

Abstract EFAS/DGA 2007

Hearing in two samples of 55- to 65-year-old populations in Northern Finland

Mäki-Torkko, E. (1, 2), Hannula, S. (1), Jounio-Ervasti, K. (2), Sorri, M. (2)

(1) Dept. of Otorhinolaryngology, University of Oulu, Finland

(2) Dept. of Otorhinolaryngology, Linköping University Hospital, Linköping, Sweden

Although there is significant individual variation, some ARHI (age-related hearing impairment) changes can be seen from 50 years of age onwards in western populations. According to current knowledge, both genetic and environmental factors are involved in ARHI. In order to investigate the hearing of 55- to 65-year-old people in Northern Finland, two population-based samples were collected at an interval of 20 years. The participants were recruited randomly from the population register. The first sample (Sample I, N = 851) consisted of 378 men (44.4 %) and 473 women (55.6 %), and the second sample (Sample II, N = 835) of 378 men (45.3 %) and 457 women (54.7 %). Sample I was examined in 1983-1986 and Sample II in 2003-2005. After otoscopy, air conduction thresholds were measured at 0.125, 0.250, 0.5, 1, 2, 3, 4, 6 and 8 kHz, and bone conduction thresholds at 0.250, 0.5, 2 and 4 kHz. Medians of better ear hearing levels at frequencies of 0.5, 1, 2 and 4 kHz (BEHL 0.5-4 kHz) and of individual thresholds at frequencies from 0.125 kHz to 8 kHz were calculated. Background information was elicited by means of a structured interview. Background factors, such as subjective hearing difficulties, ear diseases, general health, occupational and leisure time noise exposure and family history of hearing impairment, were covered. The median of the better ear hearing level (BEHL 0.5-4 kHz) was 13.75 dB HL in both samples. In Sample I, the median BEHL 0.5-4 kHz was 11.25 dB HL for women and 17.5 dB HL for men. In Sample II, the corresponding figures were 12.5 dB HL and 13.75 dB HL. The hearing of both women and men at different frequencies will be described, and the role of different background factors will be discussed.

