

#### A0040: Anatomical and Audiological Outcomes of Cartilage Tympanoplasty

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**Aim** To evaluate anatomical and audiological outcomes of cartilage tympanoplasty.

**Materials and Methods** A prospective, observational study (pilot study) was undertaken at a tertiary referral institute in North Karnataka. The study included 30 patients with chronic otitis media requiring tympanoplasty. Tympanic membrane reconstruction was done using 0.5 mm thickness conchal cartilage. Patients with tubotympanic and atticofacial disease were included in the study. Patients were assessed at first and third postoperative months for graft uptake and hearing evaluation was conducted using pure tone audiometry for the frequencies 500 Hz, 1 K, 2 K, and 4 K.

**Results** A successful outcome was defined as complete healing of graft without retraction and lateralization for minimum 3 months of follow-up. Twenty-eight patients had fully epithelialized, completely healed grafts postoperatively at 1 month. Two cases had small residual perforation which healed on chemical cauterization on subsequent follow-up. The mean air-bone gap considerably reduced from  $30.4 \pm 4$  dB preoperatively to  $16.1 \pm 5$  dB postoperatively.

**Conclusion** Tympanic membrane reconstruction using 0.5 mm thickness cartilage provides good anatomical and audiological results with significant improvement in hearing, especially in subtotal perforation, where healing of tympanic membrane has much poorer prognosis irrespective of surgical technique used.

**Clinical Significance** In India, temporalis fascia is the widely used graft material despite the proven publications, reiterating the efficacy of cartilage tympanoplasty. The present paper highlights the good anatomical and audiological outcomes.

#### A0041: Tegmen Tympani Defect and Temporal Lobe Encephalocele, Secondary to Mastoid Surgery

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**Case Report** Tegmen tympani defect and temporal lobe encephalocele, secondary to mastoid surgery.

**Introduction** Brain herniation into middle ear is very rarely seen in addition to reasons like congenital factors, trauma, and infection. Tegmen defect may develop as a result of iatrogenic events secondary to chronic otitis media surgery with or without cholesteatoma. Since it may cause life-threatening complications, patients must be evaluated and monitored for tegmen defect.

**Case Presentation** A 47-year-old male patient underwent modified radical mastoidectomy for chronic otitis media with cholesteatoma, by surgeons in West Bengal, followed by a growing mass observed after 2 years postoperatively at the right external auditory canal. CT and MRI showed defect in tegmentum tympani with temporal lobe herniation with CSF. The transmastoid approach was done

by otorhinolaryngologist, and cystic lesion in external auditory canal was aspirated and CSF confirmed. Neurosurgeon excised the herniated glial tissue using bipolar cautery. Duroplasty was done, and fibrofatty tissue, bone wax, and temporalis fascia graft were placed. No postoperative complications were noted.

**Discussion** Bone erosion and dural injury can be observed due to chronic suppuration or as a complication of mastoid surgery in chronic otitis media. It can be due to cholesteatoma or bone erosion with involvement of inflammatory process due to enzymatic destruction. Surgical approaches for meningoencephalocele, due to tegmen defect, transmastoid approach, middle fossa approach, and combination of both. In our case, transmastoid approach was chosen by considering the localization and small size of defect. Postoperative complications like, epileptic seizures, CSF leak, transient ischemic attack/stroke, can be expected. However, these complications were not observed in our case.

**Conclusion** Patients who underwent operation due to chronic otitis media with or without cholesteatoma must be evaluated for tegmen defect and brain tissue or dural structures that may be herniated through this defect during and after the surgery. Possible defects must be repaired with appropriate surgery methods and graft materials by considering the localization and the size of the defected area.

#### A0042: Study on Use of Platelet-Rich Plasma in Myringoplasty

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**Introduction** Success rate after myringoplasty has a wide range from 70 to 80%. Therefore, there is still a need to search for methods to enhance tympanic membrane healing after myringoplasty to increase success rate. In our study, we have compared the use of platelet-rich plasma (PRP) in myringoplasty. The platelets are best known for their importance in clotting blood. However, platelets also contain hundreds of proteins called growth factors which are very important in the healing of injuries. PRP is plasma with many more platelets than what is typically found in blood. The concentration of platelets and, thereby, the concentration of growth factors can be 5 to 10 times greater (or richer) than usual. The study focuses on the use of prepared autologous PRP which is kept on the lateral surface of graft and TM remnant postmyringoplasty and results were noted with respect to the uptake of graft in such patients.

**Aim** To assess the topical use of autologous PRP to improve success rate of myringoplasty.

**Objectives** To compare pre- and postoperative graft uptake and audiological benefit, following myringoplasty with and without PRP.

**Methods** Patients were diagnosed cases of chronic suppurative otitis media tubotympanic type who were divided into groups of 35 each. Patients in first group underwent myringoplasty with PRP, while those in second group underwent myringoplasty without PRP. Pre- and postoperative