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Peculiarities of Age Related Hearing Loss in Females and Males

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Background/aims:

No standards exist currently for prevention or treatment of presbycusis. New approaches seem thus necessary to the problem of age related hearing loss. With this goal in mind, we attempted to assess the gender peculiarities of the dynamics of presbycusis. Information on age related hearing impairments in females and males was expected to promote the search of effective designs for their prevention, management, rehabilitation.

Methods:

Hearing acuity was measured in 128 females and 96 males. None of subjects reported any noise exposures or other hearing confounding histories in the past. Auditory thresholds were estimated by tonal audiometry at 0.125-16-kHz frequencies.

Results:

Initial signs of hearing impairments were revealed in females and males of 40-49 and 30-39 years of age, respectively. In both genders the disorders involved high sound frequencies. In the following age decades, 50-59, 60-69, and 70-79 years, the hearing loss progressed in magnitudes and extended to lower frequencies. From the age of 30-39 to that of 40-49 and 50-59 years the dynamic of threshold elevations appeared more rapid in males vs. females. The gender differences in hearing sensitivity accentuated respectively in this age period. Thereafter, in the ages of 60-69 and 70-79 years, the hearing alterations became steeper in females than in males. As a result, the gender differences in hearing smoothed or negated.

Conclusion:

Age related hearing impairments in females and males possess different characteristics. The dissimilarities concern starting time as well as a rate of hearing losses within different age spans. A significance of early detection of ageing processes in auditory system with application of both subjective and objective procedures and of timely start of respective preventive and treatment actions has been emphasized.

