

Objective: This study intends to present the success of the membrane closure and audiological earnings of tympanoplasty operations using composite tragal cartilage, in our clinic.

Materials and Methods: One hundred and seventy one patients with diagnosis of chronic otitis media without cholesteatoma (classified in accordance with types of perforation) who treated with tympanoplasty using tragal cartilage graft between the years 2006–2014 was included to the study.

Results: The study included 171 patients, 73 were men and 98 were women. The range of the age was 13–71. Mean age was $31,7 \pm 12,5$. Follow-up period ranged from 99 months to 8 months, and the average was 34 months. There was central, attic, marginal and total perforations in 147 (85,9%), 13 (7,3%), 9 (5,3%) and 2 (1,2%) patients, respectively. Preoperative retraction was found in 12 (7%) of patients. In preoperative examination tympanosclerosis was observed in 26 (11,1%) patients. Patients' preoperative air-bone gap values were between 6–80 dB and, mean was 34 ± 13 dB. In 26 patients tympanosclerosis (11,1%) was observed in accordance with the preoperative examination. The Standard surgical technique applied in this study and in the postoperative examination complete and incomplete closure was seen in 145 (84,8%) and 26 (15,2%) patients, respectively. In the postoperative audiological evaluation, statistically significant increase was seen in air-bone gap values at 500 Hz, 1000 Hz, 2000 Hz, 4000 Hz ($p < 0.01$).

Conclusions: The success of membrane closure at tympanoplasty operations using cartilage graftmaterial is superior to other grafts which are physically thinner and more flexible compared to cartilage. In terms of hearing values, the results are similar with the operations carried out with other graft materials.

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Endoscopic Assisted Petrosectomy via Middle Fossa Approach for Isolated Petrous Bone Cholesteatoma

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Learning Objectives: Endoscopic assisted surgery for petrous bone cholesteatoma can be used safely.

Objective: The petrous bone cholesteatoma (PBC) is used to describe an epidermoid cyst of the petrous portion of the temporal bone. Sanna et al have classified PBCs into five groups: supralabyrinthine, infralabyrinthine, infralabyrinthine-apical, massive, and apical. Besides, these terms describe both the extent of the lesion and the location.

The appropriate surgical procedure for PBC is frequently radical surgical removal such as the labyrinthectomy and/or rerouting of the facial nerve. However, it may

have to be modified, depending on the status of the contralateral ear. Therefore, location and extend of the pathology is defined to adequate surgical approach with modification. Recently, some studies have described to “minimally invasive cholesteatoma removal” which were aimed to preserve hearing and facial nerve functions for treatment of the PBC.

Methods: We performed standard middle fossa craniotomy to access to petrous apex. Otomicroscope was used to remove the most part of the cholesteatoma, but in some hidden area such as infralabyrinthine area, medial part of the carotid artery, endoscope (4 mm 0 or 45 degree) was used.

Results: Here we present 4 cases with infralabyrinthine-apical cholesteatoma who underwent endoscopic assisted surgery via middle fossa approach. We were able to preserve hearing in 2 patients. In another 2 patients, labyrinth was already invaded by cholesteatoma and the hearing was not able to preserved.

Conclusion: Endoscopic assisted surgery via middle fossa approach can be help removal of infralabyrinthine-apical or massive without cochlear resection, labyrinthectomy and facial nerve injury. Moreover, it may help to reduce the residual cholesteatoma mostly in hidden recess.

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Surgical Intervention of Early Stage Primary Acquired Cholesteatoma

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Learning Objectives:

Objective: The purpose of this study was to investigate the surgical intervention and hearing preservation of early primary acquired cholesteatoma.

Methods: A case of bilateral early primary acquired middle ear cholesteatoma was reported. The different operative management of each ear was reviewed. Postoperative effect and hearing outcome were followed up.

Result: A 27-year-old male complained of intermittent bilateral otorrhea for seven years. The pure tone audiometry was 22 dB for the right ear and 28 dB for the left. Based on clinical history combining with CT imaging, the patient was diagnosed with bilateral primary acquired cholesteatoma. The two ears were operated separately in 1-year interval.

At surgery of left side, the ossicular chain was wrapped around by cholesteatoma which involved the region inside the ossicular chain. Hence the incus and head of malleus was removed. Then partial ossicular replacement prosthesis (PORP) were used to reconstruct the left ossicular chain and the epitympanum was reconstructed with cartilages.