Evidence of Increased Average Age of Patients with Otosclerosis


Abstract:
Otosclerosis is an inflammatory disease of the human temporal bone which was assumed to affect up to 10% of the Caucasians. Histologic otosclerosis has an incidence of 3.4%. It is considered as a major cause of hearing loss in Western countries while a low incidence is observed among Africans. Many hypotheses about its origin had been formulated in the past. Otosclerosis genes (OTSC1-5) and collagen 1 genes are mutated in some familial cases of otosclerosis. On this genetic background, a common environmental factor such as a measles virus infection might be the triggering factor. Studies in the past indicated a distribution of otosclerosis among men and women of 1:1.4. Our study was designed to analyze the age of patients with otosclerosis at the time of surgery in the eighties and the nineties of the last century. Patients suffering from clinical otosclerosis who underwent stapedectomy between 1978 and 1999 with complete clinical data available (n = 1,351) were included in the study. Age and gender distribution, the age difference between men and women and the influence of gender and the year of recruitment were evaluated. Statistical analyses demonstrated an increase in the average age of patients with clinical otosclerosis from the eighties to the nineties (p = 0.012). The gender distribution showed no statistically significant variation (p = 0.398). These data might reflect an improved health consciousness among the elder population or could be the result of increased health awareness in
the seventies and eighties. Finally, in the early seventies, measles virus vaccination was introduced in Germany and the shift of age could be the result of the measles virus immunization campaign.