Cholesteatoma involved the epitympanum in 78%, mesotympanum in 77%, and mastoid in only 52%. Subsite involvement in the epitympanum was: posterior 86%; middle, superficial to ossicles 69%; middle deep to ossicles 54%; anterior 65%, and anterior epitympanic recess 9%.

In the mesotympanum it was central over promontory in 76%; posterior-superior in 72%; in the facial recess and sinus tympani in 48%, anterior in 22% and in the hypotympanum in 12%.

In the mastoid it was restricted to the antrum in 52% and more widely in 26%.

Differences are described in the pattern of spread dependent on the site of origin from tympanic membrane.

Conclusion: This data shows cholesteatoma is primarily a condition of the meso- and epitympanum. One thus needs to be able to remove it from the complex subsites of the middle ear, including retrotympanum, and rehabilitate the mesotympanum. The frequent involvement of the ossicles in the epitympanum demands techniques to mitigate recidivism here. Our South African data is significantly different from what the literature describes - the question is whether this disease is different in different regions.

doi:10.1017/S0022215116006125

ID: IP116

Meeting Medical Expectations in Pediatric Cholesteatoma Surgery – Revisited

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Learning Objectives: to establish realistic expectations in pediatric cholesteatoma in the era of non-EPI-diffusion weighted MRI.

Introduction: Cholesteatoma is a struggle for a safe and convenient condition with the least possible surgeries in the presence of a disease that tends to re-create after complete removal due to the compromised ME physiology, as well as the possibility of residual disease.

Methods: Data collected from consecutive pediatric cholesteatoma surgeries performed by a single surgeon (ML) between 2001 and 2005 and between 2011 and 2015. Type and number of surgeries performed in each group over the follow up period before (2001 and 2005) and after (2011 and 2015) the introduction of non-EPI-diffusion weighted MRI were compared. Revision surgery was also performed in both groups at any point when recurrent cholesteatoma is detected by routine follow-up otoscopy (4–6 weeks, 3 m, and every 6 m thereafter).

Results: There were no significant medical or surgical complications in either group. 54.5% of the children operated between 2001–2005 ended with a CWD mastoidectomy condition (radical cavity) after a mean follow up of 5.8 ± 3.8. None of the children operated during 2011–2015, after the introduction of routine periodic post -operative non-EPI diffusion MRI follow-up ended at this point or expected to have at any point a radical mastoidectomy.

Conclusions: Currently, radical mastoidectomy with meatoplasty should not be used as one of the routine surgical options in pediatric cholesteatoma. Follow up (clinical and imaging) after cholesteatoma is absolutely mandatory, without it, children with cholesteatoma are exposed to a very significant and unnecessary risk. In cases of repeated, de-novo re-creation of cholesteatoma, or repeated infection in an existing radical cavity, a CWD mastoidectomy with blind sac obliteration of the EEC and the ME cleft is also a very practical option in certain cases, as it eliminates de-novo re-creation of cholesteatoma.

doi:10.1017/S0022215116006137

IP117

Hearing in Patients with Cholesteatoma: Facing Reality

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Learning Objectives: to confront the otologic community with the non-optimal hearing of individuals with controlled cholesteatoma.

Introduction: Goals of management in cholesteatoma are to create a safe ear (avoiding complications), to achieve a dry and convenient ear and to reach the best possible hearing restoration. Although hearing restoration is not defined as the first priority for treatment in cholesteatoma, it may have serious long-term effects on patient's life.

Methods: The study included two study groups. In one group there were 260 consecutive cholesteatoma surgeries, 128 adults and 132 children . The mean group follow-up was 6.6 ± 12.8 yrs. Hearing thresholds were analyzed according to type of surgery performed and age of the patients (children Vs adults). The other group includes 39 ears of children who were operated after the introduction of routine use of none EPI-diffusion weighted MRI and the complete avoidance of traditional radical cavities. In this group follow up was much shorter (Mean 1.4 ± 1.3 yrs.)

Results: Mean group air conduction (AC) PTA after canal wall up procedures were 38 dB in children and 55 dB in adults. Mean group AC-PTA after canal wall down procedures were 70 dB in children and 60 dB in adults. Group AC-PTA after canal wall up procedures were 38 dB in children and 55 dB in adults. In the group with radical mastoidectomy and reconstruction of the EEC and mastoid obliteration mean group AC-PTA was 40 dB as compared to 60 dB in the canal wall down cases which were left as radical cavities.