Otalgia: An Early Isolated Symptom of Glomus Tympanicum - A Case Report and Targeted Review

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Introduction

Glomus tympanicum tumors are benign vascular paragangliomas arising from paraganglionic tissue of the middle ear and represent the most common primary middle ear tumor. They classically present with pulsatile tinnitus or conductive hearing loss. Otalgia is rarely emphasized as an early or isolated presenting symptom, which may contribute to delayed diagnosis and disease progression. We present a case of glomus tympanicum presenting with isolated unilateral otalgia and perform a targeted review evaluating the frequency of otalgia at presentation.

Case Presentation

A 73-year-old woman presented with persistent right-sided otalgia for 10 months without pulsatile tinnitus, hearing loss and otorrhea. Otoscopy revealed a faint reddish hue behind an intact tympanic membrane. Audiometry demonstrated mild bilateral sensorineural hearing loss.

Imaging

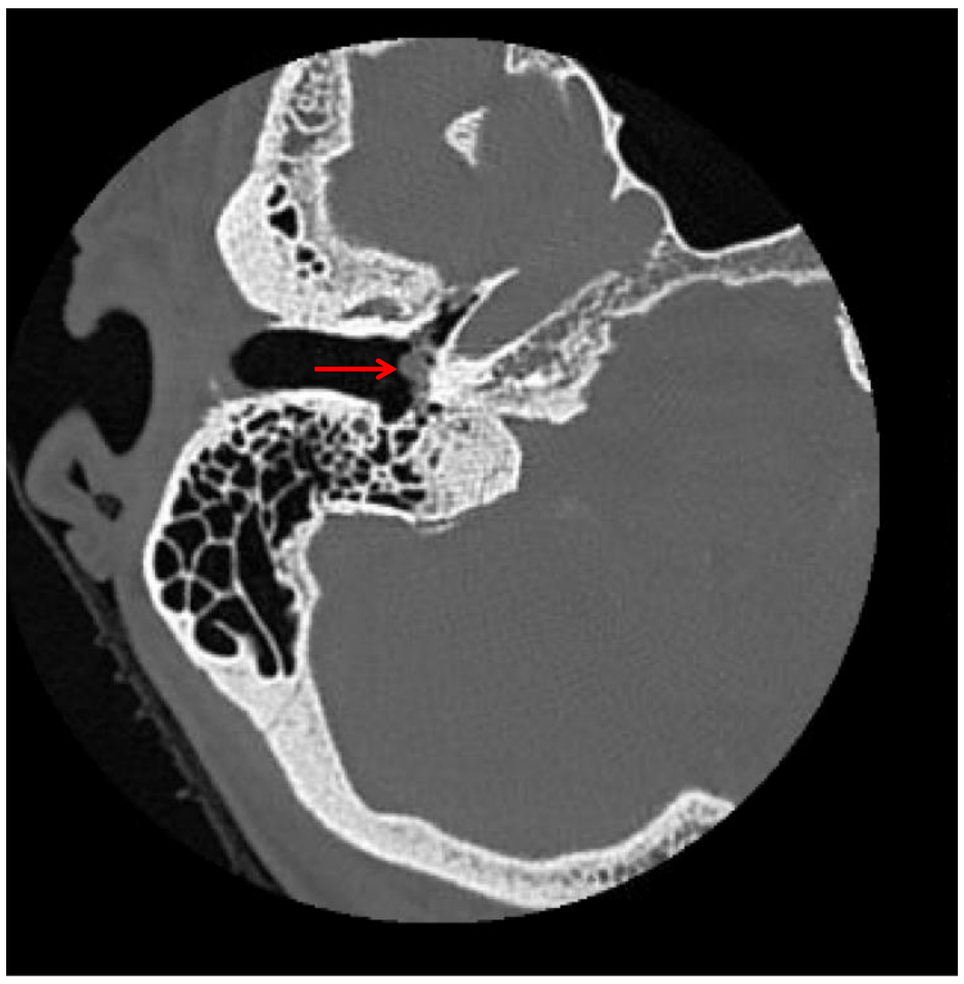

Figure 1. High-resolution CT of the temporal bone demonstrated a 3 × 3 mm soft-tissue lesion arising from the promontory, consistent with a glomus tympanicum tumor.

Discussion

The patient underwent a right endaural approach and tumor removal with intraoperative facial nerve monitoring. Glomus tympanicum–associated otalgia is believed to result from irritation of Jacobson's nerve, the tympanic branch of the glossopharyngeal nerve, which provides sensory innervation to the middle ear mucosa. Removal of the tumor eliminated this neural irritation, explaining the complete resolution of pain at six-month follow-up.

Methods

PubMed and bibliographic searches were conducted to identify case reports, case series, and retrospective studies describing presenting symptoms of glomus tympanicum tumors. Studies were included if presenting symptom data for confirmed tumors were reported and excluded if tumor classification was unclear or symptom reporting was incomplete. Data were extracted to determine the frequency of otalgia at presentation. No formal quality assessment was performed due to the descriptive nature of the review.

Results

Fourteen studies met inclusion criteria, comprising 777 patients with glomus tympanicum tumors. Otalgia was reported in 56 patients (7.2%), including 2 cases of isolated otalgia as the sole presenting symptom (0.26%).These findings suggest otalgia is uncommon but clinically meaningful and may precede classic symptoms.

Table 1. Frequency of Otalgia in Glomus Tympanicum.

Studies included	14
Total patients	777
Otalgia present	56 (7.2%)
Isolated Otalgia	2 (.26%)

Conclusion

Otalgia may represent an underrecognized presenting symptom of glomus tympanicum tumors, even in the absence of more classic signs such as pulsatile tinnitus or hearing loss. Greater awareness of this subtle clinical feature could facilitate earlier detection and management. This case underscores the importance of considering Glomus Tympanicum tumors in the differential diagnosis of unexplained unilateral otalgia, particularly when subtle otoscopic or imaging findings suggest a vascular lesion.

References

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