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*Learning Objectives:*

A Case Report of Keratosis obturans - often misdiagnosed

*Introduction:* A case report of Keratosis Obturans in a 32 year female patient. The condition is often misdiagnosed and requires careful history taking and clinical examination to diagnose and rule out the disease. It should be differentiated from external auditory canal cholesteatoma, presence of osteonecrosis and focal overlying epithelial loss are the most reliable features favouring the diagnosis of external ear canal cholesteatoma over keratosis obturans

*Materials and Methods:* All the necessary investigations viz. routine Blood investigations, serological profile, imaging studies i.e HRCT Temporal bone both sides along with orthopantomogram to rule out (TM)Temporo-mandibular joint involvement was done, Pure tone Audiometry was done which showed moderate to severe conductive hearing loss on the affected side.

Patient was planned for surgery under GA.

*Result:* While operating large keratotic mass was seen extending superiorly into tegmen, posteriorly into mastoid extending upto tip cells, anteriorly involving TM joint, the entire keratotic mass was removed and bone was drilled, wide canal meatoplasty was done, excised mass was sent for HPR and was confirmed as keratosis obturans, post operative CT scans were done to recheck.

*Conclusion:* Keratosis obturans is a rare disease and often misdiagnosed, proper diagnosis with help of imaging modalities is essential to plan for surgery and eradicate disease.

Trauma and anatomical deformity of TM joint and EAC might be a precipitating factor.

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**ID: IP183**

**A Case of Extensive Cholesteatoma with Bezold's Abscess**

Presenting Author: **Chinnala Sai Chaitanya**

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*Learning Objectives:* A rare case of Extensive cholesteatoma with Bezold's abscess.

*Introduction:* A case of 19 year female patient with complains of continuous foul smelling discharge and swelling behind ear in mastoid region extending to upper neck region came to our OPD. On examination it was diagnosed as attico antral type of COM with Bezold's abscess diagnosis confirmed by CT imaging.

*Materials and Methods:* All the necessary investigations viz. Routine Blood investigations, serological profile, imaging

studies i.e HRCT Face including Temporal bone and neck, Pure tone Audiometry was done which showed severe conductive hearing loss on the affected side. Patient was planned for I and D of abscess further planned for Radical mastoidectomy under GA.

*Result:* Following I & D we saw large amounts pus draining from abscess and erosion of cortical bone with huge extensive cholesteatoma debris, hence planned for mastoidectomy extending the incision further planned for radical mastoidectomy, we saw huge extensive cholesteatoma filled in mastoid cavity with multiple fistulae was noted, steps of radical mastoidectomy followed, adequate post op care was taken.

*Conclusion:* Cholesteatoma has been known to be associated with multiple complications either extracranially or intracranially. Among the extracranial complications, mastoiditis and mastoid abscess are the most common. Bezold's abscess formation with cholesteatoma is a rare occurrence but when present can lead to sinister sequelae if not properly managed. The treatment of cholesteatoma is mainly by surgical exploration namely mastoidectomy. The aim of treatment is to eradicate the diseased mastoid and to prevent subsequent complications. Beside surgical intervention, the patient will also require intensive systemic and topical antibiotic therapy. With proper treatment patient will be rescued from experiencing further life-threatening complications.

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**Use of a thinly sliced cartilage technique in a canal wall up procedures**

Presenting Author: **Kazuya Saito**

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*Learning Objectives:* We have performed canal-wall-down tympanoplasty reconstruction with soft posterior meatal wall for cholesteatoma as a single-stage operation from 1998 to 2009. Although this method designed to prevent a cholesteatoma recurrence, posterior meatal wall often retracts like balloon similar to that of conventional open method operation and it has sometimes caused cavity problems, in long-term follow-up.

As you know, in approximately 80% of an anterior attic bony plate of pars flaccida is closed in cholesteatoma cases. As results ventilation routes from Eustachian tube to epitympanum and mastoid antrum are hard to be formed by the single staged operation.

