and the creation of a dry, safe ear. For reducing of incidence of frequent cleaning need after CWD, as well as for control of reretraction of tympanic membrane after CWU tympanomastoidectomy, mastoid obliteration is preferable for many otological surgeons.

Material and Methods: 50 patients (16 to 65 y.o.) with cholesteatoma have been observed in this work. 34 ears have extensive cholesteatoma with erosion of posterior bony wall of ear canal. In 12 patients cholesteatoma involves only epitympanum, in 4-hole tympanic cavity. Posterior canal wall erosion due to cholesteatoma was indentified as the primary indication for radical mastoidectomy. Most patients mentioned periodic, only 7 of them- persistent otorrhea. All patients had conductive to mixed hearing loss with ABG more than 25 dB. 34 patients were undergone CWD, 16 CWU tympanomastoidectomy with mastoid obliteration using of bone pate′ from the cortical layer of mastoid. Temporalis fascia has been used for tympanic membrane grafting and for covering of mastoid cavity filling with bone pate′. Tragal cartilage has been used in 27 patients for placement between the head of the stapes and fascia. In cases of cholesteatoma in the oval window area, ossiculoplasty is postponed for second look surgery.

Results: Among the 50 patients 42(84%) grafts healed. In 5(10%) patients cholesteatoma developed during 3 years after the surgery. In 3(6%) patients reperforation occurred without cholesteatoma.

Conclusion: The mastoidectomy with tympanic membrane grafting and mastoid obliteration provides eradication of disease, prevents reretraction of tympanic membrane in patients with middle ear cholesteatoma. The results of surgery are good basis for the second stage- ossiculoplasty with hearing improvement.

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ID: IP152

Quality of life in patients with mastoid cavities dependent on aural care using COMQ12 - a disease specific PROM

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Learning Objectives: To ascertain the impact of having a mastoid cavity requiring regular aural care in a nurse led clinic on quality of life. This study higlights the need for using PROM in assessing QOL in this population in order to inform decision making when offering revision surgery.

Introduction: Patients with mastoid cavities dependent on aural care experience a significant disruption of their life. We aimed to assess patient reported health and quality of life (QOL) following surgery for Chronic Otitis Media (COM) using a disease specific patient related outcome measure questionnaire along with a generic QOL instrument.

Methods: Patients post surgical treatment of chronic otitis media for mucosal disease or cholesteatoma were recruited from nurse led clinics. All patients had mastoid cavities and no procedure to reduce or obliterate the cavity was undertaken at the time of primary or revision surgery. COMQ12 (chronic ear disease disease specific QOL) and Short Form 36 (SF36) questionnaires were adminstered.

Results: COMQ12 mean score was 14, median 13 (LQ6, UQ21), and range 2–31.SF36 scores were calculated for 8 domains, scored out of 100. Physical Functioning mean = 71 (median = 90, LQ = 35, UQ = 100); Physical role limitation mean = 63 (median = 100, LQ = 25, UQ = 100); Emotional role limitation mean = 79 (median = 100, LQ = 67, UQ = 100); Energy mean = 57 (median = 55, LQ = 50, UQ = 70); Emotional wellbeing mean = 75 (median = 80, LQ = 68, UQ = 92); Social function mean = 80 (median 100, LQ = 63, UQ = 100); Pain mean = 74 (median = 90, LQ = 33, UQ = 100); General health mean = 51 (median = 62.5, LQ = 33, UQ = 62.5).

Conclusions: On COMQ12 the most troublesome ear specific symptoms were difficulty in hearing in background noise and the TV, discharge and tinnitus. The frequency of symptoms impacted mainly on time of work and need for medication. On SF36 energy showed least variation, with most patients affected to some degree. Patients generally had good emotional wellbeing, social function, and had little pain. Physical functioning and role limitation scored high, with more variability.

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Petrous Bone Cholesteatoma: The Manchester Experience

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Learning Objectives: To discuss the surgical management of petrous bone (skull base) cholesteatoma To discuss the difficulty in recurrence in balance with preservation of anatomical structures To discuss the rates of hearing and facial nerve preservation in this disease.

