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 pneumatised 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 preoperative evaluation. It provides useful details, particularly regarding the pneumatisation of the mastoid. Thus, confirming that cholesteatoma in children occurs on a very pneumatised 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.
**Material and Methods:** All simple myringoplasty of the last 3 years have been reevaluated. Exclusion criteria were the presence of a cholesteatoma and chronic otitis. An otoscopic picture of both ears was taken for each patient. The site of perforation was classified into anterior, posterior and subtotal. A PTA, according to the guidelines of the AAO-HNS has been performed before and 2 months after surgery.

**Results:** A total of 123 patients undergoing simple myringoplasty was identified. In 33 patients we used C, in 33 F and in 26 P. The overall failure rate was 10%, divided in: 12.1% for C (plus a further 12.1% of microperforation all repaired), 2.7% for F, 18.2% for P. The status of the contralateral ear showed it was pathological in 48.5% of cases of C, 16.6% F and 18.2% of P. The site of the perforation was anterior in 48.5% of C, 41.6% of F and 40.1% of P; posterior in 12.1% of C, 13.8% of F and 45.4% of P; subtotal in 39.4% of C, 44.4 F and 13.6% of P. The ABG was 26.9 dB for the preoperative C, 20.7 dB for F and 18.6 dB for P; The postoperative ABG was 17.3 dB for C, 13.1 dB for F and 11.5 dB for P. The auditive gain (difference of ABG pre and postop) was 9.5 dB for C, 7.5 dB for F and 7 dB for P.

**Conclusions:** The results show an overall success rate in line with the literature. It emerges that F has the best success rate but C is used mostly in cases where the contralateral ear is pathological. The auditory gain is comparable, even if C is chosen in the cases with a worse initial ABG.

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**An evaluation of the NHS Clinical Commissioning Policy on Bone Anchored Hearing Aids**

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**Learning Objectives:**

**Introduction:** The NHS Commissioning Policy on Bone Anchored Hearing Aids (BAHA) identifies the criteria for the commissioning of BAHA services and therefore has a major impact on patient access to care. This paper aims to evaluate the evidence base informing the NHS Commissioning Policy on BAHAs. We also aim to produce recommendations on BAHA policy development.

**Methods:** This study was conducted in two parts.

1) Critical assessment of the evidence based informing the NHS Commissioning Policy on BAHAs. Quality of included articles and the overall strength of the policy were assessed using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) System.

2) Systematic review of the literature on BAHAs published since the release of NHS Commissioning Policy. Papers were included if they could be used to inform the Commissioning Policy on BAHAs.

**Results:** All studies referenced by the policy were graded as ‘low quality’ or ‘very low quality’ evidence. The strength of the overall policy was graded as weak. The literature cited by the Commissioning Policy contained several areas of disagreement with the Commissioning Policy itself.

Nineteen articles were included following systematic review. These studies identified six areas for development of the NHS Commissioning Policy for BAHAs: 1) BAHA implantation in children with unilateral hearing loss; 2) BAHA as an alternative to other surgical treatments; 3) The minimum number of BAHAs implanted by a centre each year; 4) Unilateral BAHA implantation in patients with less than profound sensorineural hearing loss; 5) Bilateral BAHA implantation in adults; 6) BAHA implantation in patients with osteogenesis imperfecta.

**Conclusion:** It is important that these areas are reviewed by the commissioning board to help ensure equitable access to BAHA services and that resources are allocated effectively. It is also clear that high quality research is urgently needed in this field to help inform national policy.

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**Couplers for Vibrant Soundbridge® implant vs no-Coupler-Vibrant Soundbridge® implant**

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**Introduction:** The middle ear active implant Vibrant Soundbridge® (VSB) is a device designed for the treatment of the sensorineural, mixed and conductive hearing losses. Depending on the type of the hearing loss and the anatomical condition of the different middle ear structures, the placement of its FMT can be carried out in different ossicular chain points or directly on the round or oval window, aimed to obtain a direct stimulation of the inner ear. Recently, new Couplers have been designed to obtain a better coupling of the FMT with these structures.

**Objectives:** To compare surgical feasibility and auditory performance with VSB traditional system versus the new “Couplers” for the VSB implant

**Methods and materials:** Thirty eight patients treated with VSB systems are included at the moment. Eleven patients implanted with VSB Coupler versus 27 patients with no-Coupler VSB. Three out of eleven VSB Coupler implants were indicated for sensorineural hearing loss (SNHL) patients and eight of them for conductive and mixed hearing loss patients. Regarding no-Coupler VSB, seven patients were diagnosed of SNHL whereas twenty of conductive and mixed hearing loss patient.