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Learning Objectives: There is a high prevalence of chronic ear disease in the developing world. Poverty, lack of awareness regarding the importance of treating ear diseases and long distances are factors which result in late presentation with advanced disease. Tuberculous otitis media is also common in the Indian subcontinent, the hallmark being atypical presentation, severe hearing loss and early complications. TBOM can co-exist with cholesteatoma. This presentation will focus on the challenges in the management of chronic ear diseases in the developing world.

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Chinese experiences in management of chronic otitis media and cholesteatoma (N745)

ID: 745.1

Petrous bone cholesteatoma: transmastoid endoscopic surgery or Infratemporal fossa approach Type B

Presenting Author: **Zhiqiang Gao**

Zhiqiang Gao

Peking Union Medical College Hospital

Six difficult petrous bone cholesteatoma patients will be demonstrated which are divided into two groups according to the surgical methods. Three of them were performed transmastoid endoscopic approach and another three cases infratemporal fossa approach Type B. All the six cases achieve satisfied outcomes with follow-up. All these six cases related with the apical area where we think would be better be eliminated through the infratemporal fossa approach Type B or transmastoid together with the endoscopy. The former one can acquire the best exposure by inferiorly dis-joint the temporomandibular joint which do not cause subsequent mastication problems and have little influence on patients' appearance. The latter one, with the advancement of the surgical instruments such as the endoscopic, can also realize the surgical purpose which means to radical eliminate the lesion especially that medially to the otic capsule. At the same time, endoscopic have obvious advantages of function preservation for specially cases.

In conclusion, we'd better focus more on the lesion and the way to reach to and radical removal of them and should not be limited by any approach. Exposure, radical exenteration, adequate exteriorization, we recommend, are the basic principles for the temporal bone and lateral skull base surgeries include the PBC surgery. Even with the help of endoscopy, a radical exteriorized mastoid cavity

is always required for a best exposure. With the development of the instruments and equipment, so manipulation may be changed, the principle will be go on.

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Chinese experiences in management of chronic otitis media and cholesteatoma (N745)

ID: 745.2

Our experience of ossiculoplasty in chronic otitis media and cholesteatoma

Presenting Author: **Hao Wu**

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Learning Objectives:

Objectives: The aim of this study was to demonstrate our experience of ossiculoplasty using either partial ossicular replacement prosthesis (PORP) or total ossicular replacement prosthesis (TORP) in patients with chronic otitis media with or without cholesteatoma.

Methods: Five hundred seventy-three patients presenting chronic otitis media with or without cholesteatoma underwent ossiculoplasty from January 2001 to December 2014. A PORP is used when the stapes superstructure is intact. Conversely, a TORP is used if the superstructure is absent. The footplate of all patients was present and mobile. Audiometric results included ABG, closure of ABG, achievement of ABG ≤ 20 dB, and stability over time. The association between air-bone gain and age, ossiculoplasty material, preoperative diagnosis (chronic otitis media without cholesteatoma, cholesteatoma), and type of surgery (tympanoplasty, canal wall-down mastoidectomy, or canal wall-up mastoidectomy) was explored using regression analysis. Short-term results were analyzed within 6 months after surgery and long-term results were analyzed ≥ 12 months after surgery.

Results: There were 372 PORPs and 201 TORPs in our series. Overall, mean postoperative ABG was 18.5 dB at short-term and 21.7 dB at long-term follow-up ($p > 0.05$). And closure of ABG was 11 and 8 dB, respectively ($p > 0.05$). 74% of patients in PORP group and 56% of patients in TORP group achieved postoperative ABG ≤ 20 dB at 6 months after surgery. At long-term auditory follow-up (12 months), 71% of patients in PORP and 50% of patients in TORP group achieved postoperative ABG ≤ 20 dB. No significant differences in hearing results were found in different ossiculoplasty material.

Conclusion: Our results indicate that ossiculoplasty provide stable and excellent hearing improvement in patients with otitis media with or without cholesteatoma. Results with PORP was better than those with TORP. Several influential factors affected the outcomes of ossiculoplasty.