Introduction: Petrous bone cholesteatoma medial to the otic capsule is very rare. Classification has been described by Moffat and Smith. Surgical management of the disease is extremely challenging and is a balance between total clearance of disease and preservation of critical anatomical

structures including jugular bulb, carotid artery, middle and posterior cranial fossa dura. Resection of the disease from the labyrinth and facial nerve may cause devastating long term effects and must be considered in light of patient preference for revision surgery against long term deficits. We present a series of patients from the Manchester Skull Base Unit and the management of their disease.

Methods: A prospective database has been collated with all patients with petrous bone cholesteatoma managed in the unit. Surgery was dependent on site of disease. All patients were monitored with yearly DWI Propeller Sequence MRI to ensure no recurrence of disease.

Results: We present 63 patients who have presented with petrous bone cholesteatoma at a tertiary referral skull base unit, aged 10 to 87. 38 patients (60%) presented with a good functioning facial nerve (House Brackmann equivalent 1–2) and 21 (33%) presented with useable hearing. The most common location of disease was supralabyrinthine 33%) although 28 (44%) had apical disease.

Complications were limited with one patient developing a CSF leak, one patient an abdominal wall haematoma, and one patient an infection in the wound. Only 7 (11%) had residual hearing following surgery. 40 (63%) have a good functioning facial nerve (HB 1–2) post operatively at 1 year. 19 patients (30%) had residual or recurrent disease requiring repeated procedures.

Conclusions: Most patients can expect to maintain good facial nerve function despite aggressive surgery. Residual or recurrent disease can be monitored using advanced MRI technique and repeat surgery can be performed as necessary.

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Clinical outcomes of tympanoplasty without mastoidectomy for chronic otitis media

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Learning Objectives:

Introduction: Since 2009, we perform tympanoplasty (TP) without mastoidectomy (w/o M) for chronic otitis media (COM), aiming preservation of the ventilating function in the mastoid air cells. In this paper, clinical outcomes of that surgery were reviewed.

Methods: We analyzed 54 cases with COM, who underwent the first operation of TP w/o M. Age distribution was 8–78 (median 61) and the minimum follow-up period was 12 months. We compared the rate of complete closure, hearing outcome, and preoperative CT findings between type I and type III cases. As for hearing, successful outcome means meeting one of the following criteria using an average (0.5, 1.0, 2.0 kHz); 1. Air-bone gap is less than 15db. 2. Hearing threshold improved more than 15db. 3. Hearing threshold is less than 30db.

Results: Type I TP was performed in 31cases and type III TP was done in 23 cases. Autologous bone was used as columella in all cases with type III TP. The TM closure rate of type I and type III at 12 months follow-up was 74.2% and 82.6%, respectively ($p = 0.68$). The successful hearing rates of type I and type III were 80.6% and 78.2%, respectively ($p = 0.82$). Only 1 case with type I TP presented with soft tissue density area in the mastoid in the preoperative CT, whereas 16 cases with type III TP was shown to have such area. There was no statistically significant difference in TM closure rate between cases with and without soft density area in the mastoid (81.2% vs. 85.7%, $p = 0.35$).

Discussion: There was no significant difference in either TM closure rate or hearing outcome between type I and type III. In type III TP, incus and the head of malleus are usually removed to secure the ventilation route from the Eustachian tube through the mastoid. This may be the reason for less disadvantage of TP w/o M even for COM with mastoid granulation. Another factor should be searched on the failure of TP w/o M.

Conclusion-Type III TP w/o M has similar benefit to type I TP even on COM with mastoid granulation.

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A Clinical Study on 87 Cases of Congenital Cholesteatomas Based on Potsic's Staging System

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Learning Objectives:

Objectives: We investigated the clinical features and surgical results of congenital cholesteatoma according to Potsic's staging system. Potsic proposed a classification system comprising four stages to evaluate the extent of disease as follows: I, disease confined to a single quadrant; II, cholesteatoma in multiple quadrants, but without ossicular involvement or mastoid extension; III, ossicular involvement without mastoid extension; and IV, mastoid disease.

Methods: A total of 87 patients who had undergone surgery at our hospital were retrospectively analyzed for presenting symptoms, the location of cholesteatoma, and surgical results according to Potsic's staging system.

Results: Of the 87 patients, 25 were classified as Potsic stage I, 13 as stage II, 35 as stage III, and 14 as stage IV. More than half of the patients with early-stage congenital cholesteatoma