Resolution of Mixed Hearing Loss following Epithelial Debris Removal from the Tympanic Membrane
Margaret Halinski, Au.D.
Sunnyview Rehabilitation Hospital, Schenectady, NY

Case Presentation

88 year-old female presented with:
- Asymmetrical, mixed hearing loss
- Intermittent right-sided tinnitus
- No report of vertigo or ear surgery
- Medical history significant for ataxia and GERD
- Flat type B tympanogram for the right ear
- Otoscopy revealed clear ear canals with easily visualized tympanic membranes bilaterally
- Phonak Mio Plus CICs dispensed at another clinic
- Aids did not match target and were reprogrammed
- Ideal targets for the right ear could not be matched due to degree of mixed loss
- Referral was made to ENT for medical management

New hearing aid fitting

- Widex Unique 440 Fusion RIC hearing aids
- Debris build up medial to overhang
- Symmetrical hearing from 0.25 kHz - 6 kHz
- No report of vertigo or ear surgery
- Referral was made to ENT for medical management

Case Resolution

- Right ear hearing improvement at 0.25-2 kHz - PTA improvement by 16.67 dB
- Audiogram at ENT clinic revealed no improvement
- Report stated “no answer to flat tym and CHL”
- Phonak Milo Plus CICs dispensed at another clinic
- Immediately following procedure patient noted improvement in hearing
- Positive Rinne, AC>B/C
- Pre-Removal: 0.25 kHz, BC>AC; normal Weber
- Post-Removal: 0.25 kHz, BC<AC; normal Weber

Re-evaluation

- Pure Tone Average (PTA) at 1, 2, 3 kHz for Right Ear
  - Pre-Removal: 36.66 dB
  - Post-Removal: 53.33 dB

References


Discussion

- This case demonstrates the possibility of mixed hearing loss resolution, necessity of ENT referral, and identification of a pathology that is not readily apparent by all ENT physicians.
- Instances of epithelial debris are rare in the literature. However, some cases of other growths on the tympanic membrane have been reported including keratosis obturans, fibrosis, and squamous cell carcinoma.
- Desquamation and epithelial migration have been discussed as well in the literature, but few cases have been reported involving mixed hearing loss and resolution as presented in this case.