University of Constanța

Background: Wars create ideal conditions for the emergence and spread of multidrug-resistant (MDR) germs. In conflict zones, healthcare infrastructure is often destroyed or severely affected, reducing access to adequate medical care and facilitating the propagation of infections. The deterioration of sanitary conditions and limited access to clean water also contribute to the spread of pathogens. Injured military personnel and civilians affected by conflicts are frequently exposed to nosocomial infections in field hospitals, where the excessive and uncontrolled use of antibiotics favors the development of antimicrobial resistance. The lack of essential medicines and adequate medical equipment exacerbates this problem. Massive population displacements due to conflicts increase contact between individuals, accelerating the transmission of MDR germs. The return of military personnel to their home countries can introduce new resistant strains into civilian populations, further complicating infection control. Additionally, the disruption of medication supply chains and public health programs makes it difficult to effectively monitor and manage infection outbreaks. Thus, in war situations, the risk of emergence and spread of MDR germs is significantly increased, requiring coordinated interventions to minimize the impact on public health. **Material and methods:** - **Results:** - **Conclusions:** -

Keywords: armed conflicts, MDR germs, antibiotic resistance

INTEGRATED PLAN TO REDUCE THE RISK OF HAIS IN MEDICAL UNITS

Andreea Capilna¹

¹ Department of Occupational Medicine, Transylvania University of Braşov

Background: General data: Healthcare-associated infections represent one of the main causes of morbidity and mortality worldwide, being considered as a silent pandemic. **Material and methods:** The exact and correct scope is still unknown, considering that the current available data represent the tip of the iceberg. As a result, the current methods of their prevention and control represent a cornerstone of the activity in any healthcare facility, of any type. Corroboration of the principles of hand hygiene with adequate and correctly applied hospital hygiene, the rules of good medical practice and high impact interventions, audit and feedback, patient screening and the correct management of cases at risk, antibiotic therapy and appropriate antibiotic prophylaxis are the links of a circle- extremely important for the protection of patients, but also for the medical personnel. The exact and correct scope is still unknown, considering that the current available data represent the tip of the iceberg. **Results:** As a result, the current methods of their prevention and control represent a cornerstone of the activity in any healthcare facility, of any type. Corroboration of the principles of hand hygiene with adequate and correctly applied hospital hygiene, the rules of good medical practice and high impact interventions, audit and feedback, patient screening and the correct management of cases at risk, antibiotic therapy and appropriate antibiotic prophylaxis are the links of a circle- extremely important for the protection of patients, but also for the medical personnel. **Conclusions:** Conclusion: knowledge and application of integrated infection prevention and control measures is one of the basic measures of medical activity for each of us.

Keywords: Hygiene, Prevention, Control, Nosocomial, Infections

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