

Conductive Hearing Loss Secondary to a Dehiscent Facial Nerve Over the Oval Window: A Case Report

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Introduction

Purely conductive hearing loss with intact tympanic membrane in a young, adult patient is highly suggestive of otosclerosis or other ossicular disease. A differential diagnosis must always be considered before ultimate surgical treatment.

Objectives of the Study

To describe a case of unilateral, conductive hearing loss secondary to tympanic facial nerve dehiscence, mimicking otosclerosis of the round window.

Resumed Report

A 28-year-old male patient presented to our Department complaining of long-term, unilateral hearing loss and mild tinnitus in the left ear. Otoscopy was absolutely normal. Sound perception was better heard on the right side during Weber test. Audiological assessment revealed mild to moderate conductive hearing loss in the affected ear (Figure 1). Contralateral thresholds were normal. High-resolution CT scan revealed a dehiscent tympanic facial nerve completely over the oval window (Figure 2). No otosclerotic foci were identified [1-3].

Figure 1: Air and bone thresholds revealing a moderate conductive hearing loss on the left ear.

Figure 2: Left ear. CT scan, coronal view. Dehiscent tympanic portion of the facial nerve occupying the oval window niche (blue arrow).

Conclusion

In this case CT scan was crucial for a proper diagnosis. Even if ossicular disturbances predominate in cases of conductive hearing loss without inflammatory middle ear disease, differential diagnosis as third window syndrome and tympanic facial nerve dehiscence must be always taken into consideration.

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