12 (30.7%) had hypoactive labyrinth (bilateral or unilateral) and one (0.03%) had hyperactive labyrinth (bilateral or unilateral). Two children (0.05%) had abnormal subjective visual vertical. Among the various diagnoses made, the four main pathology found in our study were vestibular migraine in 17 (43.5%), vasovagal syncope in six (15.4%), otolithic dysfunction in three (7.7%), and posttraumatic concussion in three (7.7%) patients.

Conclusion In our study, we have found that the prevalence of pediatric giddiness to be 0.007% and the most common diagnosis made was vestibular migraine. It is quite feasible and essential to evaluate children with vertigo and dizziness systematically to make a relevant clinical diagnosis, which helps in the proper management of these patients and also allay anxiety in parents.

A0011: Microsurgical Anatomy of Stapedius Muscle: Anatomy Revisited, Redefined with Potential Impact in Surgeries

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Stapedius muscle, even though being the smallest skeletal muscle in human body, has a major role in otology. As many of the distinguished books in otology missed to explain much about stapedius muscle, and also considering the need for the anatomy-based visit to this small muscle, we felt it was important to have an exercise like this. In the dissection hall of our institution, we dissected 32 cadaveric temporal bones and delineated stapedius muscle as a part of PG teaching program to have a clear idea of the anatomy of the stapedius muscle, its origin, attachment, extension, and size (all dimensions). Length of the stapedius muscle varied between 9 and 11 mm, stapedius tendon measured approximately 2 mm. The muscle had a classical sickle shape with tendon looking like a handle of the sickle. It has a bulky belly with a maximum breadth of 1 to 3 mm. Why to have a clear idea about the anatomy of the stapedius muscle is that, unless the anatomy is clear, there is chance of confusing the muscle with facial nerve while doing facial nerve grafting and also while drilling for facial nerve decompression, even in experienced hands who may get confused and decompress the muscle. Stapedius muscle is said to be the smallest in the body but not as small as its been described. Detailed awareness of the anatomy of stapedius muscle is needed so as to avoid confusion while facial nerve grafting and while drilling.

A0012: Simultaneous Labyrinthectomy and Cochlear Implantation

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Introduction Reports indicate that the cochlea remains responsive to electrical stimulation following labyrinthectomy. Post-stapedotomy surgery complications like persistent vertigo and sensorineural hearing loss are debilitating. This case describes the management of a patient by simultaneous labyrinthectomy and cochlear implantation following complications of stapedotomy.

Case Presentation A 37-year-old male teacher who had undergone stapedotomy 1 month ago at a local hospital, presented with complaints of right ear hearing loss and vertigo. Examination revealed a right-sided posterior marginal perforation and dislocated stapes piston with clear fluid seen filling the middle ear. Pure tone audiogram showed a right ear moderate to severe mixed hearing loss and a left moderate mixed hearing loss. A high-resolution computerized tomogram (HRCT) of the temporal bone was normal. Right revision stapedotomy, closure of perilymph leak and myringoplasty were done. Patient improved symptomatically with improvement of hearing and relief from vertigo. However, 3 months later patient developed viral labyrinthitis with severe vertigo and right-sided severe profound hearing loss. He was treated conservatively with IV antibiotics. Patient continued to have intractable vertigo and hearing loss. The patient subsequently underwent right simultaneous labyrinthectomy and cochlear implantation 7 months after the second surgery. Postoperatively, the patient had dramatic relief from vertigo and was able to resume to his daily routine activities.

Discussion and Conclusion Simultaneous labyrinthectomy and cochlear implantation following complications of stapedotomy offers successful treatment and is yet another indication for cochlear implantation.

A0013: Outcomes of Endoscopic Stapedotomy

Khageswar Rout

Traditional surgery for otosclerosis is performed by microscopic approach. However, in recent years, endoscopic instrumentation, techniques and knowledge have greatly improved and, in our opinion, endoscopic stapedotomy will gain increasing importance in otology in future. It is a newer prospective. The aim of this presentation is to highlight importance of endoscope over microscope, particularly the panoramic view of entire foot area, both anterior crus and posterior crus visualization, and the results associated with endoscopic technique. We conducted a study on endoscopic stapedotomy between June 2016 and May 2018 in which we operated 16 cases. Preoperative surgical findings, complications, and duration of surgery, and air bone gap improvements were analyzed. Postoperative results were very good at par with microscopic technique.

A0014: A New Method of Cadaver Dissection in the Temporal Bone

M. Kumaresan, Navin Bharath

Aim Illustration of an easy method of entering into the middle ear and proceed further to the brain in a cadaver.

Methods Learning the live anatomy is essential for any surgery before it is undertaken by a surgeon. It can be undertaken in human cadaver or sheep cadaver. We dissected out the temporal mandibular joint as a first-step study. The external auditory canal, the whole length and breadth can be studied easily after removal of the thin bone between external auditory canal and temporal mandibular joint.

