Panel: Endoscopic vs. Microscopic-Assisted Stapedectomy

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Speaker Disclosure

Consultant for:
- Med-el
- Advance Bionics
- Cochlear
- Grace Medical
- Stryker
- Cook Medical
Is it safe?
Do we have to remove scutum?

• Scutum anatomy
  – 77.1%
    • prevented placement with a straight alligator in of cases

• Chorda tympani
  – Manipulated: 94.0%
Laser vs. Drilled Stapedotomy
Does it matter!!!
What about revision cases?
Is there any difference?
CASE 1

- 45 year old female
- Diagnosed with otosclerosis at age 33 and had surgery at age 34.
- No hearing improvement.
- No dizziness.

CT vs. no CT?
CASE 2

• 57-year-old male
• Dx. Bil Otosclerosis in 2013.
• Middle ear exploration:
  – Unfavorable Anatomy
  – Stapes very posterior
  – Facial dehiscence.
Dehiscent Facial Nerve?
Dehiscent Facial Nerve
Dehiscent Facial Nerve

Post-op 12m

FREQUENCY IN HERTZ (Hz)

HEARING LEVEL IN dB (AVER 1996)
Should we be doing stapes surgery in children?
Congenital Stapes Malformations
Congenital Stapes Malformations
Congenital Stapes Malformations
Should we be doing stapes surgery in Osteogenesis Imperfecta?
CASE 4

- 13-year-old girl
- Osteogenesis Imperfecta
- Blue sclera bilateral
- Bilateral CHL
- Wears HA for past 7 years
CASE 4
CASE 4

Pre-op

Post-op
CASE 5

- 45-year-old male
- Left-sided otosclerosis
- 2016: EES stapedotomy with a 4.5 mm prosthesis
- Hearing worsen in last 6 months
CASE 6

• 63-year-old female
• 1990s: Bil Otosclerosis
• 1999: Stapes Sx
• Good hearing for 20 years.
• 2014: Left sudden hearing loss.
• 2014: Revision surgery, failed.
• 2015: 2\textsuperscript{nd} Revision Surgery
Incus Erosion and Perforation
Malleostapedotomy- Post-op
Revision Malleostapedotomy

Pre-op

Post-op
Biscuit Footplate – can this be dealt with using one hand?
FOOTPLATE FRACTURE

AUDIOMETRIC TEST

Woman, 55 Years Old

Monolateral Air-Bone Gap
FOOTPLATE FRACTURE
F.U. 2 months - No tinnitus - No vertigo
Persistent Stapedial Artery?
PERSISTENT STAPEDIAL ARTERY

AUDIOMETRIC TEST
PERSISTENT STAPEDIAL ARTERY
Conclusion

• Endoscopic stapes surgery is a safe and effective technique for managing otosclerosis

• The laser is the ideal instrument for endoscopic stapedotomy, but if not available, our results highlight the importance of doing an endoscopic stapedectomy

• Endoscopes provides paramount benefits in revision stapes cases, congenital stapes fixations and malformations.
Questions