

**Results** Patients who have undergone conchal cartilage cap ossiculoplasty for stapes suprastructure showed good hearing improvement. Postoperative follow-up of ABG for a period of 1 year in 23 patients demonstrated significant audiometrical improvement. There were no ABG of more than 30 dB and mean ABG of 20 dB was achieved for most of the cases.

**Conclusion** The technique of conchal cartilage cap for stapes suprastructure ossiculoplasty is a safe, simple, reliable, and effective procedure with an easy learning curve. Hearing results are satisfactory and comparable to other commonly applied techniques and materials. Compared with synthetic prostheses, conchal cartilage ossiculoplasty also offers better biocompatibility at no additional expenditure.

**Clinical Significance** Development of an undemanding, consistent and easily performed technique of ossiculoplasty using autologous cartilage at no extra cost provides another option in the armamentarium of an otologist for good hearing outcomes in mastoid surgery.

#### **A0022: Cochlear Implants in Auditory Neuropathy Spectrum Disorder: Role of Electrically Evoked Auditory Brainstem Responses and Serial Neural Response Telemetry**

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**Objective** To evaluate the utility of neural response telemetry (NRT) and electrically evoked auditory brainstem response (EABR) in patients with auditory neuropathy spectrum disorder (ANSD)

**Methods** Four patients with ANSD who underwent cochlear implantation and usage for more than 1 year were studied. All the four patients underwent preoperative trans tympanic EABR (TT-EABR), intraoperative neural response telemetry (NRT), postoperative NRT at 3 months, 6 months, and 1-year intervals after switch-on and outpatient CI (cochlear implant) EABR testing at 1-year post switch-on.

**Results and Discussion** The authors propose a new practical classification of understanding the neural responses in relation to TT-EABR wave-form morphology and latencies. NRT and/or EABR measurements showed improvements in all the four patients. Three out of the four patients had NRTs on three or more electrodes and all the four patients had EABRs at 1 year of implant use. In addition, it was apparent that the children with better wave-form morphology on TTEABR preoperatively had better category of auditory performance (CAP) and speech intelligibility ratings (SIRs) scores at 1 year of implant use.

**Conclusions** Improvements in EABR and NRT over time with CI use indicates that electrical stimulation is a favorable scheme of auditory stimulation in ANSD patients. This also provides an objective way to monitor changes/progress in the auditory pathways after cochlear implantation.

#### **A0023: Diagnosis and Treatment of Menière's Disease: Our Experience**

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**Introduction** Menière's disease is a clinical syndrome that consists of episodes of spontaneous incapacitating vertigo usually associated with unilateral fluctuating sensorineural hearing loss (SNHL), tinnitus, and aural fullness. Diagnosis is by clinically and audiovestibular tests including video nystagmography (VNG).

**Aim (1)** This study was done to determine whether video nystagmography is a valid diagnostic tool for diagnosing Menière's disease.

**(2)** To study the therapeutical effect of betahistine in Menière's disease and compare with video nystagmography.

**Methodology** Patients, presenting with vertigo, tinnitus, and fluctuating hearing loss, who come under the criteria for Menière's disease in the ENT OPD were selected. A detailed history and thorough clinical examination were done followed by PTA and video nystagmography. Those who are diagnosed with Menière's disease were treated with betahistine 48 mg for 2 weeks, and were followed-up for 2 and 6 weeks.

**Results** Thirty-five patients have been studied, all of them showed nystagmus toward the affected ear on post high-frequency head shake, hypofunction on caloric test in affected side. Twenty patients were correlated with glycerol test and PTA showing SNHL on affected side. On follow-up, 15 patients showed improvement clinically and in VNG. These tests were done on follow-up at 2 and 6 weeks to look for improvement.

**Conclusion** VNG is an excellent tool for diagnosing Menière's disease and to compare the therapeutical improvement or efficacy of treatment given.

**Clinical Significance** Menière's disease can be easily diagnosed in OPD setup with VNG, it helps in accurate and early treatment of the patient.

#### **A0024: Comparative Study of Palisade Cartilage Tympanoplasty with Temporalis Fascia Tympanoplasty in CSOM with Subtotal Perforations**

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**Objective** To assess and compare the graft acceptance rates and audiological outcomes of palisade cartilage tympanoplasty with those of temporalis fascia tympanoplasty in CSOM with subtotal perforation.

**Materials and Methods** A prospective study containing 50 patients with the diagnosis of CSOM with subtotal perforations attending the department of ENT, K. R. Hospital between January 2017 and December 2017. Patients were divided into two groups with equal number of patients in

each group. Detailed history and clinical examination along with PTA (pure tone audiometry) were performed. Pre- and postoperative graft success results and hearing improvement results were assessed and compared.