Second step: The layers of the tympanic membrane can be dissected and seen.
Third step: Content of the middle ear studied after elevating the tympanic membrane.
Fourth step: Cochlear dissection and internal auditory canal dissection.
Fifth step: Skull-based dissection.

Clinical significance Same steps can be followed in operative procedure also, provided keeping in mind the facial nerve anatomy.

Result In cadaver dissection, this is the easiest procedure other than the conventional post auricular dissection which needs drilling of the mastoid.

A0015: End to Mastoid Cavity Problems

Paramita Saha

Aim Aim of cholesteatoma surgery is to obtain a safe, dry, and self-cleaning ear. Several methods have been tried and tested to achieve this goal with varying degrees of success.

Materials and Methods Study of 70 case series over the 4-year time has been made using different methods and materials to obliterate and reconstruct the mastoid cavity and the results compared.

Results Current trends appear to favor a combination of mastoid obliteration and reconstructive techniques with biologic materials, such as muscle flaps and bone chips, preferred over nonbiologic materials, such as hydroxyapatite crystals and ceramic. However, there is a large variation among the type of biologic flap used which can vary between fascia, muscle, and periosteum. After an extensive review, there is no ideal method for mastoid obliteration and reconstruction, as most methods appear to have a certain degree of success.

Conclusion The basic principles of a low facial ridge, large meatoplasty and an oval mastoid cavity should be adhered to, and the surgeon should choose a method that he or she is comfortable with.

A0016: To Evaluate the Postoperative Outcomes of the Endoscopic StepsQ5 surgery Performed in a Single Tertiary Care Center

Pradeep Pradhan

Objective To evaluate the postoperative outcomes of the endoscopic stapes surgery performed in a single tertiary care center.

Materials and Methods Retrospective case series contained 32 ears of stapedial otosclerosis, conducted in the department of ENT and Head–Neck Surgery, AIIMS, Bhubaneswar, from May 2016 to December 1017. All the patients had undergone endoscopic stapes surgery for otosclerosis using the standard endoscopic approach. Lobular fat had been utilized for plugging of the stapedotomy hole in all the cases. Anatomical functional outcomes were analyzed after 1, 4, and 6 weeks in the postoperative period.

Results Twenty-six patients were included (90% women) with a median age of 32.6 years (range, 23–49 years). The median follow-up was 5.3 months (range, 3–12 months). The chorda tympani nerve was sacrificed in 8.4% cases. Postoperative disequilibrium was detected in 7.0% cases and 100% resolution at first follow-up. The median air-bone gap (ABG) improved from 30.3 dB preoperatively to 9.35 dB postoperatively at last follow-up ($p < 0.0001$). The ABG closed to less than 15dB in 89.3% of patients and less than 10 dB in 79%. There were no instances of postoperative sensorineural hearing loss (defined as > 15 dB change from baseline) or facial nerve injury. Postoperatively, 29.6% of patients reported dysgeusia, of which 8.3% were persistent at last follow-up.

Conclusion Endoscopic stapedotomy is an effective technique to manage stapes fixation resulting in a median postoperative ABG of 9.35 dB and ABG closure to within 10dB in 79% of patients. Autologous lobular fat can be effectively used in controlling the disequilibrium in the immediate postoperative period.

A0017: Postoperative Outcome of Elective Mastoid Surgery: Pediatric versus Adult Patients

Prem Sagar, Shilpi Budhiraja, Rajeev Kumar, S. C. Sharma

Aim Analysis of postoperative outcome in elective mastoid surgeries in pediatric versus adult patients in terms of safe and dry ear, hearing restoration, cavity problems, and quality of life.

Materials and Methods In this cross-sectional study, all patients who underwent elective mastoid (primary and revision) surgery between 2011 and 2016 in a tertiary care hospital were recruited.

Results Forty-one pediatric and 59 adult postmastoidectomy patients were recruited. The mean duration of follow-up from the date of surgeries was 20 months in pediatric and 40 months in adult patients. 92.7% of pediatric and 96.6% of adult patients had safe ear at the time of evaluation. Seventy-three percent of pediatric and 80% of adult patients had dry ear and presence of granulation tissue was the most common cause for otorrhea in both the groups. Hearing improved by a mean of 16 dB in 63% of 27 pediatric patients and by 14 dB in 43% of 42 adult patients who underwent same stage tympanoplasty. Pediatric patients had a statistically significant better hearing outcome with major columella tympanoplasty as compared with adult patients. Also, 19.5% of pediatric and 40% of adult patients complained of tinnitus.

Conclusion Majority of pediatric patients with poor quality of life had otorrhea as compared with hearing impairment in adults. The incidence of high-facial ridge and sump effect was higher in pediatric patients. Pediatric patients had a better hearing outcome with major columella tympanoplasty than adult patients.

Clinical Significance Apart from complete disease clearance and tympanoplasty, adequate lowering of facial ridge, reducing the mastoid cavity size, and ensuring complete epithelialization of cavity in the postoperative period will improve the quality of life in pediatric patients undergoing mastoidectomy.