

years. Disease duration ranged from 1 to 25 years, with a mean of 8.22 years. 82.5% of patients had seropositive RA; 35% had chronic and 60% progressive disease, while 5% patients had early arthritis. 77.5% of cases had grade III disease activity and 67.5% had grade III functional impairment.

100% of patients administered NSAIDs (diclofenac, nimesulide); various SAIDs (prednisolon, methylprednisolon, dexamethasone) are used in proportion of 92.5% from total number. As to DMARD therapy – 77.5% patients administered methotrexate (7.5-10mg weekly); 20% of patients use either used sulfasalazine (1-2g/24h) in the past and 5% use leflunomide 20mg. 1 (2,5%) patient administered rituximab and 5 (12.5%) – tocilizumab.

**Conclusions:** The main DMARD therapy was the internationally accepted gold standard, methotrexate, while a significant number of patients used sulfasalazine and 5% presently use leflunomide (the second largely accepted DMARD for the treatment of Rheumatoid Arthritis). Although the majority of the patients had severe disease, biological agents were used in small proportions, only 1 patient administered rituximab (anti CD20 therapy) and 5 (12.5%) - tocilizumab (IL6 inhibitor). The main limitation to this restricted use is the cost of the therapy, i.e the yearly cost of methotrexate for the insured patient is of 1200 MDL, leflunomide therapy costs around 20000 MDL, sulfasalazine is 100% covered by the insurance, while rituximab costs 104000 MDL and tocilizumab therapy varies 96-192000 MDL per 1 course.

**Key words:** DMARD therapy, Rheumatoid Arthritis.

## CARDIAC ARRHYTHMIAS AND ACUTE MYOCARDITIS IN CHILDREN – CLINICAL AND ELECTROCARDIOGRAPHICAL STUDY

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**Introduction:** The diagnosis of acute myocarditis (MA) is complicated due to various clinical manifestations - from asymptomatic supraventricular arrhythmias to severe heart failure. The diagnosis of MA should be based on anamnesis data, physical examination, laboratory investigation results (specific serological markers), noninvasive instrumental methods (EKG, EcoCG), and, if necessary, invasive methods (endomyocardial biopsy).

**Aim:** Assessing the proportion and types of arrhythmias in children with acute myocarditis.

**Objectives:**

- to analyze the clinical and paraclinical features of MA in children.
- to assess and analyze arrhythmias on standard EKG in children with MA.
- to estimate the importance of Holter monitoring in establishing the primary diagnosis of arrhythmias associated with MA.

**Material and methods:** The study was retrospective, analyzing the observation cards of 54 children with primary diagnosis of MA, treated in the cardiology department ICȘDOSMȘiC during the years 2009 - 2010, of whom were selected 25 children with rhythm disorders. Patients underwent clinical examination, biochemical analysis and instrumental investigations (EKG, EcoCG mode M, B, Doppler) for the establishment of the clinical diagnosis.

**Results:** The study included 9 girls and 16 boys, with an average age of  $8,3 \pm 5,67$  years. Anamnestic data revealed in 17 (68%) children a prodrome of a viral infection. About 80% of children had clinical signs of cardiac and respiratory disorders. At admission, 20 (80%) children presented signs of

heart failure associated with rhythm disorders. Standard EKG showed: supraventricular extrasystoles in 5 (20,83%) cases, ventricular extrasystoles in 3 (12,5%) cases, extra-junctional extrasystoles in 2 (8,33%) cases, atrio-ventricular dissociation in 2 (8,33%) cases, sinus tachycardia in 2 (8,33%) cases, repolarization process disorders in 2 (8,33%) cases, idioventricular rhythm in 1 (4,16%) case. Holter monitoring has allowed the tracking of the following transitory and concealed arrhythmias: sinus rhythm with shift to atrial rhythm in 2 (25%) patients, sinus tachycardia in 4 (50%) patients, supraventricular extrasystoles in 6 (75%) patients, ventricular extrasystoles in 5 (62,5%) and a case of ventricular tachycardia (12,5%).

**Conclusions:** Of the total number of 54 children with MA, 25 (46,3%) had various isolated and combined arrhythmias and 17 (68%) children had a history of a viral prodrome. The most common arrhythmias revealed with standard EKG were associated with a I-II degree heart failure in 8 (40%) children, of whom 3 with sinus tachycardia, 2 with supraventricular extrasystoles, and 1 child with ventricular extrasystole. Holter monitoring allowed to determine arrhythmias undetected by EKG at rest, including 6 (11,1%) cases of arrhythmias with an increased sudden death risk.

**Key-words:** myocarditis, arrhythmias, Holter-monitoring.

## FEATURES OF INFECTIVE ENDOCARDITIS WITH EMBOLIC COMPLICATIONS

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**Introduction:** Infective Endocarditis (IE) is a severe disease with in-hospital mortality up to 20%, mostly due to embolic complications that increase the risk of death about 3 times. The incidence of cerebral embolism is 17-20% of all patients with IE, while non-cerebral embolism incidence is about 23-27%, both being probably underestimated because of the silent clinical evolution.

**Methods:** Retrospective survey of 94 adults with definite IE admitted in 3 hospitals from November 2008 through January 2012.

**Results:** The average age of the patients was  $51,8 \pm 0,6$  years, including 62% men and 38% women.

In our survey 16 (17%) of patients developed embolic episodes, of which cerebral embolism 6.4%, pulmonary embolism 4.3%, kidney embolism 3.2%, splenic embolism 3.2%, retinal embolism 2.1%, extremities embolism 2.1% and cardiac embolism 1.1%. There is a relatively small percentage of cerebral embolism (6,4%) compared with data reported in literature.

Embolism detected in one organ had a higher rate of 81.3% (n=16) compared to embolization of two organs 18.8%. *Staphylococcus aureus* was more commonly detected 12,5% in patients with embolic episodes (n=16) vs. those without embolic complications – 3,8% (n=78).

In patients with IE and embolic complications transthoracic echocardiography revealed vegetations in 13 (81,3%) versus 49 (62,8%) in those without embolism. In both groups aortic and mitral valve were more commonly affected, but in patients with IE and embolic conditions mobile vegetations were 1,8 times more frequently (50%) than in patients without embolism (28,2%). Also large vegetations (>20 mm) were observed by 2,5 times more frequently in patients with embolism than in those without embolic complications (12,5% vs. 5.1%).

**Conclusions:**

1. Patients with IE complicated by embolism had more frequently proven mobile valvular vegetations and *Staphylococcus aureus* infection.