

bacteria were observed in 71 patients (45.5%) of preoperative culture, in 21 patients (13.5%) of intraoperative culture, and in 7 patients (4.5%) of postoperative culture. Methicillin-resistant staphylococcus (MRSA) was identified most commonly in all of tests, and it was identified from 23 of 71 cases (32.4%), 11 of 21 cases (52.4%), and 5 of 7 cases (71.4%), respectively, and the percentage of MRSA was increased from the intraoperative to postoperative identification tests. In 23 cases of MRSA in preoperative tests, 6 cases showed MRSA also in intraoperative tests, and 3 cases showed MRSA in postoperative tests. Conclusions: The distribution of strains in middle ear was changed through COM surgery, and the percentage of resistant strains, in particular, MRSA was increased. But, the bacterial culture results of post-operative otorrhea showed lower agreement with that of pre-operative or postoperative culture, and the re-identification of strains is needed.

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cVEMP testing in trans-mastoid occlusion surgery for superior semicircular canal dehiscence

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Learning Objectives:

Introduction: Semicircular canal dehiscence syndrome (SCDS) is caused by a bony defect of the superior semicircular canal, resulting in autophony, bone conduction of bodily sounds and pseudo conductive hearing loss. Vestibular manifestations include sound- or pressure-evoked vertigo. cVEMP (cervical vestibular evoked myogenic potential) testing is used as the diagnostic gold standard in addition to CT scanning. The aim was determine the pre and post-operative cVEMP changes in patients undergoing transmastoid occlusion surgery for SCDS.

Methods: All patients suggestive of SCDS underwent CT scanning and cVEMP testing. All those with positive findings for both (dehiscent superior canal and asymmetrical cVEMP thresholds >35%) then underwent surgery. cVEMP thresholds were measured 3 months post-operatively in a standardised manner. Asymmetry between ears was assessed by means of the Jonkees formula and diagnostic of SCDS when greater than 35%. Data was identified and collated retrospectively.

Results: Twenty patients, with 22 affected ears underwent surgical occlusion with pre-operative and post-operative cVEMP testing. All patients with unilateral SCDS had asymmetrical cVEMP thresholds >35% with a mean of 164% (N = 14, SD 224). In the 17 ears with recordable cVEMPS, all demonstrated normalisation of thresholds except in one, who had persistent symptoms and BPPV. In 10 out of 12 unilaterally affected patients, the postoperative cVEMP threshold was less than or equal to the contralateral

ear. In two patients there were no recordable thresholds in the contralateral ear.

Conclusion: cVEMP testing continues to be a valuable assessment tool in patients with symptoms suggestive of SCDS. Our results show that with the transmastoid occlusion technique, the post-operative cVEMPs return to normal (as compared with their contralateral side) in the majority of cases.

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The recovery of middle ear and mastoid cavity using T-tube in adhesive otitis media

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Learning Objectives:

The repeated dysfunction of Eustachian tube repeatedly may occur acute, chronic serous otitis media that can exacerbate the tympanic membrane status as adhesive otitis media, which is a result of chronic inflammation of middle ear and mastoid cavity. It may occur erosion of ossicles, which can make conductive hearing loss or cholesteatomatous otitis media while in progress. We have experienced not only recovery of middle ear, mastoid aeration, but also recovery of hearing through using only ventilation T-tube for long period. The patients were 10-year-old female, 30-year-old female and 20-year old male who visited outpatients because of otorrhea and hearing disturbance. The T-tube were inserted at operating room under general or local anesthesia. The difference of air-bone gap between preoperative and postoperative hearing were 45 dB, 18 dB and 17 dB each, and each period of tubing were 53 months, 40 months and 26 months. All patients performed temporal bone computer tomography (CT) before surgery, and all of them showed soft tissue density in middle ear and mastoid cavity, and sclerotic mastoid bone changes. However all patients showed improvement of temporal CT finding without soft tissue density in middle ear and mastoid cavity postoperatively. We propose this treatment because it may be simple and have cost-benefit compared with other methods. However close observation of tympanic membrane perforation and recurrent otorrhea after tube insertion might be necessary.

