

FGF) as a regulatory factor to the newly opened mastoid cavity and assessed whether these promote regeneration of MACs or not.

**Material and Method:** In this study, 10 cases with severe chronic otitis media (n = 3), cholesteatoma (n = 5), and adhesive otitis media (n = 2) were selected. At the 1<sup>st</sup> stage of operation, before mastoidectomy, cortex bone lid was harvested. Harvested autologous bone fragments with gelatin sponge soaked in b-FGF were implanted into the newly opened mastoid cavity and they were fixed by fibrin glue. Cortex bone lid was returned to the original position and was fixed by autologous bone pate.

By the images of high resolution computed tomography (HRCT), whether MACs were regenerated or not were estimated. The Eustachian tube function were measured before and 9 to 12 months after the 1st stage operation.

**Results:** Regeneration of MACs was observed 7 out of 10 cases (70%). In 6 out of 7 cases (86%) in the successful cases of regeneration of MACs in both group, Eustachian tube functions were improved. On the other hand, in the failure cases of regeneration of MACs, Eustachian tube functions were not improved.

**Conclusions:** Implanted autologous bone fragments and gelatin sponge soaked in b-FGF to the newly opened mastoid cavity contribute to regeneration of MACs in both HRCT images and gas exchange function.

doi:10.1017/S0022215116004217

### Free Papers (F833)

**ID: 833.1**

#### Transcochlear approach for temporal bone cholesteatoma with facial weakness

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*Learning Objectives:*

**Objective:** To evaluate the application of transcochlear approach for temporal bone cholesteatoma with facial weakness.

**Methods:** We reviewed our institutional experience in the management of patients with temporal bone cholesteatoma. The surgical approaches and techniques were discussed.

**Results:** 6 temporal bone cholesteatoma patients with facial weakness were reviewed. Transcochlear approach was used for these patients. Immediately post-operative facial function was as the same level as pre-operatively. During follow-up, facial function was recovered in 4 cases and no recurrence was detected by annually MRI scan.

**Conclusion:** adequate explosion is important for total removal of the temporal bone cholesteatoma. recurrence can be avoid with eliminate all the debris and matrix of cholesteatoma. in

case with facial nerve involved, transcochlear approach with facial nerve rerouting can got enough vision of lesion.

**Key words:** temporal bone cholesteatoma, treatment strategy, transcochlear approach

doi:10.1017/S0022215116004229

### Free Papers (F833)

**ID: 833.2**

#### Diagnosis and surgical management of 23 cases of petrous bone cholesteatoma

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*Learning Objectives:*

**Objective:** To report the experience on the diagnosis and treatment of petrous bone cholesteatoma (PBC) in our clinic.

**Methods:** The medical records of 23 patients with PBC who underwent surgery between 2013 and 2015 in our department were retrospectively analyzed with respect to the classification, surgical approach, facial nerve function and its management, auditory function, and recurrence.

**Results:** The median age of these patients was 32 years old. Otorrhea, hearing loss and facial nerve palsy were the most common symptoms. All of these patients presented with hearing loss and 16 patients with facial nerve palsy. 18 cases were supralabyrinthine, 1 was infralabyrinthine-apical, 2 were massive and 2 were apical. Three patients had undergone previous mastoid surgery. The surgical approaches varied according to the classification, and transcochlear approach was chosen for 15 cases (one patients operated with the endoscope assistance), transmastoid approach was chosen for 7 cases, combination of middle cranial fossa and translabyrinth approach was chosen for 1 case. The median follow-up was 14 months. Postoperatively, 17 patients were total deafness. Recurrence of cholesteatoma was found in 2 cases, and revision surgery was performed.

**Conclusion:** The surgical approach should be decided according to the classification, extent of the lesion, hearing level, and facial nerve function. Complete removal of cholesteatoma should be prioritized over the preservation of residual hearing level and facial nerve function.

doi:10.1017/S0022215116004230

### Free Papers (F833)

**ID: 833.3**

#### Where is it safe to leave residual Vestibular Schwannoma during surgery?