

*Conclusions:* The mean AC-PTA of ears with controlled cholesteatoma indicates that hearing is unsatisfactory in many of the individuals with controlled cholesteatoma. When it is evident that hearing is not within normal thresholds (whether ossiculoplasty was performed or not) all relevant rehabilitation options should be offered to the patients, including conventional hearing aids, bone conduction systems, middle ear implants or cochlear implants.

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## ID: IP118

### Middle Fossa approach to Bone Bridge Surgery

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*Learning Objectives:* to popularise the middle fossa approach to placement of the receiver stimulator and vibrating mass transducer of the bone bridge implant instead of the mastoid cavity

*Introduction:* The Bone Bridge is a new bone conduction device that works on the principle of transcutaneous sound transmission and a vibrating mass transducer placed with titanium screws on to the mastoid bone to deliver sound to the cochlea in conductive and mixed hearing losses. Since we use this technique mostly in children and adults with microtia, the placement of the device in the mastoid can compromise future otoplasty surgery for pinna reconstruction. We demonstrate a technique of middle fossa placement of the device that is easier to perform, quicker and leaves the post aural skin free for later reconstruction.

*Methods:* The bone bridge has a large vibrating mass transducer that needs a well fitting circular cavity so that the titanium screws are placed properly. We chose the area above the mastoid, above the transverse sinus for placement where a small incision can place the implant easily and firmly

*Results:* Of the cases performed in two centers, London health sciences center has done 19 and Calicut MESIARC 6. All these are middle fossa placements. The age of the patients vary from 4 years to 58. Placement timing was between 30–40 minutes for one side. No post operative immediate or delayed complications were noted. Hearing results were excellent.

*Conclusions:* The middle fossa technique of bone bridge vibrating mass transducer is a safe, easy and quick technique even in very young children with minimum morbidity

*Learning Objectives:* It is expected that this technique is more widely followed than the conventional sinodural angle placement method

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## ID: IP119

### Facial nerve dehiscence and middle ear cholesteatoma: endoscopic vs microscopic approach

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*Learning Objectives:* - Endoscopic approach in cholesteatoma surgery - Endoscopy vs microscopic approach in cholesteatoma surgery - Facial nerve dehiscence evaluation using oto-endoscopy

*Introduction:* Facial paralysis is one of the most devastating postoperative complications of cholesteatoma surgery, and dehiscence of the Fallopian canal may contribute to this serious complication. In recent years endoscopic approaches to the middle ear have increasingly been used. The aim of this study was to assess the incidence of facial nerve dehiscence in a group of patients with middle ear cholesteatomas who underwent primary exclusive endoscopic surgery (PEES).

*Methods:* Forty attic cholesteatomas were enrolled in the study. 20 patients underwent PEES were compared with a group of 20 patients that undergone microscopic surgery. Preoperative and postoperative clinical symptoms and disease duration before surgery were evaluated, together with the presence and site of facial nerve dehiscence, the presence and site of labyrinthine fistula, the type of surgery performed and the duration of the operation.

*Results:* The incidence of intraoperative facial nerve dehiscence in the EES group was 27.1%. Dehiscence was present in 42.3% of the patients who underwent revision surgery. The most common site of dehiscence (92.3%) was the tympanic segment. Similar data were reported in patients treated with microscopic approach without statistical difference between the two groups. No difference regarding post-operative complications was present in the two groups. PEES exhibited shorter surgical time.

*Conclusions:*

- Primary endoscopic surgery is a minimally invasive approach that circumvented bony work in sclerotic mastoid with antral or periantral cholesteatoma involvement with shorter times compared with mastoidectomy.
- Endoscopy is a 1-hand surgical manipulation and in some situations the need of 2-hand manipulation can oblige the use of microscopic dissection. However its complementary option in dehiscent facial nerve appears essential for evaluating hidden areas as in the area posterior to the geniculate

ganglion focusing the importance of the floor of the anterior epitympanum.

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### ID: IP120

#### **Cholesteatoma in children, is it really particular?**

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#### *Learning Objectives:*

*Introduction:* Cholesteatoma is a serious middle ear disease, affecting both adults and children. It is more special in children. Occurred on a pneumatized mastoid, cholesteatoma in children is more aggressive with a great potential of extension and a high tendency to recurrence. Although in literature many authors support this hypothesis, others still disagree with this point of view at the present time. Therefore, the particularity of cholesteatoma in children is a reality or just a myth? Our study aims to emphasize on this issue.

*Materials and methods:* with a longitudinal-type study on 82 cases of acquired cholesteatoma in children at ENT department of Ferhat Abbas university and Chawki & Achwak clinic between January 2004 and December 2015. The aim of this work is to illustrate the clinical, para clinical and therapeutic features of cholesteatoma in the pediatric population and highlight the main characteristics.

*Results:* The main reason for consultation is largely driven by the fetid otorrhea (96.5%), hearing loss, however, is well behind (66.7%). It is worth noting that Tubal dysfunction, adaptation disease, allergy are very common and characterize children. CT scan is the imaging method of choice in the pre-operative evaluation. It provides useful details, particularly regarding the pneumatization of the mastoid. Thus, confirming that cholesteatoma in children occurs on a very pneumatized mastoid which usually belongs to younger children. Granulation tissue in the middle ear and the mastoid cavities, denuded facial nerve, very extensive cholesteatoma are the most common difficulties to remove the disease and to prevent the recurrence which is absolutely higher than that observed in adults.

*Conclusion:* Cholesteatoma of the child is special because the child himself is special. The large clinical latency and the misdiagnoses complicate not only the task of the surgeon but also the prognosis with a high potential of recurrence whatever the technique used.

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#### **Endaural Approach through Post auricular Incision**

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*Learning Objectives:* Endaural approach can be performed through postauricular incision. Author has 20 years of experience using endaural approach in cholesteatoma surgery. Author will discuss the surgical technique, patient selection, difference in surgical drilling compared to cortical mastoidectomy, and results. Endaural approach allows minimally invasive surgery for cholesteatoma patients with fast recovery and smaller mastoid cavity for post-operative care. Hearing results are competitive to cortical mastoidectomy results. Case selection is important but also surgery can easily switch into canal down procedure if the pathology is larger than predicted before surgery. Cartilage grafting is an important part of the surgery and graft material is usually obtained from auricular concha rather than tragus.

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#### **Comparative study on different graft tissues for simple myringoplasty**

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*Learning Objectives:* Comparison of three different autologous graft tissues in simple myringoplasty in terms of effectiveness and hearing gain.

*Introduction:* In case of chronic otitis media it is possible to reconstruct the defect of the eardrum with different autologous materials: fascia (F), perichondrium (P), or cartilage (C). Last tissue shows greater resistance but might reduce the gain of the auditory canal due to its thickness. Aim of the study is to compare the effectiveness and the success in auditive gain of the 3 different tissues in simple myringoplasty.