
Test eferentny ślimaka - czułość i swoistość metody

Efferent suppression test - sensitivity and specificity

Grażyna Lisowska, Grzegorz Namysłowski, Maciej Misiołek, Wojciech Ścierański, Bogusława Orecka, Eugeniusz Czecior, Anna Dziendziel

Introduction. The amplitude of click evoked otoacoustic emissions can be suppressed (reduced) with contralateral acoustic stimulation (CAS). This is thought to be due to the inhibitory control that the medial efferent auditory nerve exerts on outer hair cell function. One commonly used test of medial olivocochlear (MOC) function in humans involves measuring the degree of suppression of ipsilateral otoacoustic emissions (OAEs) by CAS. This effect is called contralateral suppression, efferent effect or olivocochlear reflex. Aim of the study. The objective of this study was to measure cut-off level of contralateral suppression, sensitivity and specificity of the efferent test. Material and methods. To evaluate the function of MOC system click evoked otoacoustic emissions (CEOAEs) with and without continuous contralateral broadband noise (BBN) stimulation were recorded in 14 patients with multiple sclerosis, 16 patients with unilateral cerebello-pontine angle tumor and control group matched for age and gender. BBN was presented at 50 dB SL and otoacoustic emissions were recorded in response to nonlinear clicks at 70 +/- 3 dB SPL. Results. The cut-off level was established at -1.4 dB. For 1.4 dB cut-off level of contralateral suppression the sensitivity of the efferent test was 90% and specificity was 70%. Conclusions. To conclude, assessment of efferent suppression may be a useful addition to the battery test employed in the investigation of multiple sclerosis and cerebello-pontine angle tumors. The MOC suppression test may provide a tool for an early diagnosis of the brainstem pathology.