

Teaching NeuroImages: Collet-Sicard syndrome and hearing loss with glomus jugulotympanicum

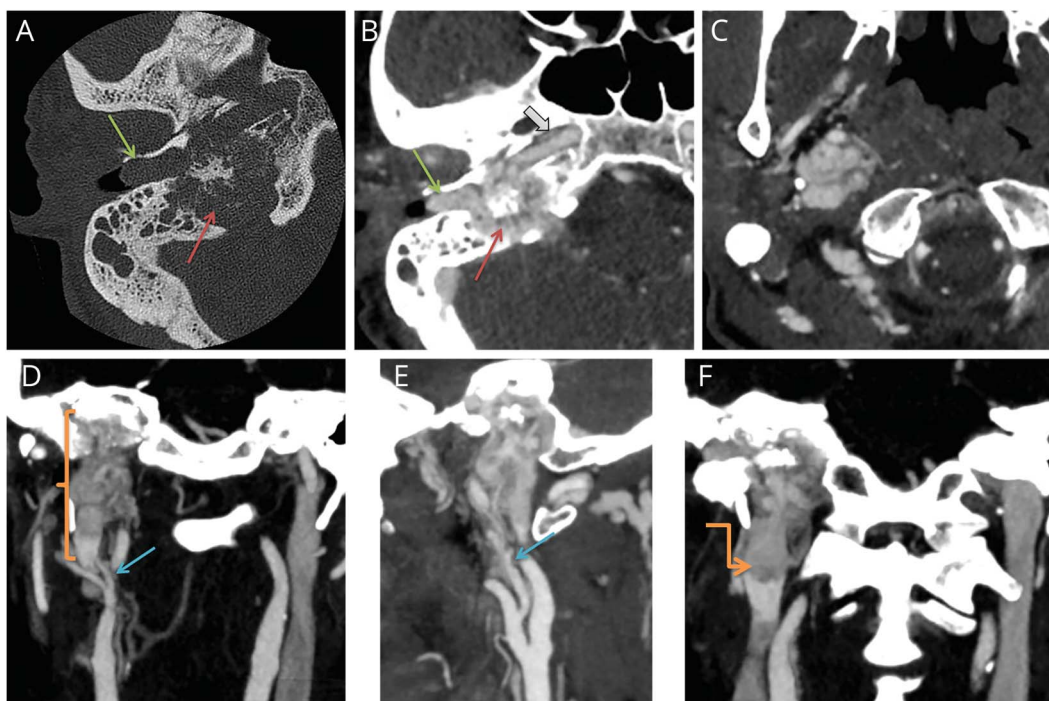
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Figure 1 CT head/neck



Axial temporal bone study (A) shows expansile lytic right jugular fossa lesion (red arrow) extending into external ear canal (green arrow), contrast-enhancing (B), extending within carotid sheath, displacing internal carotid artery anteriorly (C). Contrast-enhanced CT neck (D, coronal) demonstrates craniocaudal extension along carotid space (orange bracket), hypertrophied external carotid feeding branches (blue arrow, E: sagittal), and internal jugular vein invasion (orange arrow, F: coronal).

A 56-year-old woman presented with headache, vomiting for 3 days, and right hearing loss, tinnitus, and dysphagia over 3 months. Examination showed decreased right palate elevation and atrophy of right sternocleidomastoid, trapezius, and tongue with rightward tongue deviation, indicating Collet-Sicard syndrome (involving cranial nerves IX–XII in jugular foramen and hypoglossal canal).¹ Hearing loss suggested auditory canal extension. Imaging showed a right skull base mass in keeping with glomus tumor (figures 1 and 2). Given surgical risks, radical radiotherapy was performed, arresting tumor growth. Glomus jugulare tumors, hypervascular paragangliomas, are the most common tumors in the jugular foramen and can extend into the middle ear (jugulotympanicum).²

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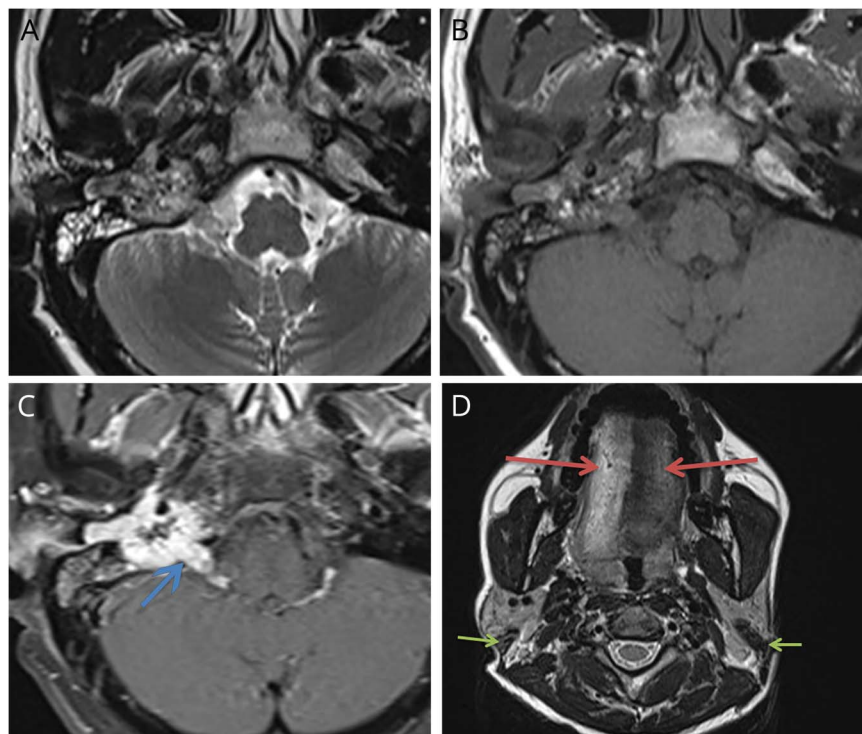
Author contributions

A. Ganesh: concept, acquisition of data, and writing the initial drafts of the manuscript. Z. Assis: acquisition of data and critical revision of manuscript for intellectual content. D. Fok: acquisition of data and critical revision of manuscript for intellectual content. J.G. Cairncross: concept and critical revision of manuscript for intellectual content. S.B. Bal: concept and critical revision of manuscript

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Figure 2 MRI head/neck



Axial T2-weighted (A) and T1-weighted (B) MRI show right jugular fossa lesion with salt-and-pepper appearance. Postcontrast T1-weighted MRI (C) shows enhancement and extension into cerebello-medullary angle through widened hypoglossal canal (blue arrow). Axial T2-weighted MRI (D) shows fatty degeneration of right tongue (red arrows) and atrophy of right sternocleidomastoid (green arrows).

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