



Symptoms: Bleeding From the Ear

By Hamid R. Djalilian, MD

A patient bleeding from his ear was seen in the office a week earlier for a routine audiogram and a hearing aid adjustment. He thinks something was damaged when the earphones were inserted. The patient's chart showed recurrent otitis externa for the past five years since obtaining hearing aids. His medical history is significant for hypertension and diabetes.

The patient used to work in a factory where he used ear plugs. He would often use cotton swabs to clean his ears after work and had frequent otitis externa episodes. He had not had any previous ear surgery, but has a remote history of prostate cancer. Multiple attempts at changing the fitting, venting, and other things have been made, but he continues to experience problems with drainage. The patient's ear, seen through an otoscope, showed blood in the ear canal. (Figure 1.)

What is your diagnosis? See p. 10.

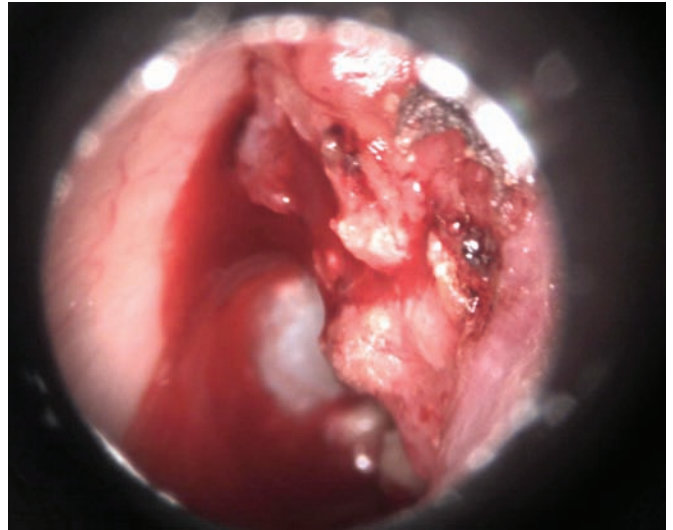


Figure 1. *Blood in the patient's ear canal.*

Diagnosis: Squamous Cell Carcinoma

By Hamid R. Djalilian, MD

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Bleeding from the ear can be scary and is often believed to be a sign of death. We routinely see characters in primetime dramas sustain some sort of injury, and the camera zooms in on blood flowing from an ear, usually indicating that the character has died. The average patient panics at the sight of blood from the ear, but we professionals have to start thinking about the differential diagnosis.

A number of things should come to mind when blood is in the ear canal. The first is otitis media if the patient has a history of a pressure equalization tube or perforation. The medial layer of the tympanic membrane in otitis media hypertrophies, leading to a proliferation of capillaries, which are fragile. Occasionally, inflamed tissue forms granulation tissue, which is vascularized collagenous tissue produced in response to inflammation or for repair. The fragile capillaries of the granulation tissue can occasionally break and cause bleeding. It is not troublesome, even though this significantly alarms patients and their families.

Bleeding from the ear because of head trauma is associated with a temporal bone fracture, and most patients do not die from this. The type of temporal bone fracture related to bleeding from the ear is a longitudinal fracture, which is associated with trauma from the side (lateral temporal trauma). These fractures can cause bleeding in the ear canal from a skin laceration, but are not linked to sensorineural hearing loss.

The patient had a biopsy of the mass, which was found to be consistent with squamous cell carcinoma. Squamous cell carcinoma is the most common type of carcinoma affecting the ear canal. It typically occurs in chronic irritation from infections or from extension of a squamous cell carcinoma of the auricle, which extends into the ear canal.

A patient who is bleeding from the ear, and has a mass needs a consultation with an otolaryngologist or neurotologist. The patient will require imaging, most commonly a CT of temporal bones, or an MRI of internal auditory canals and a biopsy. (Figure 2.) Patients with chronic otitis externa who do not respond to therapy using multiple courses of antibiotic drops should be evaluated for squamous cell carcinoma.

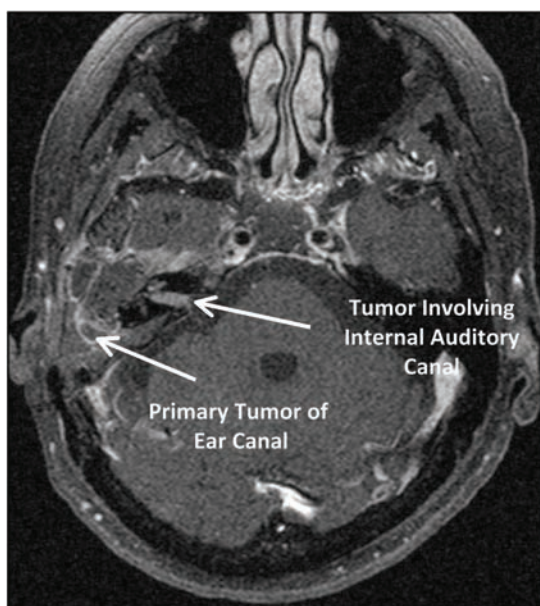


Figure 2. A T1-postgadolinium axial MRI of the internal auditory canal with squamous cell carcinoma of the ear canal. The MRI shows involvement of the internal auditory canal with a tumor, indicating invasion of the facial nerve and intracranial extension.

Congenital fissures in the ear canal cause squamous cell carcinoma to spread anteriorly into the temporomandibular joint easily. These tumors, from there, can spread to the lymph nodes in the parotid gland and eventually to the lymph nodes in the neck. Treatment requires a lateral temporal bone resection, meaning resection of the entire ear canal, including the tympanic membrane, malleus, and incus. An adjunctive removal of the parotid gland and neck lymph nodes may be necessary for treatment. Facial nerve paralysis in these patients is an ominous sign indicating facial nerve involvement near the squamous cell carcinoma. This requires resection and nerve replacement.

Prognosis is good with early disease that has not spread from the ear canal, with more than 90 percent survival at five years.

Tumor spread beyond the ear canal into the mastoid, middle ear, or the parotid gland adversely affects the prognosis substantially. Other masses in the ear canal include granulation tissue, canal cholesteatoma, glomus tumor, and primary tumors of cerumen glands (e.g., ceruminoma, adenoid cystic carcinoma). Treatment of these tumors depends on their extent, their age, and the patient's medical condition. ■

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