

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

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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

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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

8. Audiometry showed left conductive hearing loss. CT showed the fusion of the head of malleus and the wall of epitympanum in left side. He underwent left type I tympanoplasty, and got an effective hearing level. However, after 6 months, the hearing level in the left ear was the same as pre-operative one. The recurrence of fixation of the malleus head was suspected.

Case2: The case was 9-year-old girl. She had recurrent otitis media at the age of 3. Though her otitis media was improved, she had still left conductive hearing loss. Thus, she had been referred to our department at the age of 6. CT showed the fusion of the head of malleus and the wall of epitympanum in left side. She underwent left type IIIc tympanoplasty, and got an effective hearing level.

Conclusion: It was suggested that type IIIc tympanoplasty is more appropriate approach for a malleus ankylosis than type I tympanoplasty.

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The improvement of the bone hearing thresholds after removing cholesteatoma from the round window: our experience Salii O. V. 1, Verchovtseva L. I. 1, Tarasevich T. N. 2

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Learning Objectives:

Background: 30% of all patients treated in our ENT-department are patients with the pathology of middle ear. Out of all our patients with chronic otitis media 54% have cholesteatoma. Hearing function recovering is considered as impotent as complete cholesteatoma removing.

In some cases of cholesteatoma it was observed that after surgery there is an improvement not only of sound conduction but also of sound perception.

Objective: The investigation of possible reasons of sound perception improvement of patients after removing cholesteatoma with tympanoplasty.

Materials and methods: An assessment of 256 patients hearing results was carried out retrospectively. The patients underwent surgery on account of chronic otitis media with cholesteatoma from 2009 to 2015. Hearing assessment was analyzed by data mean value for 4 frequencies: 500 ;Hz, 1000 ;Hz, 2000 ;Hz, 4000 ;Hz before surgery and 3 and 6 months after surgery. Moreover, air-bone interval, air-conductive thresholds and bone-conductive thresholds were assessed before and after surgery, and the absolute increase of air conduction was measured after surgery.

Carefully recoded surgery protocols were analyzed.

Results and discussion: According to the analysis of data it was found that an improvement of hearing thresholds mean value occurs not only for air conduction but also for bone conduction in 32 % of the cases. All patients were divided in 2 groups: with increasing bone conduction and without increasing bone conduction. Several points in these groups were analyzed.

According to the analysis of surgeries' protocols, in 87% of cases there was sound perception improvement of those patients who had cholesteatoma localized in the round window area and had it completely removed during surgery.

Conclusions: Removing cholesteatoma from the round window region promotes sound perception improvement due to the free movement of the round window membrane that, in its turn, improves the movement of perilymph.

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Sigmoid sinus thrombosis and facial paralysis associated to mastoiditis: A case report

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Learning Objectives: Initial surgical approach (antromastoidectomy) was not appropriate for this case. Right mastoidectomy, broad-spectrum antibiotics and anticoagulants has been the treatment of choice.

Introduction: Otogenic sigmoid sinus thrombosis is a rare complication of mastoiditis. This paper aims to offer clinical manifestation and management of sigmoid sinus thrombosis and facial palsy secondary to mastoiditis.

Methods: A 72-year-old patient known with right antromastoidectomy in other ENT Clinic, was referred to our ENT Department with right-sided otalgia, headache and with right facial paralysis (loss of forehead wrinkles and inability to frown, inability to close the right eye, the corner of the mouth pulls down). Computed tomography with contrast administration indicated parafacial accumulations at right mastoid cells and thrombophlebitis modifications in sigmoid right sinus.

Results: This case demonstrates rare but serious sequel of mastoiditis: sigmoid sinus thrombosis and right facial paralysis. Middle ear secretion culture was positive with growth of *Pseudomonas aeruginosa*. In this case, a right mastoidectomy was associated with large spectrum antibiotics prolonged for 3 months. The anticoagulant therapy was established also.

Conclusions: The particularity of this case lies in that neurological symptoms had a slow recovery and also the difficulty