

Otic Polyp

by Lester D. R. Thompson, MD

An otic, or aural, polyp is a benign proliferation of chronic inflammatory cells and granulation tissue that is usually lined with benign reactive epithelium. These lesions arise in response to a long-standing inflammatory or infectious process of the middle ear. Otic polyps are uncommon; when they do occur, they usually affect young patients. They are more common in males than in females.

While the middle ear is generally affected, an external auditory canal lesion may also form if the tympanic membrane is perforated. Patients typically present with otorrhea, conductive hearing loss, otalgia, bleeding, and/or a sensation of a mass. Surgery is generally employed only after antibiotic therapy has failed and the disease persists. Concurrent cholesteatoma would also require surgery.

Patients usually present with a solitary, polypoid, reddish, friable mass. The entire specimen is usually processed in order to rule out a concurrent cholesteatoma. Pathologic examination will reveal a granulation-type tissue with edematous stroma and a high density of capillaries (figure 1) associated with chronic inflammatory cells, including plasma cells, lymphocytes, histiocytes, and eosinophils (figure 2).

Figure 1. Metaplastic squamous mucosa lines this polyp, which covers a stroma filled with inflammatory cells as part of the granulation-type tissue reaction.

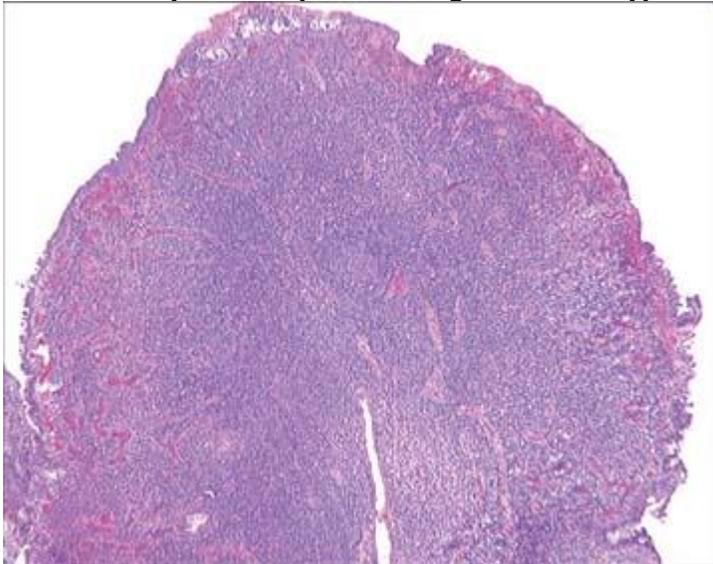
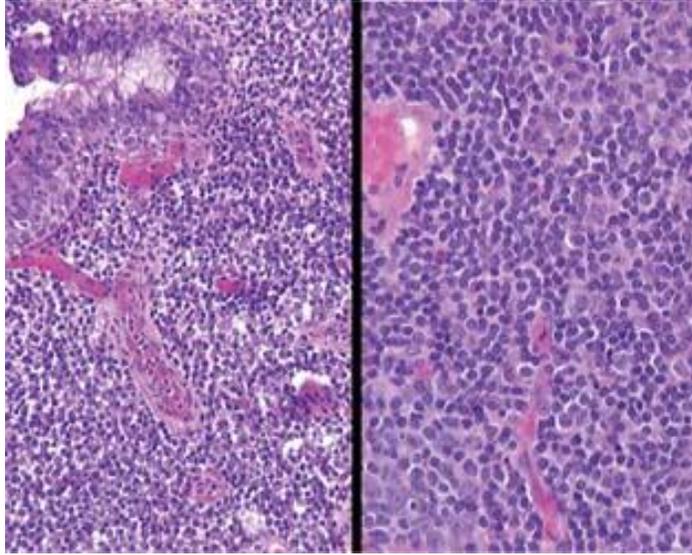


Figure 2. Left: Glandular epithelium is subtended by a sea of plasma cells and lymphocytes. Right: High-power view shows the mixed inflammatory cell infiltrate.



Plasma cells with Russell bodies and Mott cell formation may be present. Cholesterol clefts and multinucleated giant cells may be seen, along with occasional calcifications. "Tunnel clusters" representing glandular inclusions of the surface epithelium within the stroma may be seen in long-standing cases. If epithelium is present, it is often stratified squamous epithelium with a prominent granular cell layer, although a respiratory epithelium may be seen instead (figure 2).

In view of the high number of plasma cells, an extramedullary plasmacytoma may need to be ruled out; the "small round blue cell" appearance may also bring rhabdomyosarcoma into the differential diagnosis. In some cases, a neuroendocrine adenoma of the middle ear may enter into the differential diagnosis in cases that show glandular inclusions.

Suggested reading

1. Gliklich RE, Cunningham MJ, Eavey RD. The cause of aural polyps in children. Arch Otolaryngol Head Neck Surg 1993; 119 (6): 669-71.
2. Nair S, Watts S, Flood L. Fibroblast growth factor receptor expression in aural polyps: Predictor of cholesteatoma? J Laryngol Otol 2004; 118 (5): 338-42.
3. Prasannaraj T, De NS, Narasimhan I. Aural polyps: Safe or unsafe disease? Am J Otolaryngol 2003; 24 (3): 155-8.

From the Department of Pathology, Woodland Hills Medical Center, Southern California Permanente Medical Group, Woodland Hills, Calif.

Ear Nose Throat J. 2012 November;91(11):474-475.