PHOTO QUIZ

What is your diagnosis?

A37-year-old woman was referred with a painless mass in the right posterior neck space, which had gradually appeared in a one-year period.

There were no other associated symptoms except mild numbness of the area surrounding the mentioned space.

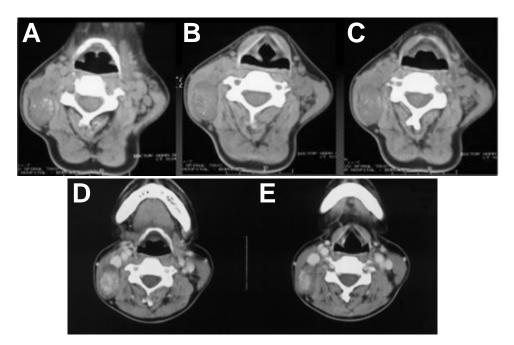


Fig. 1. A-E. Contrast and non-contrast CT showing a partially heterogeneous enhancing mass with multiple calcified foci in the right posterior neck space which have displaced the vessels anteriorly. No surrounding fat stranding is evident.

What is your diagnosis?

Iran J Radiol 2009, 6(4) 257

Diagnosis: <u>Accessory Nerve Schwannoma</u> <u>Containing Multiple Calcified Foci</u>

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Vestibular schwannomas or so called "acoustic neuromas" are the most common cranial nerve schwannomas, followed by trigeminal and facial schwannomas and then glossopharyngeal, vagus and spinal accessory nerve schwannomas. Schwannomas involving the oculomotor, trochlear, abducens and hypoglossal nerves are the rarest types.¹⁻³

The clinical presentation of cranial nerve XI schwannomas relates to their location and extent: intracranial, jugular foramen, upper neck and cervical spine.³⁻⁴

MRI with gadolinium-based contrast medium is the technique of choice for cranial nerve schwannoma imaging and CT is ideal for evaluating the secondary effects on the neural foramina.

Calcified accessory schwannomas are rare. These lesions are most frequently encountered in the third to sixth decades of life and are slightly more common in women.⁵

Our case was a 37-year-old woman with a painless mass in the right posterior neck space gradually appearing during one year. Examination confirmed a 40×25×18 mm firm, mobile, non tender lump in the right posterior neck space.

Ultrasonography exam revealed a 40×30×20 mm

hypo-echoic mass with multiple calcified foci, in which color Doppler detected mild vascularity. On contrast-enhanced CT scan a 45×30×18 mm heterogeneous mass with multiple calcified foci (according to non-contrast cuts) was found in the posterior part of the neck which displaced the vessels anteriorly. No surrounding fat stranding or any other gross pathology was evident in other neck spaces.

According to the above findings, the differential diagnoses were: lymphadenopathy due to TB or of less possibility; fungal infections, hemangioma, lymphangioma or schwannoma.

Mass resection and histopathology revealed schwannoma of the accessory nerve with unusual calcification. No evidence of recurrence was detected after one year.

The interesting point of this case was the unusual manifestation of accessory nerve schwannoma not only because of its rarity but also as a result of the unusual calcification and symptomless appearance.

References

- Cantore G, Ciapetta P, Raco A, Lunardi P. Orbital schwannomas: report of nine cases and review of literature. Neurosurgery 1986;19(4):583–8.
- Nadkarni T, Goel A. A trigeminal neurinoma involving the lacrimal nerve: case report. Br J Neurosurg 1999;13(1):75–6.
- Eldevik OP, Gabrielsen TO, Jacobsen EA. Imaging findings in Schwannomas of the jugular foramen. AJNR Am J Neuroradiol 2000 Jun-Jul;21(6):1139-44.
- Jayaraman M, Davis LM. Schwannoma, cranial nerve. E med [serial online] 2007 Jul. Available from: http://emedicine.medscape.com/article/336141-overview. Accessed February 10, 2010.
- Ahmadi-Yazdi C, Habashi S. Schwannoma of accessory nerve: A Case Report. J Otorhinolaryngol [serial online] 2006;4(2). Available at: http://www.ispub.com/journal/the_internet_journal_of_otorhinolary ngology/volume_4_number_2_33/article/schwannoma_of_accessory_ nerve_a_case_report.html. Accessed August 16, 2009.

258 Iran J Radiol 2009, 6(4)