

### The approach to drug therapy of arrhythmias in children with suspected myocarditis

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Objective: To analyze the antiarrhythmic therapy (AT) effectiveness of ventricular (VA) and supraventricular arrhythmias (SVA), which first were registered in children with suspected myocarditis.

Materials and Methods: We have analyzed the data of 40 patients, mean age  $5,7 \pm 5,5$  years (from 12 months to 17 years): 21/40 with VA and 19/40 with SVA. The disease duration before the first examination in our clinic was  $20,2 \pm 39,2$  months (0-104 months). We used all groups of antiarrhythmic drugs in recommended dosages according to age and anthropometric parameters of patients. Efficiency control was carried out by Holter monitoring with following criteria: reducing the number of single premature beats (PB) by more than 50%, double PB by at least 90% and the absence of ventricular/supraventricular tachycardia. In cases of ineffectiveness, we have varied prescribed medication to another after 5 half-lives periods or used combined AT.

Results: The follow-up period was  $21,2 \pm 17,98$  months (2-66 months). AT was prescribed to 95%(38/40) patients (20/38-VA; 18/38-SVA). Patients received from 1 to 7 drugs consistently, combined AT was required in 34.2% (4 with VA and 9 with SVA). In VA group  $\beta$ -blockers was prescribed in 85%(17/20): Propranolol in 60%(12/20), Metoprolol tartrate in 20%(4/20), Nadolol in 5%(1/20). Amiodarone was used in 70%(14/20) cases. IC class - in 66,6%(12/20): Propafenone in 55%(11/20), Flecainide in 15%(3/20), Lappaconitine hydrobromide in 10%(2/20). Also Sotalol(1/20) and Verapamil(1/20) were used. AT was effective in 55%(11/20) cases, partial efficiency was detected in 20%(4/20), lack of effect –25%(5/20), and in one of them negative result with the development of ventricular fibrillation was observed. In SVA group  $\beta$ -blockers was prescribed in 86,9%(16/18): Propranolol in 44,4%(8/18), Metoprolol tartrate in 44,4%(8/18). Amiodarone was used in 55,6%(10/18) cases. IC class - in 55,6%(10/18): Propafenone in 38,8% (7/18), Lappaconitine hydrobromide in 16,6%(3/18). Also Digoxine(3/18), Sotalol(1/18) and Ivabradine(1/18) were prescribed. The treatment was effective in 61,1%(11/18) and ineffective in 38,9%(7/18) cases. SVAs weren't observed after discontinuation of AT in 6 patients (33,3%).

Conclusion: The choice of AT for children with suspected myocarditis was strictly individual.  $\beta$ -blockers in most cases were the first line of therapy. In both groups we often observed insufficient result of AT.