Wpływ wieku na poziom emisji otoakustycznych u osób z prawidłowym słuchem

The influence of aging on otoacoustic emissions in normally hearing subjects

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Summary

Introduction. The objective of this study was to measure age-related changes of otoacoustic emissions level in subjects with normal hearing in tonal audiometry. Material and methods. Click evoked otoacoustic emissions (CEOAEs) and distortion-product otoacoustic emissions (DPOAEs) were recorded in 146 (n = 292 ears) subjects. Otoacoustic emissions were recorded in response to nonlinear clicks and two different primary tones (L1 = 65, L2 = 55 dB SPL; f2/f1 = 1.22) from 1 to 5 kHz. Subjects were divided into three age groups: young (19.8 ± 4.6 years), middle-age (31.2 ± 4.3 years) and old (48.2 ± 5.9 years). All subjects had normal hearing and middle-ear function based upon standard audiometric criteria. Results. The principal findings were that CEOAEs and DPOAEs levels were smaller in the old group compared to the young and middle-aged groups, especially at the higher frequencies. Conclusion. The influence of age on the level of otoacoustic emissions was found.