

# Otosclerosis, clinical long-term perspectives

Ylva Dahlin Redfors

Department of Otorhinolaryngology, Institute of Clinical Sciences  
Sahlgrenska Academy at University of Gothenburg, Sweden

## ABSTRACT

This thesis has assessed medical, technical and health-related aspects of otosclerosis from a long-term perspective. A retrospective clinical study was performed where 65 subjects who had previously undergone stapedectomy (1977-1979) were assessed. Twenty-eight - Thirty years later a follow-up was conducted. In Paper I, hearing thresholds were studied. Thirty years after surgery the mean hearing impairment was comparable with the preoperative level. The hearing deterioration was mainly caused by sensorineural hearing loss which was significantly worse compared to an age and sex matched control population (ISO 7029). In Paper II, hearing aid use and satisfaction were analyzed. Almost all subjects (95%) would have benefitted from hearing aid rehabilitation, however only 54 % had been fitted with hearing aids. Subjects who had received hearing aids were generally everyday users (94 %) and were very satisfied with their hearing aids. In Paper III, hearing disability and health-related quality of life was assessed. The subjects experienced hearing problems, especially in complex listening situations and in localization of sounds. Health-related quality of life showed results comparable to that of the reference population. In Paper IV, 20 of the subjects were analyzed by multi-slice and cone-beam CT (MSCT, CBCT) to assess the applicability of CBCT in the assessment of otosclerosis. The study showed that CBCT was valid in the assessments and in many ways was equivalent to MSCT.

**Keywords;** Otosclerosis, hearing loss, conductive, stapedectomy, hearing aid, health-related quality of life, hearing disability, SF-36, SSQ, IOI-HA, MSCT, CBCT

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- I. Redfors YD & Möller C  
Otosclerosis: Thirty-year follow-up after surgery  
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- II. Redfors YD, Hellgren, J, Möller, C  
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*Int J Audiol, 2013,Early Online 1-6*
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