**Results** Significant hearing improvement was seen in both types of surgeries. Graft success rates and hearing results were slightly better in temporalis fascia tympanoplasty than cartilage tympanoplasty. But the difference was not statistically significant.

**Conclusion** Tympanoplasty is the surgical procedure done for the management of CSOM with subtotal perforation. Both temporalis fascia and cartilage are excellent graft materials for closure of perforations and hearing improvement. But there was no statistically significant difference in surgical success rate and hearing gain between the two groups.

#### **A0025: Otomycosis: Study of Etiopathological Factors and Mycological Spectrum**

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**Aim** Otomycosis, study of etiopathological factors and mycological spectrum.

#### **Objectives**

1. To study various etiological factors.
2. To study the mycological spectrum.

**Materials and Methods** Source of data study was undertaken at the Department of Otorhinolaryngology, Sri Siddhartha Medical College and Hospital, Tumkur, from June 2017 to June 2018. It was a time-bound study, wherein 51 cases were studied. **Method of Data Collection** Informed consent was taken, detailed clinical history was recorded, and clinical findings were noted. Otomycotic debris was subjected to mycological spectrum by KOH, and direct inoculation into *Sabouraud* dextrose agar. One swab for wet mount preparation in 10% KOH solution. The second swab was directly inoculated into *Sabouraud* dextrose agar medium.

**Results** Out of 51 patients, 47 reported positive fungal isolates. This constituted 92.1% cases, which were taken up for study. The study showed higher incidence of otomycosis in females (53.2%) than in males (46.8%). In this study, otomycosis was found to be unilateral in 44 cases (93.6%) and bilateral in three cases (6.4%). In this study, most common predisposing factor was use of unsterile material for cleaning the ear (buds, match sticks, hair pins, pencils, etc.) in 55.3% of cases, followed by use of ear drops (antibiotic and steroids) in 51.1% cases, water entering the ear canal in 42.5% of cases, use of head cloth in 21.3% of cases, and previous ear surgery in 8.5% of cases.

**Conclusion** In conclusion, otomycosis/mycotic otitis externa is still a common problem and is often misdiagnosed for other chronic otitis conditions. Age does not act as a barrier or gender does not give immunity to this disease and it is usually a unilateral disorder. Cleaning of external auditory canal with unsterile material and use of topical antibiotic/

steroid ear drops were commonest predisposing factors. The fungi isolated were *Aspergilli* and *Candida*.

#### **A0026: Bilateral Congenital Absence of Stapes Superstructure, Rare Ossicular Anomaly Managed Endoscopically**

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**Introduction** The congenital anomalies of ossicular chain of the middle ear are an uncommon event that can present in a variety of ways. Among these malformations, the congenital absence of stapes (CAS) is a very rare condition that is seldom described in the English scientific literature. It was first reported by Mcaskile and Sullivan in 1955 in two patients with conductive hearing loss.

**Case Presentation** A 19-year-old male patient presented with complaints of bilateral hard of hearing since childhood, nonprogressive type. Family history was negative for any otologic or genetic problem. The audiogram showed bilateral conductive hearing loss with an average air-bone gap of 60 dB on both sides. CT temporal bone revealed the absence of stapes superstructure bilaterally, and an abnormal facial nerve location. Endoscopic exploratory tympanotomy and ossicular reconstruction were done on right side first, in the year 2017, and on left side in the year 2018 (June).

**Discussion** The CAS is obviously a rare entity with only 12 cases reported in the literature. In all cases, CAS present as a conductive hearing loss with normal external auditory canal and intact tympanic membrane. The exact etiology is still not known and it has been suggested that malformation or agenesis of the stapes and oval window is related to the abnormal development of the facial nerve. Various managements have been described through time. This includes a broad range of options from exploratory surgery and reconstruction prosthesis to amplification.

**Conclusion** Among all possible middle ear anomalies, stapes agenesis is rarely a part of the differential diagnosis for conductive hearing loss. Only 12 cases have been published in the English scientific literature (1955–2017). No cases have been published in India, till date. More than half of the patients with CAS have an abnormal facial nerve, which may complicate surgery. This patient has an anteroinferior displacement of facial nerve canal but we have done bilateral endoscopic reconstruction surgery successfully without any injury to facial nerve.

#### **A0027: Malignant Otitis Externa: A Risky Business** Anu Jacob

**Introduction** Malignant otitis externa or necrotizing otitis externa or skull base osteomyelitis is an invasive infection in the external auditory canal and skull base where the patient presents with excessive purulent ear discharge associated with severe ear pain with or without cranial nerve involvement. The most common cranial nerve to be involved is the facial nerve.