
Własne doświadczenia w rozpoznawaniu uszkodzeń słuchu za pomocą audiometrii impedancyjnej

The value of impedance audiometry in the hearing loss diagnosis

Sylwia Kowalska, Wiesław Konopka, Renata Słomińska, Jurek Olszewski

Introduction. The aim of this work was to assess the value of impedance audiometry in the differential diagnostics of hearing disorders, especially in patients suffering from tinnitus. Material and methods. The analysis dealt with results of the audiological tests in 198 patients (116 female and 82 male), hospitalised in 2007 due to their hearing deterioration, tinnitus or sudden deafness. The conducted audiological tests covered threshold and suprathreshold pure tone audiometry, speech audiometry, BERA and impedance audiometry. Results of the studies. Women (58.5%) and people over 50 years old (58.6%) constituted the majority of the patients. In 166 (83.8%) patients the conducted tests via impedance audiometry did not prove any deviations from the normal condition, the lesions referred to both ears in 32 (16.9%) patients and one ear in 17 (8.5%) patients. An incorrect tympanogram was found in 23 people, including type As in 11, type Ad in 2, type B in 4 and type C in 6 subjects. Low values of acoustic receptivity of the middle ear were noted in 20 ears, whereas high values in 11 ears. In 3 ears we found low values of the gradient (below 0.3), high values - in 11 ears. The middle ear pressure between -170 and -350 daPa was noticed in 20 ears, and positive values, above +50 daPa up to +75 daPa, in 3 ears. Disorders in the stapedial refl ex registration were observed in 38 (19.1%) patients. The assessment of the conducted subjective and objective audiological examinations allowed to recognise bilateral perceptive hearing injuries in 139 patients, including 49(25,9%) of cochlear origin with OWG, in further 70 patients the hearing loss referred to higher frequencies and was rather slight. Conclusions. The own experiences indicated that the impedance audiometry constitutes the integral part of contemporary audiological diagnostics and still remains an objective method facilitating quick, non-invasive evaluation of the functions of particular elements in the middle ear.