

# Otoemisja akustyczna wywołana trzaskiem u dzieci z młodzieńczym idiopatycznym zapaleniem stawów

Transient evoked otoacoustic emission in children with juvenile idiopathic arthritis

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## Summary

Juvenile idiopathic arthritis (JCA) is an inflammatory systemic disease of connective tissue which etiology is still unknown. Progressive arthritis is the basic symptom, with pain, oedema, stiffness and movement impediment are typical for. Chronic process of arthritis might be accompanied by rheumatoid nodes, pericarditis, myocarditis, changes in the lungs and kidney, which appear with various frequency and indicates on systemic form of disease. The incudo-malleolar and incudo-stape-dial joints are synovial in type. It should be expected that these joints might be affected by rheumatoid changes similar to those observed in joints in other parts of the body. Copeman was the first who described transient conductive hearing loss in patients with exacerbated rheumatoid process - and he called it oto-arthritis. He stressed that it was the consequence of the rheumatoid lesions in joints of ear ossicles. In adult patients with JCA in 60% of cases the perceptive hearing-loss is observed possibly because of the chronic course of the disease and its farmacological treatment. The aim of the study was the assessment of the functional state of the peripheral part of hearing organ on the basis of TEOAE. This study was preceded by examination of hearing with pure tone audiometry, speech audiometry, high frequency audiometry and impedance audiometry. The analysis of results was done in correllation to form of JCA and its activity. The research was carried out on the group of 45 children suffering from JCA; 14 boys and 31 girls between 5-18 years of age. In all children from experimental group the examination was performed in the active phase of disease process. Mean duration of the disease was 33.5 month. In all children TEOAE was obtained no matter on the form of JCA. Children with systematicus form of JCA - more aggressive type than others - have the recordings of TEOAE with small amplitude and narrow range of frequency. Those results show that rheumatoid lesions in conductive mechanism of the middle ear are insufficient for the development of the conductive hearing loss. As a results of chronic pathological process destructions of hearing organ may lead to the cochlear lesions and this way to perceptive hearing loss.