

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.

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### 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.

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### 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.

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### Miringoplasty and Tympanoplasty without Mastoidectomy