Congenital and acquired cytomegalovirus infection and hearing evaluation in children
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ABSTRACT

Objectives: The congenital cytomegalovirus infection is one of the most common intrauterine diseases. One percent of live births are affected by cytomegalovirus infection, 90% neonates with perinatal infection do not show symptoms of disease. Symptomatic CMV is present in 5–10% of children. Typical clinical signs of congenital cytomegalovirus infection are microcephalia, mental retardation, progressive major amblyacousia, and neuromuscular infection. Hypoacusis is present in 30–60% of children with congenital symptomatic CMV – in most cases it is bilateral and applies to high frequency hearing loss. The purpose of this thesis is the hearing evaluation in children with congenital and acquired cytomegalovirus infection.

Patients and Methods: A group of 70 children had serological and genetic screening DNA of virus, using PCR method, in urine and blood. In this group, 52 children had diagnosed the congenital CMV, and at 18 children – the acquired CMV. Audiological examinations including PTA, ABR, TEOAE and immittance audiometry was performed.

Results: Bilateral sensorineural hearing losses were in 9 children, associated with mental and physical retardation, brain malformation and microcephalia and in 3 unilateral. In 40 cases, we did not observe hearing loss, although the level of bilirubin was high, as well as splenomegaly, hepatomegaly and paralysis of facial nerve. In the group of children with the acquired CMV, we did not noticed hearing loss.

Conclusions: This research proved that congenital cytomegalovirus infection often caused hearing loss. In spite of this, all children with the congenital and acquired CMV should be permanently control by audiologist.

Key words: Hearing loss, CMV, Children