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Sensorineural Hearing Loss in Patients with Chronic Otitis Media

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Objectives: Chronic otitis media is currently associated with an increase in air conduction thresholds. However, a few groups reported a decrease in sensorineural function in these patients. This study evaluates the occurrence of sensorineural hearing loss in patients with chronic otitis media.

Methods: The records of patients with unilateral chronic otitis media were reviewed. Eighty-four patients met the inclusion criteria that were normal otoscopy and normal hearing in the contra lateral ear. Bone conduction threshold averages were calculated over 500 Hz, 1000 Hz, 2000 Hz, 3000 Hz and 4000 Hz frequencies. We compared the bone conduction threshold averages between the normal ear and the ear with chronic otitis media. Thresholds were examined separately for each frequency.

Results: The bone conduction threshold averages in the normal side were smaller than those of the chronic otitis media ear. The threshold shift was statistically significant in each frequency ($P < 0.001$ *t* Student test) but in 500 Hz ($P = 0.16$). There were no differences between the groups when we analyzed the role of age or in the role of the cholesteatoma presence in the sensorineural hearing loss.

Conclusions: This study shows that chronic otitis media is associated with decrease in cochlear function. Neither the

presence of cholesteatoma in the middle ear nor the patients' age showed any influence in the sensorineural hearing loss.