Chronic Suppurative Otitis Media in Patient with Cochlear Implant; One-step Surgery

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Background

- Chronic suppurative otitis media (CSOM) in patients with cochlear implant were report in some cases.
- The infection may spread along the main electrode into scala tympani.

Objective

- This case report has purpose to discuss the management of CSOM in patient with cochlear implant.

Case

- Female, 4 years old with unilateral implantation on the right ear in October 2015. At the time of surgery was found middle ear effusion.
- In the middle year of 2017. There was recurrent infection and resolve with antibiotic. Evaluation on August 2018 showed the main electrode has been exposed into ear canal.
- The second white marker ring is clearly seen and the dacron mesh is positioned medial to the electrode. (fig. 1)
- CT scan shows the length of intra cochlear electrode is 21 mm. The first marker is at round window or cochleostomy site and the second marker is at tympanic membrane level. (fig. 2)
- The revision done in one-step. The surgery begins with remove all infected tissue in mastoid cavity and middle ear followed by cartilage tympanoplasty. Intra cochlear electrode explant and the new electrode implant directly.

Results

- Evaluation after surgery, tympanic membrane was intact and hearing evaluation after switch on show the same result with the hearing before surgery.

Conclusion

- Middle ear effusion is the sign of risk of CSOM in patient with cochlear implant.
- One-stage operation for explant and re implant the new electrode in patients cochlear implants with CSOM will reduce costs and can provide the same hearing result.