Dr. William Detar:

Hello and welcome to the On-Call Consults in Less Than 10 minutes Series on ENT in a nutshell, a complement to Headmirror's Online Survival Guide. I'm your host, Will Detar, and today we are joined by Dr. Matt Carlson, a board certified neurotologist. In this episode, we will cover perichondritis and auricular hematoma and abscess. Let's jump right in.

Both auricular chondritis and auricular hematomas are usually seen following trauma to the auricle, such as with cartilage piercings, lacerations, contact sports, and occasionally bug bites. Signs include scaling, loss of natural folds of the pinna, erythema, fluctuance, swelling, and weeping. Early treatment is necessary as fluid collections between cartilage and perichondrium can lead to cartilage ischemia and a resultant necrosis and scarring, leaving the patient with cauliflower deformity.

Can you tell us about the differential diagnosis, Dr. Carlson?

Dr. Matthew Carlson:

Certainly. There's many conditions with overlapping features with auricular perichondritis, hematoma and abscess. These include periauricular cellulitis, relapsing polychondritis, otitis externa, primary dermatologic conditions affecting the pinna, such as eczema and psoriasis, contact dermatitis, sunburn or thermal injury, frostbite, pressure ulcers, cutaneous malignancy and tophaceous gout.

Dr. William Detar:

What are the risk factors or some of the predisposing conditions?

Dr. Matthew Carlson:

Generally, any condition that leads to excessive trauma to the ears or repetitive trauma increases the risk of acquiring perichondritis, abscess or hematoma. So wrestlers and rugby players are at highest risk. People who've had recent cartilage piercing, patients on blood thinners, and then people with autoimmune conditions, in particular, relapsing polychondritis.

Dr. William Detar:

And what history should we focus on for these patients?

Dr. Matthew Carlson:

Want to ask about the timing and the chronicity, how long it's been present, any preceding trauma, even minor trauma, such as bug bites, participation in sports or recent use of restrictive helmet or head gear. associated ear symptoms, including tinnitus, hearing loss, otorrhea, vertigo, ear history including recurrent infections or any ear surgery. Then you want to ask for risk factors including diabetes, being on blood thinners, any bleeding disorders, immunosuppression, immunocompromised status. You want to ask about patients who have a history suggestive of an autoimmune condition such as relapsing polychondritis.

Dr. William Detar:

What key supplies do you recommend we bring when seeing these consults?

Dr. Matthew Carlson:

In general, your examination is going to be primarily focused on the external ear, but it is helpful to bring an otoscope to see how medial the erythema extends. This is an important feature. Typically, conditions that only are isolated to the cartilage of the pinna will spare the lobule and will not extend very medially in the ear canal. So conditions like relapsing polychondritis characteristically spare the fatty lobule and don't extend medially down the ear canal. You'll want bring Frazier suctions and cerumen loops to clean out the ear canal. If you think you're going to need to perform an I&D on a hematoma or auricular abscess, you want to bring a culture swab, local anesthetic for injection, 15 blade, saline flush, bolster dressing and sutures, a needle driver and a sterile tray.

Dr. William Detar:

Can you tell us about the physical exam for these patients?

Dr. Matthew Carlson:

You'll be largely looking at their external ear and surrounding tissue. We'll perform an otoscopic examination of the ear canal and middle ear. If they report any hearing loss, we can do a hearing assessment using a 512 Hertz tuning fork to assess for sensorineural or conductive hearing loss. We look at the external ear and the area of erythema or involvement. If you're concerned about a cellulitis, you may be able to mark the margins of the redness with a pen to see if it changes. You can assess for upper neck and parotid swelling or lymphadenopathy.

Again, as previously discussed, it's helpful to evaluate for sparing of the lobule. Cellulitis typically involves all of the pinna, including the lobule. However, autoimmune conditions that are isolated to the cartilage will characteristically spare the fatty lobule and medial ear canal. You'll want to perform a cranial nerve exam with attention to the facial nerve, particularly given the overlapping presentation that might occur with Ramsay-Hunt syndrome. And then you'll want to examine the external nose for nasal deformity, as well as septum for involvement of the septum, which may be suggestive of an autoimmune condition, including relapsing polychondritis.

Dr. William Detar:

What diagnostic workup do you order for these patients, just in the acute setting?

Dr. Matthew Carlson:

Typically, no imaging is generally indicated unless there's concern for malignant otitis externa, mastoiditis or foreign body, et cetera. And typically, cultures aren't obtained either unless you have a severe infection, recurrent disease in an immunosuppressed or a patient who's not fully immunocompetent. In the acute setting, labs are generally reserved for high-risk patients or those with atypical symptoms. Generally, the workup for a potential autoimmune etiology is typically performed electively in the outpatient setting.

Dr. William Detar:

Can you tell us about the treatment, both medical therapy as well as surgical?

Dr. Matthew Carlson:

Absolutely. In the acute setting, fluoroquinolone antibiotic therapy is typically prescribed for treatment of perichondritis or after drainage of an auricular hematoma or abscess. Patients should be counseled about the associated risks of tendinopathy and arthropathy and should stop the antibiotic if they

develop joint pain or muscle pain. This should be particularly approached with caution in young children or active adults where the risk of tendon rupture may be elevated. Oral steroids can be considered, particularly in cases where there's an underlying autoimmune etiology that's suspected. If the patient had a recent ear piercing that's suspected to be the cause for the infection or the development of the condition, you can consider removing the piercing, if it's still present, to aid in recovery.

With regard to surgical treatment, drainage of the fluid collection, if present, using needle aspiration or small stab incision with fluid or clot evacuation and flushing is advised. Consider a bolster placement or quilting sutures to approximate perichondrium and cartilage and bolster with dental rolls or Xeroform with Prolene sutures.

Dr. William Detar:

What disposition and followup do you recommend for this condition?

Dr. Matthew Carlson:

Most patients are managed on an outpatient basis unless they're immunocompromised or presenting with a more aggressive disease course. Generally, close followup within a week is needed to ensure there is no reaccumulation of drained fluid or progression of the underlying condition. Discuss return precautions with them, including worsening infection, abscess formation, hematoma reaccumulation, et cetera. If the patient's diabetic, tight glucose control is important. And then of course, as previously alluded to, you'll counsel regarding the risks of fluoroquinolones and when to stop taking a fluoroquinolone and the need to contact us for an alternate therapy.

Dr. William Detar:

That concludes our perichondritis and auricular hematoma and abscess episode for On-Call Consults in Less Than 10 Minutes. We appreciate you joining us, and thank you, Dr. Carlson.