Methods: Single-surgeon (senior author), retrospective case review of procedure time (retrieved from theatre computer logs) for patients undergoing tympanoplasty, or primary tympanomastoid surgery for cholesteatoma, during a period of transition from conventional open to a principally endoscopic ear surgery practice.

Results: 109 patients (7–85yrs) underwent tympanoplasty/primary cholesteatoma surgery. Entirely endoscopic technique in 22/42 tympanoplasty and 29/67 cholesteatoma procedures. Mean operative time for endoscopic tympanoplasty was 77.7 mins.(range 41–126 mins.), for open procedures 95.3 mins.(range 50–120 mins.). Endoscopic approach was quicker compared to open surgery ($p = 0.031$). In mastoid surgery the mean surgical time was 154 mins.(range 91–205 mins.) for the endoscopic technique and 169 mins. (64–259 mins.) for open surgery. There was no significant difference between these two groups ($p = 0.082$).

Conclusion: Operative time is not a drawback when transitioning from a conventional open to predominately EES otology practice. For tympanoplasty procedures it is significantly faster utilising the endoscopic approach. Endoscopic mastoid surgery has similar time to conventional techniques.

doi:10.1017/S0022215116006368

ID: IP140

Lemierre's syndrome: a difficult diagnosis

Presenting Author: **AE Louise McMurran**

Ahmad Moinie, Constantinos Mamais, AE Louise McMurran, Bhaskar Ram

Aberdeen Royal Infirmary, NHS Grampian

Learning Objectives: We aim to identify early features common to cases of Lemierre's syndrome to facilitate prompt diagnosis and treatment.

Introduction: Lemierre's syndrome is an uncommon, but potentially deadly, complication of common infections of the throat and ear involving thrombophlebitis of the internal jugular vein. Oropharyngeal and auricular infections are some of the most commonly presenting illnesses so physicians must be aware of this diagnosis. However it may be easily missed as early signs are often subtle and non-specific.

Methods: We highlight the difficulty faced in the diagnosis of Lemierre's by presenting the case of a 15 year old boy admitted with sepsis from chronic otitis media, alongside a review of the literature.

Results: As seen with our patient, a common theme in cases of Lemierre's is late diagnosis. He was found to have septic pulmonary emboli on CT pulmonary angiogram after developing breathlessness. From our literature review, the features that can aid early recognition include; headache, neck ache, tenderness over sternocleidomastoid muscle, trismus, chest crepitations and Fusobacterium grown from blood cultures. Later signs include dyspnoea, desaturations, pleuritic chest pain and other signs of septic pulmonary emboli which prompt chest imaging.

*Conclusion*s: Due to the potentially fatal consequences of Lemierre's syndrome, a high index of suspicion should be applied to patients with oropharyngeal or ear infections where symptoms do not settle with 24 hours of antibiotics or where pain, trismus or chest symptoms and signs are seen. We recommend the use of CT or US to screen for IJV thrombosis earlier in the clinical course of these infections.

doi:10.1017/S002221511600637X

ID: IP141

Endoscope-assisted microsurgery for cholesteatoma removal

Presenting Author: **Hiroko Monobe**

Hiroko Monobe[1], Kazunari Okada[2], Wakako Nakanishi[2], Amiko Ishii[2]

[1]*Japanese Red Cross Medical Center,*
[2]*Department of Otolaryngology, Japanese Red Cross Medical Center*

Learning Objectives:

Introduction: Endoscopes can facilitate surgery within the facial recess, sinus tympani, and deep part of the round window niche, which are not fully visualized under an operating microscope. We investigated whether using endoscope-assisted dissection of cholesteatoma gave a lower incidence of cholesteatoma recurrence than using microscopic dissection only.

Methods: Four patients with middle ear cholesteatoma were operated on by using intact canal-wall techniques, canal-wall reconstruction techniques, or transcanal approaches assisted by endoscope-guided dissection. Eleven patients were operated on by using the same techniques but under an operating microscope alone. Comparison of group (A) microscopic surgery assisted by endoscope-guided dissection, with group (B) microscopic surgery only.

Main Outcome Measures: Rates of cholesteatoma recurrence, controlling for the site of the initial cholesteatoma and whether the tumor was detected by second-stage surgery or by non-echo-planar-imaging diffusion-weighted MRI.

Results: Five patients in group B (5/11, 45%) had cholesteatoma recurrences in a follow up of 1 year that needed to be surgically removed. No group A patients (0/4, 0%) developed cholesteatoma recurrences in that period.