

the diagnosis and treatment of ear disease as well as the longer term aim to identify and train a Malawian otologist. The project has also raised awareness of deafness in Malawi and has highlighted the significant public health issues relating to the aetiology of ear disease and deafness in 3rd world countries.

As well as addressing the practical and ethical issues relating to the project the presentation will outline future plans in developing both implant and otological surgery in Malawi and southern Africa.

doi:10.1017/S0022215116003236

Chronic Ear Diseases in developing world (R744)

ID: 744.2

What do we know about the burden of cholesteatoma in the developing world and what strategies could help

Presenting Author: **Michael Smith**

Michael Smith

International Nepal Fellowship

Learning Objectives: Understanding the burden of cholesteatoma in the developing world. Consideration of optimum management strategies in resource poor settings.

Chronic Otitis Media and its effects include hearing loss, reduced Quality of Life (QoL) and life threatening complications. These are major public health problems in developing countries. Many reviews include data from small or old studies and make generalisations that may now be inaccurate. The prevalence of cholesteatoma in most developing countries is unclear. It appears to be less frequent in some populations such as parts of Africa and S America, but much commoner in others such as SE Asia. Understanding of Otitis Media and COM has taken major steps forward in recent years. Risk factors and causes are generally agreed, but those specifically for cholesteatoma are less clear, in a developing country context. Some factors are amenable to targeted public health and primary care interventions and some countries have seen reducing incidence of COM and its complications. Prevalence studies of COM rarely distinguish between types of COM such as mucosal central perforations and cholesteatoma. Often the skills and materials required for diagnosis are lacking in under resourced health systems. Most agree that the treatment of cholesteatoma requires surgery. The complications of cholesteatomatous COM are usually considered more severe than mucosal COM. Both can be life threatening and many cases of 'safe' COM can also benefit from surgery. In poor resource settings with few specialists, how can patients be identified and surgery delivered? Do out reach camps play a useful part? Extensive disease is common and late stage, often worse than commonly seen by specialists from developed centres. What forms of surgery are most cost effective and safe to teach? Can developed nations partner in the development and training of local specialists?

After over 30 years experience in such settings, principally in Nepal I hope to open up some of these questions.

doi:10.1017/S0022215116003248

Chronic Ear Diseases in developing world (R744)

ID: 744.3

The impact of chronic otitis media on quality of life

Presenting Author: **Robin Youngs**

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Learning Objectives: To present quality of life issues in chronic otitis media, including the impact of corrective surgery. This study focuses in chronic otitis media in a developing world setting.

Hearing impairment is a significant burden in the developing world. However, no suitable quality of life (QoL) measures exist for use in Nepal. We aimed to amend and translate the Glasgow Health Status Inventory (GHSI), assessing QoL at any given time, and the Glasgow Benefit Inventory (GBI), assessing change in QoL following intervention, into Nepali and to assess the impact of ear disease and effect of surgery on QoL.

The GHSI and GBI were translated into Nepali and independently verified. The GHSI was administered by interview to patients before surgery, and the GBI was administered 6 months after surgery. The Mann–Whitney U-test was used for hypothesis testing.

The GHSI was administered to 242 patients. In total, 205 had chronic suppurative otitis media (CSOM) without cholesteatoma and 37 had cholesteatoma. The mean GHSI score was 47.9.

There was no significant difference in GHSI scores between patients with CSOM without cholesteatoma and those with cholesteatoma. The GBI was administered to 161 patients, 73 of whom had also been in the GHSI group. In total, 130 had CSOM without cholesteatoma, 31 had cholesteatoma. The mean GBI score was + 38.4 with no significant difference between disease groups.