Therefore, after 2010, we decided to perform thinly sliced cartilage technique in a canal-wall-up procedure with planned staged tympanoplasty in many cases.

Cartilage is used as perichondrium-cartilage island flap, and it includes treatment and prevention of attic retraction, reconstruction of scutum and reconstruction of tympanic membrane. This cartilage is the size enough to reconstruct scutum and an eardrum by one. The island flap is simple to use more than a way using both of a cartilage and a

fascia. Because it's possible to reconstruct superior and posterior wall of EAM by one operative procedure.

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**An analysis of Staging-based Surgical Results in primary acquired cholesteatoma**

Presenting Author: **Masaharu Sakagami**

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*Learning Objectives:* JOS staging system is efficient for understanding the pathogenesis of cholesteatoma. In general, regular follow-up is required for at least 10 years post-operatively to identify the formation of cholesteatoma recurrence.

*Introduction:* Japan Otological Society (JOS) proposed the original staging system for the intra-operative extension of cholesteatoma around the tympano-mastoid cavity at this meeting. In the present study, first we defined the types of cholesteatoma as follows: pars flaccida, pars tensa, congenital and secondary. Using JOS staging system, then we reviewed our cases with primary acquired cholesteatoma recently experienced in Nara Medical University Hospital.

*Patients and methods:* A prospective study of patients with primary acquired cholesteatoma was conducted from January 2011 to September 2014. One hundred and two cases were enrolled and followed-up for a median period of 30 months (range: 12–67 months). We examined the relationship between extension of cholesteatoma according to JOS staging system and surgical results of hearing outcomes and recurrence rates.

*Results and conclusion:* Hearing improvement in all the subjects with pars flaccida cholesteatoma was 60.6 % (n = 71) and that with pars tensa 44.4% (n = 9). Two cases of recurrence were seen in pars flaccida and also two in unclassifiable cases (range: 18–42 months).

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**Effect of Speaking Rate on Recognition of Natural fast Speech by Cochlear Implant Users**

Presenting Author: **Kei Sakamoto**

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*Learning Objectives:*

*Objective:* The advanced technology in cochlear implantation has contributed on improving hearing performance in profound hearing loss patients. However, most CI users (CIs) have difficulties in understanding fast speech. It is thought that the difficulties may be associated to either temporal and/or spectral resolution for CI users (CIs), but uncertainty still remains. In this study, we investigated the differences in sentence recognition between natural fast speech for CIs and normal hearing subjects (NHs). In addition, whether context affects the performance at various speed of speech.

*Methods:* Our subjects comprised 14 CI subjects and 6 age-matched NHs served as control. As for the experimental stimuli, sentence test materials were natural fast speech to ration of normal (350–400 characters /1minute) and two fast speaking rate (525–600 characters /1minute, 700–800 characters /1minute) with two different types of speech materials, contextual and non-contextual. Furthermore determined the relation with the individual factors such as temporal resolution, syllable intelligibility, age and so on. Natural fast speech was produced by one female talker.

*Results and Discussion:* Results showed that contextual and non-contextual speech perception scores for both CIs and NHs were declined in accordance with speech rate increased, and this tendency was more significant in CIs than those for the NHs. The differences in sentence recognition between CI individuals were not significant. We have not identified significant correlation between temporal resolution, syllable intelligibility and age.

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**Two cases of malleus ankylosis**

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*Learning Objectives:* We reveal the appropriate surgical approach for a malleus ankylosis.

*Introduction:* The malleus ankylosis is known as a cause of congenital hearing loss. The limitation of the motion of malleus is due to the attachment of the head of malleus to the wall of epitympanum. In this reported, we presented two cases of malleus ankylosis who underwent the tympanoplasty.

*Case1:* The case was 18-year-old male. He noticed left hearing loss at the age of 4. He had been referred to our department for hearing examinations at the age of