of eradicating infection with Pseudomonas aeruginosa. The pacient will be re-evaluated periodically and also it requires long term follow-up using IRM examination.

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## ID: IP190

### Hearing Results of Type III Tympanoplasty

Presenting Author: **Shin-ichi Sato**

Shin-ichi Sato, Takashi Fujiwara, Hisanobu Tamaki, Atsuhiro Yoshida, Takuya Miyazaki, Shinji Kaba, Keisuke Kojima, Yasuharu Haku

*Kurashiki Central Hospital*

*Learning Objectives*: to analyze the prognostic factors in type III tympanoplasty.
Hearing Results of Type III Tympanoplasty.

*Objective*: We report the hearing results of type III tympanoplasty to analyze the prognostic factors in type III tympanoplasty.

*Methods*: Patients who had been performed type III tympanoplasty in our department between October 2004 and February 2015 were retrospectively analyzed. Almost pacients underwent tympanoplasty with postauricular incision and canal wall up procedure.

*Results*: 317 patients underwent type III tympanoplasty in our department. The mean age was 47 years (range, 3 to 82 years). 87.4% of patients had an air-bone gap (ABG) of less than 20 ;dB. The average postoperative ABG is 12.8 dB. Hearing results were successful in 93.4% based on criteria proposed by the Otological Society of Japan. The hearing results of canal wall up Type III tympanoplasty were significantly more favorable than canal wall down. On comparison of columella, ceramic bone showed significantly poorer than autograft.

*Conclusion*: Canal wall up Type III tympanoplasty yields relatively good hearing results.

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## ID: IP191

### Cochlear Implantation in Chronic Otitis Media

Presenting Author: **Clark Bartlett**

David Schramm[1], Clark Bartlett[2], Nader Aldajani[2]

[1]*University of Ottawa,* [2]*Department of Otolaryngology - Head and Neck Surgery, University of Ottawa*

*Learning Objectives*: 1. Understand the necessity of initial management of chronic otitis media prior to cochlear implantation 2. Be aware of the advantages and limitations of simultaneous and staged surgical management of chronic otitis media and cochlear implantation 3. Appreciate the necessity of long-term follow-up of patients with chronic otitis media undergoing cochlear implantation.

*Introduction*: Cochlear implantation in patients with a history of chronic otitis media may present substantial surgical challenges. The purpose of this study was to review the management and surgical outcomes of adults at the University of Ottawa Auditory Implant Program undergoing cochlear implantation who have a history of chronic otitis media.

*Methods*: A retrospective chart review of adults undergoing cochlear implantation since 1992 was performed to identify those patients who had required surgical management of chronic otitis media with or without cholesteatoma prior to implantation. Medical records were reviewed to identify surgical procedures required for chronic otitis media management and ascertain long term outcomes after cochlear implantation.

*Results*: Seven patients (3 male, 4 female) were identified who required surgical management of chronic otitis media prior to cochlear implantation. The mean age at cochlear implantation was 66.4 years (39–80). Five patients required an intact wall mastoidectomy for management of chronic otitis media. Of these, two underwent a tympanoplasty for management of a tympanic membrane perforation and two required placement of a ventilation tube for chronic middle ear effusion. Two patients required mastoid obliteration and blind sac closure of the external auditory canal (subtotal petrosectomy). Cochlear implantation was performed approximately 6 months later. The mean length of follow-up is 3.7 years (11 months – 7 years). All patients derived substantial benefit from their cochlear implant without long-term complications.

*Conclusions*: All patients successfully first underwent surgery for chronic otitis media and subsequent cochlear implantation approximately 6 months later without long-term complications. Although simultaneous surgical management of chronic otitis media and cochlear implantation may be considered in selected cases, staged surgical management is a consistently effective option for this difficult condition.

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## ID: IP192

### Narrow Facial Recess

Presenting Author: **Emel Tahir**

Levent Sennaroglu[1], Emel Tahir[2]

[1]*Hacettepe University School of Medicine,* [2]*Ankara Dışkapı Yıldırım Beyazıt Research and Training Hospital Otolaryngology Department*

*Learning Objectives*: To make otologic surgeons must be familiar with facial recess anatomy on temporal bone CT images. To interpret interpret radiological abnormalities preoperatively to minimize complications during CI surgery. To estimate the width of the facial recess by measuring the distance between the exterbal auditory canal and vertical segment of the facial nerve. To discuss alternative approaches to CI in case of narrow facial recess.

