

Paediatric Infectious Endocarditis in University Hospital during Years 2010-2014

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The guidelines for infectious endocarditis (IE) prophylaxis have been modified during last years. Specialized pediatric cardiac care in Latvia as well as pediatric autopsies is carried out only in University Hospital for Children in Riga.

The objectives of the study were to analyse all cases of IE treated in our hospital during years 2010-2014 or discovered during autopsy in this period of time.

Methods All the cases with IE were selected from hospitals database and/or autopsy register. We analyzed case histories to explore the course of disease, causative agents, echocardiographic findings, underlying conditions, previous hospitalizations and the outcome.

Results. There were 10 cases of IE: 5 girls and 5 boys, age 5.2 ± 4 years. 5 cases aortic valve endocarditis (50%), 2 -mitral valve endocarditis (20%), 2 cases vegetations in contegra conduit (20%), 1-vegetation in right atrium, 1- vegetations on intracardiac pacemaker leads. In 50% of cases the causative agent was not found. 2 cases *Staphylococcus aureus*, 2 cases *Haemophilus* species, 1 case *Streptococcus pyogenes* and coagulase-negative *Staphylococcus* and *Pseudomonas*. 50% patients had previous recent hospitalization due to acute illness (2 cases pneumonia, 2 cases bacterial infection of unknown origin, 1 case arthritis). 60% of patients had underlying congenital heart disease, 40% had previously undergone cardiac surgery. 2 patients had undergone other operations (1 gangrenous appendectomy in patient without heart disease, 1 cleft palate plastics in patient with patent ductus). 30% of patients were in need of inotropic support, 2- ventilation. 1 patient was in need of transvenous pacemaker lead change and 1 patient underwent aortic valve repair 3 years later. In 90% (9) of cases diagnosis was suspected during hospitalization. There were 4 cases of death (40%): 1 case of post-mortem diagnosis of IE in neonate with very late diagnosis of transposition of the great vessels that died of hypoxic multiorgan failure, 1- severe myocarditis with heart rhythm disorders and IE, 2- IE with septic shock.

Conclusions. IE remains a serious condition with high mortality rates and the diagnosis is sometimes challenging. Every patient suspicious for IE should have several blood cultures prior to antibacterial therapy to find the most effective antimicrobial treatment as early as possible.