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Complications in Chronic ear surgery (R746)

ID: 746.1

Management of large tegmen defects and meningoencephalic herniation following Cholesteatoma surgery

Presenting Author: **Mohamed Badr-El-Dine**

Mohamed Badr-El-Dine

Faculty of Medicine, University of Alexandria, EGYPT

Learning Objectives:

Objective: The purpose of this presentation is to highlight the importance of tegmen defects that may result following cholesteatoma and mastoid surgery and emphasize the technical details for their reconstruction.

Introduction: Despite marked decline in the incidence of complications of CSOM, life-threatening complications still exist. The presence of thinning or dehiscence of the tegmen tympani or mastoidium is fairly common in CSOM especially after mastoidectomy, but only small portion of patients will demonstrate meningo/encephaloceles and CSF leakage.

Objective: The purpose of this presentation is to highlight the importance of tegmen defects that may result following cholesteatoma and mastoid surgery and emphasize the technical details for their reconstruction.

Methods: Fourteen patients operated for surgical repair of tegmen defects associated with different degrees of meningoencephalic herniation. Surgical approaches: 1) transmastoid; 2) middle cranial fossa; and 3) combination of both approaches. The choice of approach depends on size and site of the defect, hearing level, and surgeon experience. Small tegmen defects can be managed efficiently through the mastoid approach, while large defects require combined MCF and mastoidectomy. Following extradural dissection and encephalocele reduction or resection, we use a multilayer closure for direct repair of the dural and bony cranial base defects. Concave calvarial bone cut from the temporal craniotomy flap provides excellent material for reconstruction without any impingement on ossicular chain.

Results: All patients underwent surgical reconstruction of their tegmen defects without significant intraoperative or postoperative complications. All patients exhibited normal facial function postoperatively. None of our cases required lumbar drain placement.

Conclusion: Combined MCF and mastoidectomy approach proved effective to repair tegmen and dural defects. Surgical

repair prevents progression and meningitis. Advantages of this technique are the control of the floor of the MCF and reconstruct large-size bony defects even those located anteriorly without disrupting the ossicular chain.

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Complications in Chronic ear surgery (R746)

ID: 746.2

Labyrinthine fistulas management in chronic middle ear surgery

Presenting Author: **Manuel Jesús Manrique Rodriguez**

Manuel Jesús Manrique Rodriguez

University Clinic of Navarra

Learning Objectives: Summary abstract presentation in the conference: "Complications in chronic ear surgery".

One possible complication during cholesteatoma chronic middle ear surgery is labyrinthine fistula.

In this conference titled: "Complications in chronic ear surgery" a definition and classification of labyrinthine fistulas will be showed. Then, key aspects will be addressed such as: pre-surgical diagnosis and intraoperative management.

During first section we will focus on symptoms and physical signs suspicious of a labyrinthine fistula. Additionally, special attention will be given to pre-surgical radiological testing. Such evaluation should be mandatory in order to prevent auditory and vestibular complications during surgery.

During second section attention will be addressed to surgical treatment, showing an algorithm depending on cholesteatoma location, etiology and severity of the disease.

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Complications in Chronic ear surgery (R746)

ID: 746.3

How to avoid the complications of temporal bone surgery

Presenting Author: **David Andrew Moffat**

David Andrew Moffat

Addenbrookes, Cambridge University Teaching Hospitals NHS Foundation Trust.

Learning Objectives: To teach all of the factors that increase the risk of complications of surgery to the temporal bone.

This presentation is based on the importance of the development of good and safe technique in the surgical management of patients with temporal bone disease in order to minimise the risk of complications. An outline of the principles of surgery in chronic suppurative otitis media is followed by a demonstration of the anatomy of the temporal bone by comparing a coronal cadaveric section with the corresponding coronal CT scan. The importance of temporal bone dissection, supervision and training, high resolution imaging and