

Screening for Hearing Impairment in Hospitalised Elderly

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Abstract

Objectives: The objective of this study was to determine the prevalence of hearing impairment in hospitalised elderly patients using the Welch Allyn Audioscope 3. **Patients and Method:** Consecutive geriatric patients admitted to an acute 38-bedded geriatric ward over a 4-week period in 1998 were screened for hearing impairment. The examination was conducted in a quiet side-room adjacent to the ward. Ability to hear normal conversation at arm's length and the whispered voice were noted. A conventional auroscopy was done. Screening using Welch Allyn Audioscope 3 was then conducted at 40 dB using speech frequencies of 500, 1000 and 2000 Hz. Individuals who failed to respond at any 2 frequencies in the better ear were deemed to have significant hearing impairment. Patients with impacted earwax had repeat audioscopic examination after wax was cleared. **Results:** One hundred and twenty-four patients were enrolled. Fifty-four patients were excluded from the study: 37 patients had dementia, 11 were critically ill, 5 were dysphasic while 1 had acute confusion. The remaining 70 patients were included in the study. The median age of the study group was 81 years (range 72 to 96 years). There were equal number of males and females. Forty-seven (67.1%) patients had hearing impairment. Nineteen (40.4%) out of 47 hearing-impaired patients could not hear normal conversation at arm's length while 34 (72.3%) out of the same 47 patients failed the whispered voice test. Only 22 (46.8%) hearing-impaired patients complained of hearing difficulties. Four out of the 47 hearing-impaired patients possessed hearing aids. Majority (83.0%) of patients with hearing impairment did not want hearing aids and cited "no necessity" as the main reason for not wanting them. Five (7.1%) and 12 (17.1%) patients had bilateral and unilateral impacted ears respectively. Two out of 20 ears cleared of wax improved by one tone on repeat auroscopy. **Conclusion:** The prevalence of hearing impairment in hospitalised elderly patients was found to be very high during screening with an audioscope. However, identification of hearing impairment using the audioscope was not associated with keenness of wanting a hearing aid. The important factors associated with keenness for wanting a hearing aid were difficulty with hearing conversation at arm's and complaint about being handicapped socially by hearing difficulty. Screening for hearing impairment should be part of the routine in the examination of a hospitalised elderly as the prevalence of the disease is very high. Ability to hear normal conversation at arm's length alone was not a reliable method of screening for hearing impairment and it should be complemented by the whispered voice test. The audioscope is an expensive instrument and not widely available. Although the audioscope screening method was able to pick up more cases of hearing impairment, it did not result in more patients wanting hearing aid. Those detected to have hearing impairment will require further counselling regarding the usefulness of a hearing aid and detailed audiological assessment if they are keen for a hearing aid.

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