

Comprehensive Skull Base Program • 214-645-3400 • utswmedicine.org/skullbase

GLOMUS JUGULARE

Background:

Glomus jugulare (jugular foramen paraganglioma, temporal bone paraganglioma, glomus tumor) is a slow growing vascular tumor located at the skull base. It is the most common tumor of the temporal bone. A patient with a glomus jugulare often hears their own heart beat in the affected ear (pulsatile tinnitus). A glomus jugulare can also cause difficulty swallowing, hoarseness, hearing loss, slurred speech and facial weakness. Rarely, these tumors can present with bleeding from the ear or ear pain.

Diagnosis:

A glomus jugulare can often be diagnosed with a simple ear exam using a handheld otoscope or a microscope. Glomus tumors appear as a red to purple mass behind the ear drum. Listening to the ear with a stethoscope will often reveal a beating sound synchronous to the patient's heart beat. A detailed examination of the cranial nerves including the voice box, tongue movement, shoulder movement, facial movement and hearing will often reveal subtle or obvious dysfunction.

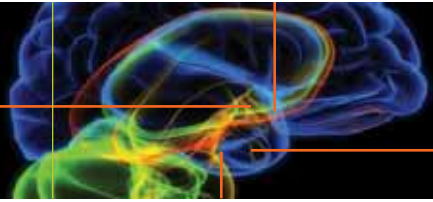
Glomus tympanicum vs. glomus jugulare:

Glomus tympanicum, another common tumor affecting the ear, can have an identical appearance to a glomus jugulare tumor. Glomus jugulare tumors arise on the wall of the jugular bulb whereas a glomus tympanicum arises in the middle ear space. Tympanicum and jugulare tumors are both paragangliomas and appear identical on pathologic examination. Distinguishing these tumors can typically be done with a detailed ear microscope exam or with magnetic resonance imaging (MRI) or computed tomography (CT). Distinguishing these tumors is critical as the management is different.

Management:

The management of glomus jugulare tumors depends on a number of factors including age, overall health status, presenting symptoms, tumor size, and patient preference. Treatment options include observation, partial or total surgical removal, external beam radiation, stereotactic radiation therapy, or a combination of surgery and conventional or stereotactic radiation therapy. Observation with serial imaging studies (CT or MRI) is often recommended in patients with advanced age, multiple health issues, or according to patient preference. Surgical removal is typically recommended in younger patients. Partial excision can be used when the lower cranial nerves are intact (swallowing function, shoulder function, tongue movement, voice) whereas total excision can be attempted when the lower cranial nerves are nonfunctional.

Radiation treatment can be used as primary therapy or following recurrence or planned partial excision. Conventional radiation therapy entails daily treatment five days a week for several weeks. Stereotactic radiation may be delivered in a one day treatment (Gamma Knife) or can be on a hypofractionated schedule over three to five days (Cyber knife). No matter what treatment is selected follow up imaging with MRI is recommended for all patients.



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Postoperative issues:

Hoarseness whether from the tumor or from treatment can often be improved with speech therapy, vocal cord injection therapy or with surgical repositioning of the vocal cord (thyroplasty). Shoulder pain from spinal accessory nerve dysfunction often responds well to physical therapy. Hearing loss from these tumors can sometimes be improved with surgical excision. Several types of hearing aids may help if hearing loss is still present after treatment. Swallowing problems can improve with speech therapy. Pulsatile tinnitus can improve shortly after surgical excision and may improve months or years after radiation therapy.

Making an Appointment:

Primary care physicians typically refer new patients to UT Southwestern Medical Center. If an individual does not need a referral, they may make an appointment through the following options:

- Complete an online Request an Appointment Form.
- Call 214-645-6455 or 866-645-6455 (toll free).

Physicians referring a patient may call our dedicated Skull Base Physician Referral line at 214-645-3400 or

- Complete an online Physician Referral Form.
- Call 866-645-5455 (toll free).

After-Hours Care:

Current UT Southwestern patients who need urgent care outside of normal business hours may call 214-648-3111 to leave a page for our on-call physician.

Emergency Care:

If an individual is experiencing a life-threatening problem, they should call 911 immediately or go to the nearest emergency room. UT Southwestern's emergency room is located at University Hospital-St Paul, 5909 Harry Hines Blvd. (corner of Harry Hines Boulevard and Inwood Road).

Website: www.utsouthwestern.org/skullbase