

VIDEO CASE SOLUTION

Glomus Jugulare

Last month's case presented a 41-year-old woman with a one-year history of tinnitus and left otalgia.

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Read the case description and watch the video online at <http://practicalneurology.com/videos.xxxx>

The most likely cause of the left tongue atrophy in this case is:

1. Carotid dissection
2. Parsonage turner syndrome
3. Cavernous sinus pathology
4. Retroorbital pathology
5. Glomus Jugulare

GLOMUS JUGULARE

- Hearing impairment, vocal cord paralysis, tongue deviation, and facial pain suggest involvement of the 8th, 10th, 12th, and 5th cranial nerves. Among the mentioned choices, glomus jugulare is the only one that can be that extensive.
- Glomus Jugulare is a neuroendocrine neoplasm. 97% are benign.
- It originates from paraganglia in chromaffin negative glomus cells that are derived from embryonic neural crest. 75% are sporadic, asymptomatic or causes painless masses.
- Common sites are head and neck and mostly it originates in the middle ear and spreads to the jugular foramen and beyond leading to multiple compressive cranial neuropathies.
- It is a slowly evolving tumor that appears at age 40-70 years
- Symptoms usually start with tinnitus, conductive hearing loss, and as it progresses it leads to vertigo, nystagmus, and facial palsy.
- Jugular foramen symptoms:
 - 9th and 10th: dysphonia, dysphagia,
 - 11th: weak trapezius and sternocleidomastoid muscle.
 - 12th: tongue hemiatrophy
- Carotid canal: Horner's syndrome
- 5th and 6th cranial nerves symptoms indicate inoperability.
- Radiation surgery usually leads to a cure or long term control
- Carotid dissection may lead to hypoglossal palsy but does not extend to the abducens or trigeminal nerve
- Cavernous Sinus pathology may lead to involvement of the 3-5th cranial nerves but does not extend to the hypoglossal nerve
- Retroorbital pathology does not go that far either.
- Parsonage turner may cause hypoglossal neuropathy but does not affect the rest of the cranial nerves.