

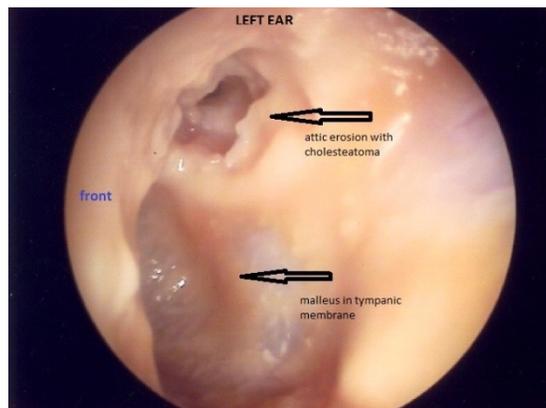


Cholesteatoma Patient Advice Sheet

What is cholesteatoma:

Cholesteatoma is a sac of skin, arising from the eardrum, which slowly enlarges and erodes the inside of the mastoid bone behind the ear and may damage hearing, balance and the nerve which supplies the muscles of the face. The sac usually arises from the upper part of the ear drum.

It normally arises because of poor Eustachian tube function in childhood which causes a vacuum behind the ear drum (similar to putting a bit of clingfilm over your mouth and sucking inwards) it can start as a small dimple or pocket on the ear drum which gradually enlarges and eventually forms an erosive sac, full of dead skin, which starts to release enzymes that destroy bone. In rare cases it can cause more serious problems such as meningitis or a brain abscess.



Normally, surgery is required to cure this. The aim of the surgery is to give a safe, dry and hearing ear by excising the cholesteatoma sac and reconstructing the hearing mechanism. There are two types of operation which attempt to achieve this.

Combined approach tympanoplasty (CAT)

Combined approach tympanoplasty attempts to remove the disease by viewing the middle ear and mastoid through the ear canal and mastoid bone. After the cholesteatoma sac is removed, the bone of the ear canal is preserved and the

ear drum restored to its normal position. This procedure therefore preserves normal anatomy and some argue that hearing is better, the ear is more likely to be dry after the operation, there are no swimming restrictions and once the ear is deemed clean of disease no further care is required.

The disadvantage is that very small pieces of cholesteatoma may be left behind as it can be difficult to observe all the recesses where it can hide (the otoendoscope and KTP laser has reduced this problem) and for this reason a second operation is always required to ensure the ear is truly free of disease. This usually takes place at 6-12 months after the first procedure. If the ear is clean the bones of hearing are reconstructed to enhance hearing. If at the second operation some residual disease remains, it is removed and a further operation may need to be performed 6-12 months later. More recently we have been using a special type of MRI scan which it is thought is effective for looking at residual disease.

Modified radical mastoidectomy (MRM)

In a modified radical mastoidectomy the normal structure of the ear is not maintained. Again the mastoid bone is drilled away, the middle ear observed through the ear canal and cholesteatoma disease removed. Here, however, to enable good clearance of disease the back wall of the ear canal is drilled away, the eardrum is partially removed and the patient is left with a mastoid cavity which may be viewed through the ear canal in the clinic.

In effect, one looks into the ear canal and can see a little cave where the back wall of the canal was, the limits of the cave being the roof and back wall of the mastoid bone. In this procedure access to the disease is very good and usually all is removed. Any left behind will grow out rather than in anyway, and therefore usually only a single operation is required to render the ear safe. Discharge from the ear after this procedure is more likely than with a CAT and that hearing results tend not to be so good but this is by no means certain.

After this operation the skin lining the mastoid does not push the wax out automatically therefore follow-up in the clinic at least at yearly intervals will be required forever to keep the mastoid cavity clean. Normally one should keep a mastoid cavity dry whereas with a combined approach tympanoplasty it is normally possible to swim without worrying about water getting into the ears.

The type of operation planned will depend on many factors which will be discussed with the patient in the clinic. Often if it is necessary to do a 3rd or 4th Combined approach tympanoplasty (unusual) where the disease is difficult to remove a decision may be made to convert the ear to a modified radical mastoidectomy.

The Operation

The CAT and MRM are similar so far as the patient's course through the operative period is concerned. All patients are seen 1 week before the operation to ensure all the investigations (a hearing test and CT scan of the ear) are in place and there are no further questions that need addressing. The patient is admitted on the day of the operation and seen by the surgeon and anaesthetist. The operation takes 2/3 hours under a general anaesthetic

For more information regarding these operations, please look under the operations performed page on our website.