Cholesteatoma quiz - Answers

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1. What are the differences between a congenital and an acquired cholesteatoma? How do a primary and secondary acquired cholesteatoma differ?

Congenital cholesteatomas are uncommon and arise in ears that have not been troubled by otitis in the past. It is believed they grow from a small nidus of epidermal cells that appear in the first trimester in utero. Acquired cholesteatoma are by far more common. They arise because of two factors; problems with epithelial migration and a negative middle ear pressure.
A primary acquired cholesteatoma arises in the pars flaccida. These are most common. A secondary acquired cholesteatomas arise from a defect in the pars tensa.

2. What is a tertiary acquired cholesteatoma and how does this form?
This type of cholesteatomas arise behind an intact tympanic membrane and are a result of implantation of epithelial skin cells from a previous otological procedure e.g. grommet insertion.

3. What are the complications of cholesteatoma?

Middle ear complications:

1. Conductive hearing loss as the ossicles are eroded
2. Facial palsy as the bone covering the facial nerve is destroyed

Inner ear complications (medial to the middle ear)

1.Sensorineural hearing loss
2.Vertigo
3.Labyrinthitis
4.Petrositis or inflammation of the petrous temporal bone

Mastoid and posterior fossa complications (posterior to the middle ear)

1.Mastoiditis with subperiosteal abscess (behind the ear).
2.Meningitis
3.Cerebellar abscess
4.Sigmoid sinus thrombosis

Middle fossa complications (superior to middle ear)

1. Meningitis
2. Temporal lobe abscess
3. Extradural abscess
4. Subdural abscess (uncommon)

Anterior and inferior to the ear

1. Abscesses can form in the sternocleidomastoid or in the Zygomatic region

4. Discuss the management of a cholesteatoma?

Management of cholesteatoma is usually surgical although some patients are not fit for surgery or decline it.

There are many types of operation used to explore the ear and remove cholesteatoma e.g. atticoantrostomy, combined approach mastoidectomy and cortical mastoidectomy but an understanding of these is outside your curriculum. However, you should remember these two operations as they are amongst the commonest:

1. Atticotomy. Used when the disease is limited to the attic region i.e. is relatively small

2. Modified radical mastoidectomy. Used when the disease extends backwards into the mastoid system.