In 10% (2/20) patients the operated ear had a profound loss/dead ear pre-operatively. Audiological outcomes consisting of averaged thresholds at 0.5, 1, 2 & 4kHz were available for 15/18 of the remaining patients. Mean change in air conduction thresholds was 0db (median 0, range −25 – +25). Mean change in bone conduction thresholds was −2db (median −2, range −16- +15).

Conclusions: Mastoid cavity obliteration in our experience has been associated with excellent outcomes in terms of dry-ear rate and recurrence rate at median follow up of 15 months.

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Basic and translational research in cholesteatoma and ear surgery (N633)

ID: 633.1

Cholesteatoma among school-age children and adults - hearing screening program and surgical possibilites

Presenting Author: **Piotr Skarzynski**

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Learning Objectives:

Introduction: Restoration of hearing in patients with hearing impairment due to cholesteatoma (and CWU or CWD surgery) with lack of the ossicles, after modified radical operations could be done with direct stimulation of the round window membrane or bone conductive solutions.

Congenital cholesteatoma may occur in different age groups. It can be located in many sites including the cerebellopontine angle, the inner ear, the mastoid, the petrosus apex, the middle ear, the tympanic membrane, the external auditory canal. From the clinical point of view it is very important to detect it as early as possible. Hearing screening in school-age children was performed in Poland and other countries from 2008 to 2015. The program was focused on children at the age of 7–12 years old. The main aim of the program was to detect hearing disorders, which were not observed by the parents or teachers.

The objective of that presentation is analysis hearing results obtained after surgical application of different implants in treatment of hearing impairment patients with chronic inflammation of the middle ear, especially after radical modified operations. Another objective is to present results of cholesteatoma detection in different screening programs among school children around the world.

Material and Methods: The selected group of patients were children and adults with chronic inflammation of the middle ear, after radical modified operations with destruction of the elements of the middle ear - tympanic membrane and ossicles. Group of patient analyzed in tht study was 29312. We discussed the indications, contraindications and limitations of use of Vibrant Soundbridge in this group of patients.

Results and conclusions: Early detection, especially congenital cholesteatoma, is essential for very good results. There is many possibilities in reconstructive technique for hearing restoration. Each patient should be analyzed individually to different surgical way.

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Basic and translational research in cholesteatoma and ear surgery (N633)

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Imaging follow-up of patients after cholesteatoma surgery

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Learning Objectives: There are various techniques of cholesteatoma surgery but all of them carry the risk of residual or recurrent cholesteatoma development. Thus all the patients after cholesteatoma surgery require thorough follow-up and some patients a second look surgery. While open cavity surgery enables otoscopic recognition of cholesteatoma, the use of closed technique, obliteration of mastoid cavity or subtotal petrosectomy reduces the role of clinical examination in follow-up. Imaging modalities including HRCT and non-EP DWI MR is discussed in patients subjected to open or closed techniques, obliteration of the mastoid cavity or subtotal petrosectomy for removal of congenital and acquired cholesteatoma.

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Basic and translational research in cholesteatoma and ear surgery (N633)

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Combined model of intraoperative monitoring of ossiculoplasty efficiency by laser-Doppler vibrometry and auditory evoked potentials

Presenting Author: **Krzysztof Morawski**

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Learning Objectives:

Objective: To assess utility of combined electrophysiological and laser-Doppler Vibrometry (LDV) technique for intraoperative monitoring (IM) of air-bone gap closure (ABGC)

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