ACUTE CARDIOVASCULAR EVENTS IN PATIENTS WITH PNEUMONIA AND CARDIOVASCULAR COMORBIDITIES

Nicoleta Nistor, Eudochia Țerna
Disciplina de sinteze clinice, Facultatea de Medicină nr.1, USMF "Nicolae Testemițanu", Republica Moldova

Background. Community-acquired pneumonia represents a major cause of morbidity and mortality, in patients with cardiovascular comorbidities. The interaction between the pulmonary infectious process and the cardiovascular system can lead to acute events, such as acute coronary syndrome and arrhythmias.
Objective(s). Evaluation of the incidence, types and timing of occurrence of acute cardiovascular events occurring during hospitalization in patients with pneumonia and pre-existing cardiovascular diseases.
Materials and methods. Scientific articles were analyzed using electronic databases: PubMed, ScienceDirect, ResearchGate and bibliographic sources from the "Nicolae Testemițanu" University of Medicine and Pharmacy Medical Scientific Library. We examined data from recent literature, including multicenter observational studies and systematic meta-analyses.
Results. The integrated analysis shows an incidence of acute cardiovascular events from 20% to 35% of cases with community pneumonia and cardiovascular comorbidities. In this context, acute heart failure was found in 15-16% of patients, atrial fibrillation constituting 8-9% of cases, and acute coronary syndromes were present in 2-3% of patients. In most cases, complications occur in the first 3 days after hospitalization, triggered by the impact of infectious inflammation on the function of the myocardium and vascular endothelium through changes in nitric oxide synthesis, cyclooxygenase and activation of platelet function.
Conclusion(s). Acute heart failure was found to be the most frequent acute event in patients with community-acquired pneumonia and cardiovascular comorbidities. Careful monitoring of these patients could contribute to the early identification and effective management of these complications.
Keywords: pneumonia, acute complications, heart failure, arrhythmia

INFECTIVE ENDOCARDITIS WITH NEUROLOGICAL COMPLICATIONS. CLINICAL CASE

Valeria Gaina, Elena Jacotă, Elena Samohvalov, Elena Panfile, Corina Turcu, Evelina Feodorovici, Alexandra Grejdieru
Disciplina de cardiologie, Facultatea de Medicină nr.1, USMF "Nicolae Testemițanu", Republica Moldova

Background. Infective endocarditis (IE) is a serious infectious disease, with polyorganic complications, which causes a high risk of death (20-25%). In 20-40% of cases, IE is complicated by neurological disorders as: stroke, mycotic aneurysms, meningitis, cranial nerve paresis and cerebral hemorrhages.
Objective(s). Presentation of the patient's clinical case with infective endocarditis complicated by ischemic stroke. The importance of complex treatment in patients with IE with neurological involvement.
Materials and methods. 59-year-old male, with IE caused by beta-hemolytic streptococcus with mitral valve (VM) involvement, hospitalized in the Institute of Cardiology in severe condition. From the anamnesis: onset with a stroke. Clinically and paraclinically examined by blood cultures, ECOCG, clinical and biochemical analyses, consulted by a neurologist.
Results. Fever 39oC, chills, motor aphasia, paresis on the right side. Objective, pale skin,

petechiae, Janeway lesions. Rhythmic heart murmurs, HR 90 b/min, systolic murmur at the apex and diastolic at the aorta, BP 90/50 mmHg. Paraclinically: BC beta-hemolytic streptococcus. ECOCG: mobile vegetations on MV 10 mm and AoV 12 mm; regurgitation on MV, AoV and TsV of grade III, EF 56%; radiologically – bilateral septic pneumonia; Hb 89 g/l, erythrocytes 2.8x1012, leukocytes 11x109, ESR 66 mm/h; ASLO-1:400; FR 48 U/l. Treatment with 2 antimicrobial regimens in maximum doses, antifungals, diuretics, fractionated direct anticoagulants, nootropic medication.
Conclusion(s). Infective endocarditis can often occur with polyorganic embolic complications, more frequently with stroke and pulmonary thromboembolism, which negatively influence the evolution and prognosis of the disease, causing disability. The treatment of these patients is complex and individualized.
Keywords: stroke, infective endocarditis, individualized therapy

CNS DAMAGE IN CYTOMEGALOVIRUS INFECTION - CLINICS AND DIAGNOSIS

Avanthika Sandhya, Anju Mathew, Adrian Rotari
Department of Pediatrics, Faculty of Medicine nr.2, USMF "Nicolae Testemiţanu", Republica Moldova

Background. Congenital cytomegalovirus (CMV) infection is a leading non-genetic cause of sensorineural hearing loss and neurodevelopmental impairment in children. CNS involvement greatly impacts morbidity. This study reviews clinical features, diagnostic methods, and neuroimaging findings in pediatric patients.
Objective(s). This study aims to review and analyze the clinical features, diagnostic tools, and neuroimaging findings of CNS damage due to congenital CMV in children to enhance diagnosis and management.
Materials and methods. A systematic review was conducted through PubMed, Embase, and Cochrane databases from 2000 to 2024. Pediatric patients (<18 years) with confirmed CMV infection were included. Data were extracted on neurological manifestations, CSF findings, neuroimaging features (USG, MRI), and diagnostic tools including PCR and serology.
Results. Across 32 studies encompassing 5,217 pediatric patients with CMV infection, CNS involvement was noted in 38–75% of symptomatic neonates. Clinical features included microcephaly (45%), seizures (28%), hypotonia (35%), and developmental delay (52%). MRI findings predominantly showed periventricular calcifications, ventriculomegaly, migrational abnormalities, and cerebral atrophy. CSF PCR demonstrated high specificity (>90%) for CMV detection. Neonates with abnormal neuroimaging had significantly lower cognitive and motor scores on follow-up. Sensitivity of dried blood spot PCR for early diagnosis was 84%, while urine CMV PCR remained gold standard.
Conclusion(s). Congenital CMV infection has a significant risk on CNS damage and neurodevelopmental deficits. Early diagnosis using clinical evaluation, neuroimaging, and PCR is vital for better outcomes. Standardized neurodevelopmental monitoring protocols are essential to improve prognosis and guide treatment.
Keywords: congenital CMV, sensorineural hearing loss, CMV, PCR, MRI