

check up system was also useful to detect congenital cholesteatoma in Japan.

We present the recent congenital cholesteatoma cases in our hospital and describe the check up system for hearing from newborns to infant in Japan.

Study design: retrospective chart analysis of consecutive patients with congenital cholesteatoma.

Patients: Between September 2004 and August 2015 conclusive 47 patients underwent primary procedure.

Intervention: The diagnosis of congenital cholesteatoma with Potsic staging system and the therapeutic operation were performed.

Main outcome measures: The chance of detecting the congenital cholesteatoma, the patient age, the stage of the disease, the pathology of the ossicles and the hearing result of the surgery were studied.

Results: Twenty two percent of the patients belonged to the Stage I and II without ossicular involvement. They showed normal hearing. Eighty eight percent of the patients belonged to the Stage III or IV and 76% of the patients showed good hearing result postoperatively. Thirty percent of the patients had diagnosed by the hearing check up and 32 % of the patients had found accidentally with microscopic examination at the ENT office.

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Epidemiology aspects of CSOM (R616)

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Condition of the contralateral ear in patients with cholesteatoma

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Learning Objectives: 1. Anatomical variants of tympanic compartments and their aeration patterns are one of the relevant pathogenetic factors involved in type of cholesteatoma occurrence. 2. The isthmus blockage theory could be a condition for the epitympanic type while tubal dysfunction is mandatory for mesotympanic type of cholesteatoma since the contralateral ear abnormalities are more frequent in the last one.

Introduction: In the recent years the incidence of chronic otitis media with cholesteatoma has decreased but remain a major challenge for surgeons due to the destructive characteristic of the disease. Although the pathophysiology of the acquired cholesteatoma remains to be clearly elucidated, it is presumed to be multifactorial, as many theories have been proposed and investigated. Anatomical variants of tympanic compartments and their aeration patterns are one of the contributing factors. Retraction pocket theory is the

most widely accepted but the contralateral ear in patients with cholesteatoma is less studied. The purpose of this study was to evaluate the contralateral ear in patients with cholesteatoma and to determine whether the characteristics of it differ according cholesteatoma growth patterns.

Methods: The charts of 924 operations for cholesteatoma performed from January 2000 to December 2013 at the Department of Otorhinolaryngology-Head and Neck Surgery, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca were analyzed retrospectively. Otomicroscopy was performed on both the affected and the contralateral ear. Cholesteatoma extension was noted during surgery.

Results: The age average for patients included in the study was of 41 ± 6.5 years (95%CI [39.32–42.85]). The frequency of significant changes in the contralateral ear was 49.2 %. 6.5% of patients presented with bilateral cholesteatoma. Other abnormalities were retraction pockets (32%), perforations of the tympanic membrane (25%), serous otitis media (5%). Contralateral ear modifications were more frequent in the posterior mesotympanic type of cholesteatoma cases.

Conclusions: Lower damage of contralateral ear in posterior epitympanic type of cholesteatoma supports the isthmus blockage theory for epitympanic cholesteatoma occurrence. Long-term follow-up of the condition of contralateral ear in cholesteatoma patients is mandatory for early intervention in order to prevent progression of the disease.

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Epidemiology aspects of CSOM (R616)

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Similarities and Differences in the Diagnosis and Treatment of Necrotizing Otitis Externa and Diabetic Foot Osteomyelitis

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Learning Objectives: Understand the similarities and differences between DFO and NOE

Background: Necrotizing otitis externa (NOE) is a severe inflammatory process effecting both soft tissue and bone. This disease is strongly associated with diabetic patients and, to a lesser extent, immunocompromised conditions. Diabetic patients are also at risk for the development of diabetic foot osteomyelitis (DFO), another inflammatory condition effecting soft tissue and bone.

Objective: compare NOE with DFO.

Methods: clinical review.

Results: Patient's characteristics and co-morbidities are similar in both entities. Similar to NOE, Pseudomonas A. is associated with DFO, particularly in warm climates. Unlike NOE, there is no role for superficial swab cultures in DFO and deep bone biopsies are recommended for the

diagnosis of the offending pathogen. MRI is reported to have a higher sensitivity and specificity compared to nuclear imaging in the diagnosis of DFO and is considered to be the imaging modality of choice for final diagnosis. Recommended treatment duration is similar in both entities, however surgery is usually performed early in the course DFO and only in a minority of cases of NOE. Repeated nuclear imaging for the evaluation of treatment response is not performed in DFO and follow up consists of physical evaluation and repeated measurements of inflammatory markers.

