

Clinical course of myocarditis complicated by atrioventricular block in young children

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Objective To study clinical and prognostic characteristics of clinical course of myocarditis complicated by high degree atrioventricular block (AVB) in young children during three years follow-up.

Methods We enrolled 7 patients under the age of 1,5 years, mean age was $9,3 \pm 4,4$ months (from 3 to 16 months), who had myocarditis complicated with AVB: complete AVB – 4 patients, second-degree – 3. The duration of the AV conduction abnormalities before the admission in our clinic amounted at mean $3,9 \pm 3,6$ months (from 2 weeks to 11 months).

We analyzed their clinical presentations, biochemistry and serology studies, chest X-rays, electrocardiography, echocardiography. The diagnosis of the myocarditis was made in the presence of association between first appear AVB and viral infection and in combination with: elevated markers of myocardial damage and/or cardiomegaly by chest radiography and/or increased left ventricular end diastolic and systolic dimensions with/without decreased ejection fraction. The etiologic factor of the myocarditis was determined in 3 patients: Varicella zoster, Mycoplasma pneumonia, Parvovirus B19. The analysis of the dynamics of the patient condition was made by the comparison first and last visit in our clinic.

Results Mean follow-up was $20,2 \pm 12,6$ months (from 1,5 to 35 months).

During a follow-up period after therapy, cardiac enzymes returned to normal. All except one patient improved their symptoms and signs of heart failure. All patients showed positive dynamics of echocardiographic parameters with the left ventricular ejection fraction improved.

However, all our patients had persistent atrioventricular block, and three of them received permanent pacemaker implantation.

Conclusions The outcome of conduction abnormalities complicated with myocarditis in young children is variable, but in our study atrioventricular block was irreversible.