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Clinical and Audiological Characteristics of 1000 Hz Audiometric Notch Patients

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Learning Objectives:

Purpose: There are specific frequency hearing losses such as c4-dip(2kHz loss) in otosclerosis and c5-dip(4kHz loss) in case of noise induced hearing loss. The c3-dip(1kHz loss), however, is seldom mentioned in clinical field. We found a group of patient with 1 kHz hearing loss fortuitously and report it with review of literature.

Method: Tertiary academic referral center-based retrospective chart review and review of audiogram was done. Otologic history, audiogram, diagnosis, occupation, history of noise exposure were reviewed with chart and telephone interview. We compared the c3-dip group with 98 patients of c5-dip group(4kHz hearing loss group).

Results: Thirty one patients met the criteria of 1kHz audiometric notch. There are eleven males and 20 female with mean age of 40.6 years old. The pure tone threshold of 1kHz was 37.97 dB and the hearing threshold was 22.38 dB with other frequencies. Tinnitus was most the common complaints of c3-dip group compared with c5-dip group. The most common diagnoses of the c3-dip group were sudden sensorineural hearing loss(n = 8) and idiopathic tinnitus(n = 8). Female patients and unilateral cases were more common in c3-dip group than c5-dip group. Ear fullness was the more common symptom in c3-dip group than c5-dip group. The duration of occupation-related noise exposure was longer in c5-dip group than c3-dip group. The history of head or ear trauma was more frequent in c3-dip group than c5-dip group.

Conclusion: We defined a new clinical entity of 1 kHz hearing loss group as c3-dip group.

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Perilymph Gush during the Stapedotomy for a Suspicious Osteogenesis Imperfecta Conductive Hearing Loss

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Learning Objectives:

A 38-year-old woman visited our clinic with her left progressive hearing loss for 2 months. She had characteristic blue sclera and experienced frequent fractures from minor trauma in her teens. She looked normal in her appearance and stature. She did not have family history of hearing loss. Her ear drum was clear and pure tone audiogram showed left side 40 dB air-bone gap conductive hearing loss. Her right hearing was normal. Temporal bone CT revealed nothing special. Exploratory tympanotomy was performed to find stapes fixation and decided to do the stapedotomy. However, profuse perilymph gush developed when

perforating the foot plate. Piston wire prosthesis was placed with struggling effort. Lumbar drain was placed right after finishing the operation. Although she had immediate post-operative dizziness, hearing loss, and tinnitus for 3 days, her hearing gradually improved and air-bone gap was closed 2 months after the surgery. Her good hearing was maintained for the 6 months on the follow-up audiogram.

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Operative Management of External Auditory Canal Cholesteatoma

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Learning Objectives:

We present our experience of Ten cases of EAC cholesteatoma treated in a UK district general hospital (serving a population of approximately 275,000) between 2007 and 2014. We discuss the clinical presentation, appropriate investigation, and subsequent surgical management of these cases. Cholesteatoma of the external auditory canal is rare, but has potential for serious complications such as erosion into the temporo-mandibular joint, facial nerve, and skull base. The most common presenting symptoms were unilateral otorrhoea and otalgia. Clinical findings included erosion of the inferior aspect of the bony canal wall, with accumulated keratin and bony sequestrum. Computed Tomography confirmed the presence of bony canal wall erosion, with an overlying soft-tissue attenuation mass in most cases. The middle ear was normal in most of cases. Examination under anaesthesia and biopsy of the EAC lesion was used to differentiate between EAC cholesteatoma, necrotising otitis externa, and squamous cell carcinoma of the EAC skin. Histological analysis of biopsy specimens showed keratin, with no evidence of malignancy. In each case, the disease was at a relatively advanced stage with erosion of the petrous temporal bone. Bony canal-meatoplasty was done via a post-auricular approach. The cholesteatoma was excised, and the resulting cavity was filled with grafted tragal cartilage and perichondrium or temporalis fascia to achieve a smooth, self-cleaning ear canal.

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Is There Hearing Loss In Sjogren's Syndrome? A Cohort Matched Cross-sectional Observational study

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