Presenting Author: Anand Kasbekar

Anand Kasbekar1, Guleed Adan2, Alaina Beacall2, Ahmed Yousser2, Catherine Gilkes2, Tristram Lesser2

1Cambridge University Hospitals NHS
Foundation Trust, 2Aintree University Hospital, Liverpool, UK

Learning Objectives:

Objectives: To identify whether certain locations at the cerebellopontine angle (CPA) and internal auditory meatus (IAM) predispose to growth of medium and large unilateral Vestibular Schwannoma (VS) residual tumour left behind at surgery.

Methods: A retrospective review of case notes and radiology scans was undertaken at the Liverpool Skull Base unit. Measurements conformed to the 2003 Consensus meeting on VS reporting.

Results: 67 unilateral sporadic VS were surgically treated between the years 2006 and 2010 of which 52 had residual tumour left behind available for analysis. Of these, 20 grew [these had previous excisions which were 4 near-total excisions (less than 5% residual tumour left), and 16 sub-total excisions (more than 5% residual tumour left)]. Follow-up was for a median of 6.4 years (6.4 to 8.1 years). Residuum was left at various locations: the CPA had 48 residuals, 21 grew (44%); the IAM had 47 residuals, 14 grew (30%). Within the IAM the porus had 47 residuals, 11 grew (23%); and the fundus had 12 residuals, 2 grew (14%). Time to growth varied between 1.75 years and 5.5 years (average 3.1 years). Of the 20 growing residuum, 17 required treatment (13 had radiotherapy, 3 had surgery followed by radiotherapy, 1 had just surgery).

Conclusions: Along with other patient, tumour, and surgical factors, the less than 95% excision of VS predisposes to regrowth of the residual tumour, and such patients should be monitored closely for at least 10 years. The data suggests that the CPA is the most likely site for residual tumour to grow and that the IAM is a safer site to leave tumour behind, if necessary. The larger the VS, the greater the size of the residual tumour left at surgery and thus the greater the chance of regrowth. These factors should be borne in mind when deciding on when to intervene in patients with growing tumours. There is a need for standardised reporting of residual tumour outcomes, which will allow accurate comparison, and pooling of data.

doi:10.1017/S0022215116004242

Free Papers (F833)

ID: 833.4

Reconstruction of tegmen defect by transmastoid approach

Presenting Author: Rie Kanai

Rie Kanai, Shin-ichi Kanemaru
Medical Research Institute, Kitano Hospital

Learning Objectives: To discuss about the procedure of reconstruction of tegmen defect by transmastoid approach to prevent meningo-encephalocele.

Objective: Tegmen defect is caused by progression of middle ear disease. Sometimes, meningo-encephalocele (MEC) occur into the middle ear through tegmen defect, which can cause serious complications: meningitis, cerebro spinal fluid (CSF) leakage, epilepsy. Hearing loss also can cause by MEC pressing ossicular chain. We discuss about the procedure of reconstruction of tegmen defect by transmastoid approach to prevent MEC.

Design: Retrospective study

Subjects and method: Seven cases (2 male 5 female, mean age 65.2) with large tegmen defect or with tegmen defect and CSF leakage were enrolled in this study. These patients underwent tympanomastoidectomy with reconstruction of the tegmen defects by transmastoid approach.

The kinds of diseases were cholesteatoma in 3 cases, cholesterol granuloma in 2 cases and MEC after previous middle ear surgery in 2 cases.

We analyzed the size of the defect, the materials for reconstruction and the complications; MEC, CSF leakage, the recurrence of the diseases.

Results: The size of defects were about 8 mm in 1 cases, more than 10 mm in 3 cases and more than 20 mm in 3 cases. The tegmen defects were reconstructed by cortical bony plate with or without bone putty in all cases. In 2 cases, a part of dura was resected because lesion adhered to dura severely, then CSF leak occurred. We reconstructed also the dural defects by temporal fascia. In 2 cases with MEC, the lesion were resected by cauteterization before the reconstruction of tegmen defect. We confirmed that bony tissue of tegmen was regenerated in all cases by postoperative CT scan. In 4 cases, they was confirmed during 2st stage surgery. Although the recurrence of cholesteatoma was found distant from tegmen in one case, no patient have developed MEC, CSF leakage and other serous complication.

Conclusion: Tegmen defect can be reconstructed by transmastoid approach. Reconstruction of tegmen defect by cortical bone will be helpful to prevent MEC and CSF leakage.

doi:10.1017/S0022215116004254
Conclusions: The most common symptoms of Petrov bone cholesteatoma were hearing loss and FN paralysis. The high resolution temporal bone CT scan has important value in finding PBC. The classification of PBC is fundamental to choose the appropriate surgical approach, and middle fossa approach is most common approach. Radical removal lesions should be prioritized over hearing preservation. Restoration of facial nerve (FN) function is achievable by reanimation procedures.

doi:10.1017/S002215116004278

Free Papers (F833)

ID: 833.7

Primary tumors of the facial nerve misdiagnosed many years prior: What is the appropriate treatment?

Presenting Author: Hj Yi

Hj Yi

Beijing Tsinghua Changgung Hospital, Medical center, Tsinghua University

Learning Objectives: This paper was to determine the characteristics of facial nerve primary tumors misdiagnosed as tumor-free conditions many years prior, and to identify appropriate treatments. The cases of five Chinese patients with misdiagnosed primary tumors of the facial nerve were reviewed; in each case, the condition had been misdiagnosed more than 8 years prior. All patients presented with progressive or complete facial paralysis and hearing loss, with or without vertigo. We reviewed pre- and post-operative images (including CT scans of the temporal bone) and MRI data. After review, all tumors were completely resected. Facial-hypoglossal nerve anastomosis failed in one patient whom we sought to manage in two stages, because fibrosis developed at the end of the facial nerve. One patient accepted two-stage facial-hypoglossal nerve anastomosis and patient status improved to House-Brackmann (H-B) grade V from H-B grade VI. The other three patients chose not to undergo reconstruction. All patients recovered well, with no other complications evident after follow-up periods of 0.5–3 years. Unusual primary tumors of the facial nerve should be considered in patients with progressive facial paralysis, especially if this is accompanied by hearing loss or vertigo. Misdiagnosis creates operative difficulties, diminishes the chance of facial nerve reconstruction, and increases the likelihood of poor reconstructive outcomes.

doi:10.1017/S002221511600428X

Bone conduction hearing devices in single sided deafness (R834)

ID: 834.1

Baha Attract System: 6-month results of a multicentre, open, prospective clinical investigation

Presenting Author: Myrthe Hol