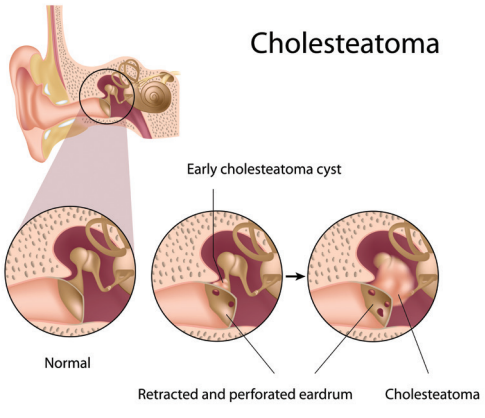
CHOLESTEATOMA

AN ABNORMAL SKIN GROWTH IN THE middle ear behind the eardrum is called cholesteatoma. Repeated infections and/or a tear or pulling inward of the eardrum can allow skin into the middle ear. Cholesteatomas often develop as cysts or pouches that shed layers of old skin, which build up inside the middle ear. Over time, the cholesteatoma can increase in size and destroy the surrounding delicate bones of the middle ear leading to hearing loss that surgery can often improve. Permanent hearing loss, dizziness, and facial muscle paralysis are rare, but can result from continued cholesteatoma growth.

The incidence of cholesteatomas is estimated to be approximately three in 100,000 children and 12 in 100,000 adults

WHAT CAUSES A CHOLESTEATOMA?

A cholesteatoma usually occurs because of poor eustachian tube function as well as infection in the middle ear. The eustachian tube conveys air from the back of the nose into the middle ear to equalize ear pressure ("clear the ears"). When the eustachian tubes work poorly, perhaps due to allergy, a cold, or sinusitis, the air in the middle ear is absorbed by the body, creating a partial vacuum in the ear. The vacuum pressure sucks in a pouch or sac by stretching the eardrum, especially areas weakened by previous infections. This can develop into a sac and become a cholesteatoma. A rare congenital form of cholesteatoma (one present at birth) can occur in the middle ear and elsewhere, such as in the nearby skull bones. However, the type of cholesteatoma associated with ear infections is most common.



HOW IS CHOLESTEATOMA TREATED?

An examination by an otolaryngologist—head and neck surgeon can confirm the presence of a cholesteatoma. Initial treatment may consist of a careful cleaning of the ear, antibiotics, and ear drops. Therapy aims to stop drainage in the ear by controlling the infection.

A large or complicated cholesteatoma usually requires surgical treatment to protect the patient from serious complications. Hearing and balance tests, and CT scans (3-D x-rays) of the ear may be necessary. These tests are performed to determine the hearing level in the ear and the extent of destruction the cholesteatoma has caused.

Surgery is performed under general anesthesia. The primary purpose of surgery is to remove the cholesteotoma to eliminate the infection and create a dry ear. A second surgery is sometimes necessary both to ensure that the cholesteatoma is gone as well as to attempt reconstruction of the damaged middle ear bones in an effort to improve hearing. In cases of severe ear destruction, reconstruction may not be possible. Facial nerve repair or procedures to control dizziness are rarely required. Reconstruction of the middle ear is not always possible in one operation; therefore, another operation may be performed six to 12 months later.

This operation will attempt to restore hearing and, at the same time, allow the surgeon to inspect the middle ear space and mastoid for residual cholesteatoma. In rare cases of serious infection, prolonged hospitalization for antibiotic treatment may be necessary. Time off from work is typically one to two weeks. After surgery, follow-up office visits are necessary to evaluate results and to check for recurrence. In cases requiring the creation of an open mastoidectomy cavity, office visits every few months are needed to clean out the mastoid cavity and prevent new infections. Some patients will need lifelong periodic ear examinations.

Cholesteatoma is a serious but treatable ear condition, which can be diagnosed only by medical examination. Bone erosion can cause the infection to spread into the surrounding areas, including the inner ear and brain. If untreated, deafness, brain abscess, meningitis, and, rarely, death can occur. ■

DR A B JOHN
Ear Nose & Throat Surgeon
MBBS, FRCS (Glasgow),
FAMS (ORL)

A.B. John Ear Nose & Throat
(ENT) Clinic & Surgery
3 Mount Elizabeth #15-10
Mount Elizabeth Medical Centre.
Tel: 6735 9654
www.sinonasal.com