

All but one patient grew intact keratinising epithelium lining their ear canal and tympanic membrane. Healing was initially prolonged, so a pericranial flap was incorporated into the technique.

All but one patient reported a dry ear at one year.

The small number of revision operations allowed us to confirm that the bone grafts had become fully incorporated into the temporal bone.

Conclusions: Reconstruction of the posterior ear canal using a cortical bone is an effective procedure for treating mastoid cavities which are unstable and symptomatic.

Learning Points: Cortical bone becomes vitalised and incorporated into the skull and so has the potential to be exceptionally robust in the long term.

doi:10.1017/S0022215116005454

ID: IP049

A pilot study to investigate the therapeutic effect of Valsalva maneuver on otitis media with effusion in adults

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Objectives: This pilot study was performed to investigate the therapeutic effect of Valsalva maneuver on otitis media in adults and to evaluate the prognostic factors for the good response.

Materials and methods: Thirty nine ears of 32 adult patients who were diagnosed as otitis media with effusion and managed by one-week Valsalva maneuver (>30/day) without any other medication were included in this study. Its therapeutic efficacy was evaluated and the prognostic factors which predict the response of Valsalva maneuver were analyzed by comparing various clinical and audiologic factors between success and failure groups.

Results: Mean duration of otitis media in the study subjects was 30.9 days (SD 31.6 days). Success rate of 1-week Valsalva maneuver as a single therapeutic modality was up to 64.1% (25/39 ears) and hearing were significantly recovered in success group. No recurrence or side effects were observed. Successful Valsalva maneuver checked and confirmed as bulging of tympanic membrane by otoendoscopic examination was an excellent indicator for therapeutic response in a week. ($p < 0.05$) Age, sex, duration of otitis media, history of previous upper respiratory tract infection, initial hearing levels and type of audiogram were not significant prognostic factors for therapeutic efficacy of Valsalva maneuver. *Conclusion:* One-week Valsalva maneuver

seems to be considered as a first line therapeutic modality in otitis media with effusion in adult patients who demonstrate the successful maneuver result on oto-endoscopic examination.

doi:10.1017/S0022215116005466

ID: IP050

Temporal bone HRCT features of the congenital middle ear cholesteatoma

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Learning Objectives:

Objective: To find out the features of the temporal bone high resolution computer tomography (HRCT) of the congenital cholesteatoma of middle ear.

Method: The HRCT image of 29 patients (30 ears) of congenital middle ear cholesteatoma were reviewed retrospectively and the location of the lesion, the type of mass, the erosion of the ossicular chain and other malformation of the middle ear were Investigated. All of the cases were confirmed by operation and pathology.

Result: Of these 29 patients (30 ears) with congenital middle ear cholesteatoma, the cholesteatoma localized to the tympanic cavity in 18 patients while the mastoid cavity was involved together with the tympanum in 12 ears. According to the shape of the mass, 21 cases were classified as open type while the other 9 cases were close type. The ossicles were affected in all of these patients. Erosion of the long process of the incus combined with super structure of the stapes, which was detected in 29 ears, was most common.

Congenital malformation of ossicular chain was found accompanied with the cholesteatoma in 3 cases. In addition, abnormal hyperosteogeny was seen in 2 cases. The facial nerve canal erosion was identified in 3 cases and the semicircular canal fistula was found only in 1 patient.

Conclusion: Temporal bone HRCT was very helpful for the early diagnosis of the congenital middle ear cholesteatoma. The open type cholesteatoma were much more common than the close type in our clinic. Other malformation of the middle ear sometimes could be found with the congenital middle ear cholesteatoma together.

doi:10.1017/S0022215116005478

ID: IP051

Miringoplasty and Tympanoplasty without Mastoidectomy

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Learning Objectives:

Introduction: In active Chronic Ear Disease (CED) and sequelae of CED without Cholesteatoma we perform Miringoplasties and Tympanoplasties without Mastoidectomy to reconstruct the sound transmission mechanism.

In this course we describe our surgical approaches and the materials that we use for the reconstruction of the ossicular chain. We tend to favor the use of autologous grafts whenever possible such as temporalis muscle fascia, tragal cartilage and remodeled incus. In some cases we also use titanium TORP and otologic cement depending on the existing viable remnants.

Material and method: For the purpose of this course we have revised 50 cases that had undergone Miringoplasties or Tympanoplasties. In the 50 cases we describe the procedure used to reconstruct the tympanic membrane and the ossicular chain depending on the pathology found in each case.

Results:

1. - The most frequent approach has been retroauricular (85%).
2. - In 50% of the cases the tympanic membrane was grafted with fascia (50%). In the remaining 50% the membrane was grafted with tragal perichondrium or periosteum obtained from the mastoid.
3. - The graft was positioned in two pieces and overlaid to the despithealized tympanic remnants leaving the malleus handle between the two grafts (Double Overlay Graft, DOG).
4. - The results showed that in 94% of the cases the tympanic membrane remained closed 3 years after surgery.
5. - There was a significant hearing improvement in 80% of the cases. In those cases the residual air bone gap was less than 20 dB.

Conclusions: Miringoplasties and Tympanoplasties without Mastoidectomy have excellent results in the majority of cases. Both grafts take and hearing improvement is frequent enough as to recommend surgery as the best treatment choice. The adequate selection of cases for surgery, some technical aspects and thorough follow up of the patient are considered critical to obtain good and long lasting results.

doi:10.1017/S002221511600548X

ID: IP052

Cholesteatoma accompanied abnormal ossification; Report of two cases

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Learning Objectives: Case study.

It is well known the cholesteatoma causes bone erosion and destruction of ossicular chain. We experienced two cases of cholesteatoma accompanied by abnormal ossification around ossicles which showed fixation to the wall of antrum or bony wall of middle cranial fossa. Case 1 is a 39-year-old man. He visited our hospital complained hearing loss of his left ear about one year ago. He also complained otorrhea of left side six months ago, cured spontaneously. 10 years ago he had visited our hospital for his right ear surgery, then an otomicroscopic examination of his left ear showed only dry small retraction pocket. But this time the retraction pocket of his left ear had been enlarged. Computed tomography scanning (CT) revealed deformity of ossicles. An operation of his left ear was performed. Abnormal ossification was seen around malleus head and Incus body and fixed the wall of antrum. Isolated cholesteatoma was existed behind the malleus head. Case 2 is a 45-years-old woman. At the age of 23, her left ear had been operated for cholesteatoma in our hospital. 8 years later she visited our hospital for his right otalgia. An otomicroscopic examination of her right ear revealed the retraction pocket with large squamous debris. By conservative treatment her otalgia was cured and the retraction pocket was cleaned. CT revealed only small soft tissue in attic. At this time the age of 45, the debris of the retraction pocket couldn't be removed for pain. CT revealed large soft mass with defect of bony wall of middle cranial fossa. An operation of her left ear was performed. Ossicles fixed wall of antrum and isolated cholesteatoma by the abnormal ossification was found. It will be necessary to take into consideration of the existence of isolated cholesteatoma by abnormal ossification.

doi:10.1017/S0022215116005491

ID: IP053

Simultaneous cochlear implantation and labyrinthectomy for advanced Ménière's disease

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Learning objectives:

1. Understand the challenges in managing intractable vertigo in Ménière's disease.
2. Review the literature on cochlear implantation outcomes in Ménière's disease.
3. Learn about simultaneous labyrinthectomy and cochlear implantation as an emerging technique in the management of Ménière's patients with intractable vertigo.

Introduction: Patients with Ménière's disease can develop unaidable sensorineural hearing loss. Cochlear implantation