

A0018: Tympanomastoidectomy: Microscopic or Endoscopic

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Introduction Microscopic surgery is the gold standard for surgeries of the middle ear, mastoid, and lateral skull base. Microscopic ear surgery is performed at a very high level, with very good results with respect to control of pathologies and hearing function. Although endoscopic ear surgery is still in its infancy, it is gaining increasing attention internationally. The first reason for this increasing interest is the patients' wish for minimal invasive surgery to avoid an external incision.

Aim To study whether endoscopic ear surgery is safer and less invasive than conventional tympanomastoid surgery using an operating microscope.

Materials and Methods There are 100 patients who underwent endoscopic ear surgery and another 100 patients in whom microscopic tympanomastoidectomy was performed by the same surgeon. The two surgical techniques were compared with respect to disease clearance from middle ear and mastoid, the time taken for operation, postoperative hearing results, postoperative complications, and postoperative pain.

Results Here, no differences in operating time or postoperative graft take up and hearing between the endoscopic and microscopic groups were observed. There was very little postoperative pain in the endoscopic group. In endoscope group, disease clearance was difficult when mastoid tip was involved. In microscopic group, disease clearance was difficult when sinus tympani was involved.

Conclusion In tympanomastoidectomy, microscope and endoscope compliment to each other. With combined use of microscope and endoscope, we can attain good results in tympanomastoidectomy with minimal morbidity.

A0019: Endoscopic Exploratory Tympanotomy: Our Experience

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Aim To enlist and analyze the middle ear pathologies in patients with conductive hearing loss with intact tympanic membrane by endoscopic exploratory tympanotomy.

Materials and Methods In this retrospective study, 88 patients in age group between 14 years and 50 years, with hard of hearing were evaluated. Clinical examination, pure tone audiometry and tympanometry were done for all patients. Patients with conductive hearing loss with intact tympanic membrane with no previous history of ear discharge were taken up for endoscopic exploratory tympanotomy, and operative findings noted.

Results In our study, most common middle ear pathology was otosclerosis (69%). Other middle ear causes for conductive hearing loss were tympanosclerosis, mucosal adhesion bands, and middle ear anomalies. Ten patients underwent revision stapedotomy, while seven patients had normal middle ear findings despite conductive hearing loss. Other anatomical abnormalities posing challenge for stapedotomy

in confirmed otosclerosis included dehiscent fallopian canal and dehiscent high-lying jugular bulb.

Conclusion and Clinical Significance The study provides us insight into various causes of conductive hearing loss behind an intact tympanic membrane with no previous history of ear discharge. The advantage of endoscopic exploratory tympanotomy was clear view of middle ear anatomy and aiding as an excellent teaching tool.

A0020: Cholesteatoma of the External Auditory Canal: Review of Staging and Surgical Strategy

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Introduction EACC is insidious in nature and rare entity. There are only few case series on EACCs, and surgical strategy is not standardized.

Objectives (1) To elucidate etiology of EACC and cardinal features. (2) To suggest a practical staging of EACC. (3) To enumerate surgical management according to stage of EACC.

Study Design Retrospective study in a quaternary referral center of 31 consecutive cases of EACC.

Results Thirty-one patients with EACC were reviewed. Unilateral otorrhea 19 (61.2%), hearing loss 22 (70.9%), and otalgia 8 (25.8%) were cardinal symptoms. Sixteen primary and 15 secondary EACCs were treated. Bone erosion was seen in 20 cases. In the present series, stage III = 12 (38.7%), stage II = 8 (25.8%), and stage I = 11 (35.4%) underwent definitive treatment by surgery. Canalplasty with reconstruction was done in 19 cases of stages I and II. Of 12 cases in stage III, 3 cases underwent canalplasty with reconstruction. Subtotal petrosectomy was done in five cases. Intact canal wall mastoidectomy with canalplasty in two cases and radical mastoidectomy in two cases. Fascia, cartilage, muscle, and bone dust were used for reconstruction. Median follow-up period was 6 years and no recurrence of cholesteatoma was seen.

Conclusion EACC is a unique entity. Intraoperative and radiological findings assist in correct and practical staging of EACC. Late stage presentations of EACC are common. Definitive surgical treatment in our series avoided recurrence of cholesteatoma.

Keywords external auditory canal, cholesteatoma, canalplasty, subtotal petrosectomy

A0021: Conchal Cartilage Cap for Stapes Suprastructure: A Novel Approach to Hearing Reconstruction

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Aim To present a newly devised method of designing conchal cartilage caps for stapes suprastructure applied for ossicular chain reconstruction in mastoid surgery and report the hearing results.

Materials and Methods We designed conchal cartilage caps (CCCs) to be fitted on stapes suprastructure for ossiculoplasty in cases of mastoid surgery and investigated the hearing outcome by comparing the pre- and postoperative air-bone gap (ABG) in patients who had undergone this surgery.