Conclusion: Appreciation of the similarities and differences between NOE and DFO may prove valuable in improving our understanding of NOE and advancing diagnosis and management.

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Epidemiology aspects of CSOM (R616)

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Prevalence and Associated Factors of Chronic Suppurative Otitis Media: Data from the KNHANES 2009–2012

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Learning Objectives: 1. To investigate the prevalence of CSOM (Tympanic membrane perforation, Retraction pocket, and cholesteatoma) in South Korea 2. To investigate factors associated with CSOM.

Chronic suppurative otitis media (CSOM) is a common infectious condition that can cause hearing loss and persistent otorrhea. The prevalence rates of CSOM in developed countries is typically <1%, while developing countries or some racial groups showed higher prevalence rates exceeding 4%.

The Korean Society of Otorhinolaryngology-Head and Neck Surgery participated in the Korea National Health and Nutrition Examination Surveys (KNHANES), which is a cross-sectional analysis of a nationwide health survey. In the survey, physical examination, interview and laboratory test were performed by the field survey team including an otolaryngologist. Data obtained in 2009–2012 were included in this analysis.

Among the population over 4-years-of-age ($n = 25,147$), the prevalence of CSOM was 3.13% (95% confidence interval [CI], 3.07–3.92). Specifically, the prevalence of tympanic membrane perforation, retraction pocket and obvious cholesteatoma was 1.78 % (95% CI, 1.51–2.00), 1.21% (95% CI, 1.02–1.40) and 0.34% (95% CI, 0.24–0.44), respectively. The prevalence of CSOM increased with age ($P < .001$) and had a female predominance ($P = .014$). In a multivariable analysis of associated factors in 14,396 participants over 19-years-of-age, hearing threshold, the presence

of tinnitus, diabetes, drinking alcohol, residence in a row house and education level of the mother were significantly associated with CSOM ($P < .05$).

Understanding of epidemiologic data and associated factors might contribute to the better management of CSOM and reducing the social burden.

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Epidemiology aspects of CSOM (R616)

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Epidemiology Aspects and Management of Chronic Suppurative Otitis Media in Viet Nam

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Background: Chronic Suppurative Otitis Media (CSOM) is an unresolved inflammatory process of the middle ear and mastoid, usually associated with tympanic membrane perforation, otorrhea from the middle ear for over than 12 weeks and hearing loss. CSOM can occur with or without cholesteatoma.

Method: Prospective study at 3 ENT hospitals in Hanoi, Danang and Ho Chi Minh city, Viet Nam that estimate the yearly incidence of CSOM to be 50 cases per 100,000 persons in children and adolescents aged 15 years and younger and 20 cases per 100,000 persons in 16–60 aged.

Results: Otorrhea, malodorous associated with cholesteatoma, hearing loss. Air conduction threshold is within 40 dB means Tympanic membrane (TM) perforation with intact ossicular chain, if air-bone gap is more than 40 dB is associated with discontinuity of ossicular chain.

Physical findings: defect in the pars tensa of TM or the pars flaccida or both atelectatic lesions in tensa or flaccida pars squamous epithelial invasion may invade middle ear granulomas, polyps, tympanosclerotic plaques in middle ear. Complications such as facial paralysis, labyrinthitis, cerebral abscess...When central nervous system involvement is suspected, MRI should be considered, Coronal CT scan is preferred.

Medical treatment goals: Infection control, stabilization of process, prevention of irreversible damage and development of serious complications.

Surgical treatment goals: Safe ear; dry ear; hearing ear.

Conclusion: The incidence of CSOM in Viet Nam: 4–6%.

Complications can be life-threatening: 32.03%. A good result in # 80% of the cases after surgery, hearing gained post-operation: 20–30 dB. Vietnamese Bioceramics is very good for ossicular chain reconstructive in tympanoplasty surgery.