Cholesteatoma manifesting as an external auditory canal polyp

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ABSTRACT
Cholesteatoma is a serious disease of the ear. It is defined as a benign skin lesion that grows in the middle ear cleft. The most commonly affected sites are the middle ear cavity and mastoid bone. It can also develop in the petrous apex. It can manifest with a wide range of symptoms ranging from persistent ear discharge to hearing loss. The treatment is almost always surgical excision. We report a rare case of middle ear cholesteatoma that presented as an aural polyp arising from the posterior wall of the external auditory canal.

Keywords: Cholesteatoma, complications, manifestations, polyp

INTRODUCTION
Cholesteatoma is an expanding keratinised squamous epithelial lesion that is typically located in the middle ear cavity and mastoid process. It consists of an outer matrix layer that is composed of squamous epithelium surrounded by a connective tissue layer with central keratin mass. There are two types of cholesteatoma; congenital and acquired. The acquired type is more common. The exact etiology of this lesion is unknown. There are four theories proposed to explain the development of the acquired cholesteatoma. However, the most accepted mechanisms include the migration of squamous epithelium to the middle ear through a perforated tympanic membrane or progressive formation of a retraction pocket in the pars flaccid of an intact tympanic membrane secondary to abnormal Eustachian tube function resulting in accumulation of keratin in this pocket. The diagnosis of cholesteatoma is based on clinical examination and usually is not difficult even in the presence of complications. Although it is a benign condition, it has a tendency to grow resulting in local destruction resulting in serious complications. We report the case of a patient with a cholesteatoma who manifested as an external ear polyp.

CASE REPORT
A 41-year-old lady presented with pain and pus discharge from the left ear for two months. The discharge was intermittent asso-
associated with pain and reduction in the hearing but no tinnitus or vertigo. Her past medical history was relevant for a right modified cortical mastoidectomy for right ear cholesteatoma.

Otoscopic examination of the left ear showed a smooth surfaced aural polyp filling the external auditory canal with minimal pus discharge. On examination under microscope (Jobson Horne Probe 266R, Germany), the polyp and the pedicle were seen to arise from the posterior wall of the left external auditory canal (Figure 1a). The polyp was treated with placement of an Ichthammol soaked ear-wick in the left ear canal, topical steroid drop to reduce the size of the polyp and ofloxacin ear drop to treat the infection. These were done for three days. Subsequent otoscopic examination three days later showed that the polyp had regressed and interestingly, a cholesteatoma was seen at the site of the polyp with sagging of the posterior wall of the left external ear canal (Figure 1b). Additionally, an attic retraction pocket containing pus and debris was seen in the left tympanic membrane together with erosion of the posterior canal wall.

A high resolution computed tomography (CT) scan of the auditory canal showed the cholesteatoma occupying the left epitympanic recess eroding the tegmen tympani superiorly and extending to the posterosuperior wall of the left external ear canal and into the mastoid process posteriorly (Figure 1c). A modified radical mastoidectomy with tympanoplasty type 3 was carried out without any complications. On follow up, the patient had remained well without any further complaints.

DISCUSSION

The most common symptom of cholesteatoma is persisting otorrhea that is difficult to treat especially when it is infected. Interestingly, pain is not a common symptom. However its presence may indicate secondary infection. Although a benign skin lesion, the tendency of cholesteatoma to grow and cause local destruction makes it a serious condition. Cholesteatoma can erode into the surrounding structures but the most common complication is hearing loss (ossicles and eighth cranial nerve). Vertigo (inner ear) or facial nerve palsy as the initial presentations of cholesteatoma are less common.
In conclusion in any patient with a history of persistent ear discharge and ear examination revealing the presence of aural polyps, an underlying cholesteatoma must be kept in mind. It is for that reason direct visualisation and full examination of the tympanic membrane after removing the debris and the polyp is crucial to exclude an underlying cholesteatoma.

**REFERENCES**