CWJ Short Fellowship report

Antwerp Bony Obliteration Tympanoplasty Course
November 2023, European Institute for ORL, Sint Augustinus
Antwerp, Belgium

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I was very fortunate to be able to go to Antwerp in November 2023 for the bony obliteration tympanoplasty course and observership. I am extremely grateful to the TWJ Foundation for awarding me this short fellowship and would highly recommend it to any senior otology trainee or consultant.

To summarise the technique, the majority of primary cholesteatoma surgery is carried out preserving the canal wall and obliterating the mastoid (87%). If the ossicular chain is intact, then the epitympanic space is preserved and the mastoid alone obliterated (10%). For the worst cases (dead ear, osteitis, pain) a subtotal petrosectomy and blind sac closure is performed (3%). Revision surgery for canal wall down cases is carried out with a canal wall reconstruction technique using a combination of bone dust and chips as well as a middle temporal artery graft or cadaveric skin graft. Their outcomes for recurrent and residual disease rates are compelling. In their hospital the paediatric recurrent and residual disease rates pre-BOT were 19 and 24% respectively: using BOT surgery with 25 years of follow up, these have dropped to 3 and 6%. In adults the figures have gone from 5 and 7% to 3 and 3% respectively.

Transport there by train from London was straightforward and comfortable. I stayed in a hotel near the hospital which allowed me to walk to and from the hospital through the beautiful park that backs onto it. On the first day, I was met by one of the otology fellows who kindly showed me around the department and introduced me to the theatre team. On the first day of the observership, I was able to watch Professor Officiers complete a subtotal petrosectomy and blind sac closure. It was very interesting in particular to see how they close the Eustachian tube. This is performed by drilling the tensor tympani canal and freeing the muscle to then fold it back on itself into the Eustachian tube, allowing a live muscle graft to sit within the opening which in theory should provide superior closure.

On the second day I was able to observe a bony obliteration tympanoplasty. All canal wall up cases are started with a soft tissue and bony meatoplasty using the Mirck technique with an adapted lateral oblique incision that allows a bony canalplasty and rotation flap. There is an art to harvesting the bone chips using a chisel and hammer and I was also very interested in seeing the effect of uromitexan which is obtainable in UK pharmacies (Mesna) for cholesteatoma dissection. I also liked the ophthalmological perforated silicon dressing they use in the ear canal to ease pack removal.

They have used cadaveric allografts for many years successfully due to the close relationship they have with the hospital morgue and the take results are impressive. I am not sure how transferable this would be to the UK system.

The final 3 days were dedicated to the bony obiteration tympanoplasty course. This takes place in the private rooms opposite the hospital where they have an exceptional setup with a conference room linked to a 3D television screen conveying live surgery from the operating theatre, allowing us to observe and interact with live surgery. This was continued throughout the day and complemented by the excellent lectures that took place at intervals. The whole philosophy and each step of the technique and work-up including radiology was explained in detail with very engaging speakers.

We had ample opportunity to practise all of the techniques in the laboratory. Each station was equipped with a microscope, complete with a memory card to enable photos and videos. The instruments were all of good quality and each delegate had a whole head enabling dissection of two ears. There was always a faculty ratio of at least 3:1 which made it very easy to ask questions when necessary.

The faculty are openly very keen on their food and provided wonderful lunches each day, akin to what you might expect in a Michelin restaurant in the UK and certainly beyond what you would find in the NHS hospital canteen. We also had a delicious meal in a restaurant in town providing a great opportunity to network with colleagues from Belgium, Holland, France and Iraq.

The whole philosophy behind bony obliteration tympanoplasty is hard to argue against and is gaining momentum in the UK. The greatest challenge surrounds the initial learning curve as surgery there often takes between 4 and 6 hours even in experienced hands. There is not much extra equipment required and all the techniques are easily transferable to UK otological practice. I look forward to implementing many of these, and further down the line hopefully observing the inevitable reduction in recurrent and residual disease that this technique allows.