Conclusions: Ear disease in Nepal is associated with reduced QoL, and surgical intervention is associated with improved QoL. There is no difference in QoL or benefit following surgery for CSOM between patients with or without cholesteatoma. There are few QoL measures suitable for the developing world. It is essential to invest in these measures to guide health interventions.

doi:10.1017/S002221511600325X

Chronic Ear Diseases in developing world (R744)

ID: 744.4

Chronic Ear Diseases in The Developing World

Presenting Author: **Mohan Kameswaran**

Mohan Kameswaran

Madras ENT Research Foundation (P) LTD

Learning Objectives: There is a high prevalence of chronic ear disease in the developing world. Poverty, lack of awareness regarding the importance of treating ear diseases and long distances are factors which result in late presentation with advanced disease. Tuberculous otitis media is also common in the Indian subcontinent, the hallmark being atypical presentation, severe hearing loss and early complications. TBOM can co-exist with cholesteatoma. This presentation will focus on the challenges in the management of chronic ear diseases in the developing world.

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doi:10.1017/S0022215116003261

Chinese experiences in management of chronic otitis media and cholesteatoma (N745)

ID: 745.1

Petrous bone cholesteatoma: transmastoid endoscopic surgery or Infratemporal fossa approach Type B

Presenting Author: **Zhiqiang Gao**

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Six difficult petrous bone cholesteatoma patients will be demonstrated which are divided into two groups according to the surgical methods. Three of them were performed transmastoid endoscopic approach and another three cases infratemporal fossa approach Type B. All the six cases achieve satisfied outcomes with follow-up. All these six cases related with the apical area where we think would be better be eliminated through the infratemporal fossa approach Type B or transmastoid together with the endoscopy. The former one can acquire the best exposure by inferiorly dis-joint the temporomandibular joint which do not cause subsequent mastication problems and have little influence on patients' appearance. The latter one, with the advancement of the surgical instruments such as the endoscopic, can also realize the surgical purpose which means to radical eliminate the lesion especially that medially to the otic capsule. At the same time, endoscopic have obvious advantages of function preservation for specially cases.

In conclusion, we'd better focus more on the lesion and the way to reach to and radical removal of them and should not be limited by any approach. Exposure, radical exenteration, adequate exteriorization, we recommend, are the basic principles for the temporal bone and lateral skull base surgeries include the PBC surgery. Even with the help of endoscopy, a radical exteriorized mastoid cavity

is always required for a best exposure. With the development of the instruments and equipment, so manipulation may be changed, the principle will be go on.

doi:10.1017/S0022215116003273

Chinese experiences in management of chronic otitis media and cholesteatoma (N745)

ID: 745.2

Our experience of ossiculoplasty in chronic otitis media and cholesteatoma

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Learning Objectives:

Objectives: The aim of this study was to demonstrate our experience of ossiculoplasty using either partial ossicular replacement prosthesis (PORP) or total ossicular replacement prosthesis (TORP) in patients with chronic otitis media with or without cholesteatoma.

Methods: Five hundred seventy-three patients presenting chronic otitis media with or without cholesteatoma underwent ossiculoplasty from January 2001 to December 2014. A PORP is used when the stapes superstructure is intact. Conversely, a TORP is used if the superstructure is absent. The footplate of all patients was present and mobile. Audiometric results included ABG, closure of ABG, achievement of ABG ≤ 20 dB, and stability over time. The association between air-bone gain and age, ossiculoplasty material, preoperative diagnosis (chronic otitis media without cholesteatoma, cholesteatoma), and type of surgery (tympanoplasty, canal wall-down mastoidectomy, or canal wall-up mastoidectomy) was explored using regression analysis. Short-term results were analyzed within 6 months after surgery and long-term results were analyzed ≥ 12 months after surgery.

Results: There were 372 PORPs and 201 TORPs in our series. Overall, mean postoperative ABG was 18.5 dB at short-term and 21.7 dB at long-term follow-up ($p > 0.05$). And closure of ABG was 11 and 8 dB, respectively ($p > 0.05$). 74% of patients in PORP group and 56% of patients in TORP group achieved postoperative ABG ≤ 20 dB at 6 months after surgery. At long-term auditory follow-up (12 months), 71% of patients in PORP and 50% of patients in TORP group achieved postoperative ABG ≤ 20 dB. No significant differences in hearing results were found in different ossiculoplasty material.