*Introduction*: Cochlear implantation (CI) is typically performed though a mastoidectomy and posterior tympanotomy approach. Successful implantation via this approach depends upon accurate identification of the round window niche (RWN), which can be difficult in patients with limited RWN visibility.

The facial recess (FR) is defined as the mastoid air cells between the chorda tympani nerve and the vertical segment of the facial nerve (FN). If the space between the external auditory canal (EAC) and the FN is more than 2–3 mm, the width of the facial recess can be considered as normal. We present a case with a narrow FR diagnosed on preoperative CT and provide a description of the surgical technique used for CI.

*Case Presentation*: A 50-year-old female with bilateral profound sensorineural hearing loss (SNHL) presented for CI evaluation. CT demonstrated the space between the vertical segment of the FN and EAC in her right ear to be normal whereas in the left ear the space was narrow; the vertical segment of the FN was positioned nearly beneath the EAC.Therefore, the bony part of the EAC (approximately 0.5 cm in diameter) adjacent to the FN was removed while preserving the integrity of the overlying skin. This permitted greater access to the middle ear. The electrode array was placed via RW approach uneventfully through this technique. The defect in the EAC was reconstructed with a cartilage graft obtained from the concha and the EAC skin was returned to its original position.

*Conclusion*: When HRCT images indicate limited RWN visibility, surgeons must be prepared to use alternative procedures rather than the posterior tympanotomy approach alone. Removal of a part the posterior EAC wall can increase RWN exposure instead of further enlargement of the FR. The borders and width of the FR can be estimated by measuring the distance between the EAC and vertical segment of the FN. The optimal surgical method can be chosen intraoperatively by an experienced CI surgeon.

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## ID: IP193

### Congenital cholesteatoma of the mastoid: case report and literature review

Presenting Author: **Elnaz Sepehri**

Elnaz Sepehri, Magnus von Unge

*Västerås hospital, sweden*

*Learning Objectives*: Congenital cholesteatoma located in the posterior portion of the mastoid is very slowly growing and some may be treated conservatively.

*Introduction*: Congenital cholesteatoma of the temporal bone is a relatively rare disease. Most of them occur in the middle ear causing hearing impairment and thereby early detection. Congenital mastoidal cholesteatoma, on the other hand, prevalent in the posterior portion of the mastoid, causes no or few, mostly non-specific symptoms and therefore the diagnosis is delayed. In all previously reported cases eradicating surgery was performed.

We present the so far oldest case of congenital mastoidal cholesteatoma, a 87- year old woman. The process was found incidentally on radiology when admitted for dizziness.

The symptoms, radiological and intraoperative findings, and treatment is discussed in the light of previously reported cases.

*Methods*: We assessed the patient's medical history retrospectively. A conservative approach was applied with clinical follow-ups and radiology to evaluate any progress or new symptoms correlated to the cholesteatoma.

The Pub Med database was used to search for previously reported cases of congenital mastoidal cholesteatoma.

*Results*: There was no aural history and the tympanic membrane as well as audiometry were normal at admission. The initial high resolution CT and MRI with cholesteatoma protocol were conclusive. Large bone destructions were present. A one year follow-up with watchful waiting including aural examination and radiology will be presented. Previously, around 30 cases were reported, all being operated at ages ranging between 7 and 77.

*Conclusions*: This case shows the very slow progress of congenital mastoidal cholesteatoma as it had obviously prevailed during her 87 years of life. The case raises the question should congenital mastoidal cholesteatomas not be treated surgically but instead be handled conservatively, with watchful waiting, in the absence of disabling symptoms?

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## ID: IP194

### Quality of Life After Mastoid Cavity Obliteration: The Blackburn Experience

Presenting Author: **Arpana Shekhar**

Arpana Shekhar, Surya Narayan

*Royal Blackburn Hospital*

*Learning Objectives*:

1. Use of cartilage in MCO and PCR.
2. Effect on QOL of patients after using cartilage for MCO/PCR.

*Introduction*: Otologists have tried indigenous alterations in mastoidectomy technique to improve outcomes of chronically discharging ear(CDE). Currently, the surgical management of CDE entails modified radical mastoidectomy(MRM). However it leaves cavity open & prone for discharge along with problems such as wax formation & giddiness.Literature review suggests that mastoid cavity obliteration(MCO)/ posterior wall reconstruction(PWR) has low complication rates. Various materials such as cartilage,bone cement & soft tissue are commonly used.

*Objective*: Pts with MCO require less cavity care and thus decreased dr dependence. Our study was aimed at finding