additional procedure included Cochlear Implants or Bone-anchored hearing aids. Charts were analysed for type of cholesteatoma, surgical procedures, hearing results, recurrence and follow up.

Results: Charts of 664 patients were analysed. Of these patients, 39% underwent CWD surgery, 38% CWU surgery, 4.9% CWD with Bondy's technique, 4.3% radical CWD, 0.75% subtotal petrosectomy and 13% of patients underwent a revision tympanoplasty. For long-term functional and hearing outcomes, 552 patients with a follow-up of $>$ 1 year were analyzed separately. Our experience shows an incidence of recurrent cholesteatoma of 19% during 10 years of follow up. In most of these cases CWU procedure was converted into a CWD mastoidectomy. Hearing results will be discussed upon presentation.

Conclusion: Surgery for cholesteatoma is especially challenging in a pediatric population because of the need for hearing preservation. Hence canal wall up mastoidectomy in a single or two stages should be the approach of choice in the pediatric population. The modified Bondy technique is a very useful hearing preservation procedure in limited epitympanic cholesteatomas. Radiological follow-up by DWI is mandatory in children for more than 5 years as recurrences can be seen even after 5 years.

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Free Papers (F812)

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External auditory canal pathology and Cholesteatoma complication. Management

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Learning Objectives:

External auditory canal (EAC) pathology very ofen is not a simple pathology. To resolve this ear problems : malfomations, infections, tumors etc., is necessary to have good medical and surgical knowledges. Cholesteatoma remains one of the most challenging ear diseases, its evolution leading sometimes to serious complications (facial palsy, vestibular disorders, meningitis, intracranial abscesses, sigmoid sinus thrombosis etc.). Surgical treatment is always required.

Methods: We reviewed the operative reports of 534 cases treated in the ENT clinic from Cluj between 1998–2005. Patients ages ranged from 3 to 81 years, with a mean age of 30. The surgical procedure was to follow the cholesteatoma extension from the tympanic cavity to mastoid cavity. We used for ossicular chain reconstruction incus body without osteitis, head of the malleus, and temporal cortical bone. For the reconstruction of the eardrum and the canal wall we used perichondrium, cartilage with perichondrium(palisade technique), or only cartilage. Patients with complications underwent the canal wall-down technique.

Results: Recurrence of supuration was noticed in 28% of cases, requiring a second intervention.

Hearing improvement was obtaind in 58% of cases, satisfactory results 19% of the patients, and 23% showed no improvement of the hearing.

The best outcomes in the hearing recovery were obtained by using the head of the malleus or the incus as a PORP prosthesis(40%). Tragal cartilage was used as the columella between the eardrum and the stapes with good results(15%). We also used temporal cortical bone grafts as TORP prosthesis with good results(13%).

Conclusions: In EAC deasthe infections need medical treatment , the tumours surgery and themalformation restoring of hearing and somtime of aesthetics surgery.

Reconstructive techniques using autologous materials proved to be valuable procedures for the recovery of the patients hearing.

The cholesteatoma must always be operated, the technique being individualized from case to case.

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Free Papers (F812)

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Studies to establish the safety of middle ear pellets using auditory brainstem response, cytocochleograms and histology

Presenting Author: **Emma Hoskison**

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Learning Objectives: Otitis Media with Effusion (OME) is the commonest cause of paediatric hearing impairment globally. Primary treatment is ventilation tube insertion with a 25% recurrence rate. Antibiotic laden pellets placed in the middle ear present a potential novel treatment strategy. This study aims to establish the safety of these pellets *in vivo*.

Introduction: Otitis Media with Effusion (OME) is the commonest cause of paediatric hearing impairment globally (Mandel et al 2008). Primary treatment is ventilation tube insertion (NICE Guidelines 2008) with a 25% recurrence rate (Gates et al 1987). Antibiotic laden pellets placed in the middle ear present a potential novel treatment strategy. This study aims to establish the safety of these pellets *in vivo*.

Methods: Rifampicin and Clindamycin loaded pellets made of poly lactic-co-glycolic acid were surgically placed in guinea pig middle ears. Auditory Brainstem Responses