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RESEARCH ARTICLE

Giant Ancient Schwannoma of Neck

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Ancient schwannoma of the neck region is a rare benign neoplasm derived from neural crest cells and is usually solitary only a few ancient schwannoma have been reported in different locations in the neck region. We are reporting this case because of its size, clinical presentation, classic CT finding and its type. Literature search in English showed, it is the largest size peripheral ancient schwannoma reported till now.

Introduction

Ancient schwannoma is a type of long standing tumor showing all histopathological features along with sites of degeneration and calcification. They are solitary tumor originating from the neural crest. Head and neck region is the rare site of its presentation. Ignorance to the mass leads to malignant changes. It is a challenge to the pathologist also as it is commonly confused with malignant mesenchymal neoplasm. CT scan is important to know the physical property, calcification and degeneration inside the tumor.

Case Report: A 42 year male presented with single swelling on the left side of the neck since last 4 years. It was slowly progressive and attains present size since last 1 yr. There was no history of smoking or any other addiction. There was no history of trauma, dysphasia, change in voice, difficulty in respiration, headache, vision loss, vertigo and weakness in the limbs. On inspection about 12cmx16cm size swelling was present on the left size of the neck with a visible pulsation on the surface (Figure1). There was no venous engorgement on the surface. It was not moving on deglution or protrusion of tongue. Lower limit of the swelling could not be make out even on palpation. A firm to hard mass was present on the left side without any mobility in either direction. Pulsation on the surface synchronized with the contra lateral carotid pulsation. It was extending superiorly from the hyoid bone to the thoracic inlet inferiorly, medially from the para tracheal region to the posterior neck triangle latterly. It was

displacing common carotid artery antero-medialy. There was no neurological deficit. Endolaryngeal examination showed bilateral moving cords with right sided laryngeal shift. CT scan confirms the clinical finding with a size of multiseptate cystic lesion measuring 7.2cm (AP), 11.4cm (mediolateral), 14.4 cm (SI) extending inferiorly up to superior mediastinum and causing splaying of common carotid and subclavian artery and markedly compressing internal jugular vein with invasion of prevertebral space. Specks of coarse calcification are seen in its wall (Figure2). Routine investigations were within normal limits. Features are in favor of Ancient schwanoma because of area of degeneration and calcification in it. Swelling was approached by a modified classical Crile's incision with only vertical limb of incision was opened. Common Carotid artery and Vagus nerve was dissected out by blunt dissection (Figure1). The tumor was removed all around by blunt dissection.Post operative histopathology suggested encapsulated mass mainly predominated by Antoni B area. There was presence of spindle to oval shape cells arranged loosely and haphazardly in the loose connective tissue. Cystic degeneration, calcification,hyalization and many thrombosed blood vessels were appreciated. Features were in Favour of Ancient Schwannoma . Postoperatively no neural deficit was found. Patient is doing well in the follow up of 8 months without any neurological deficit.

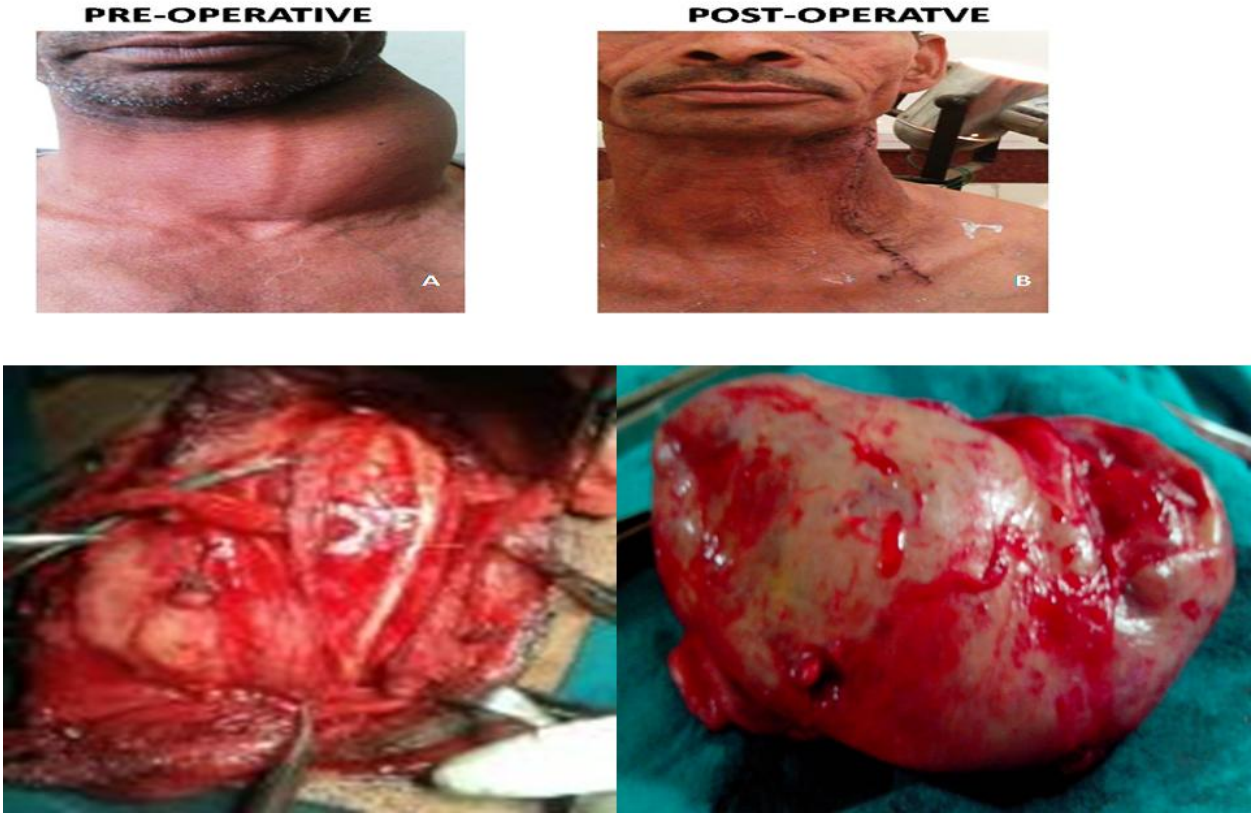

Figure1 A, B: Preoperative, Postoperative and intraoperative l Photograph

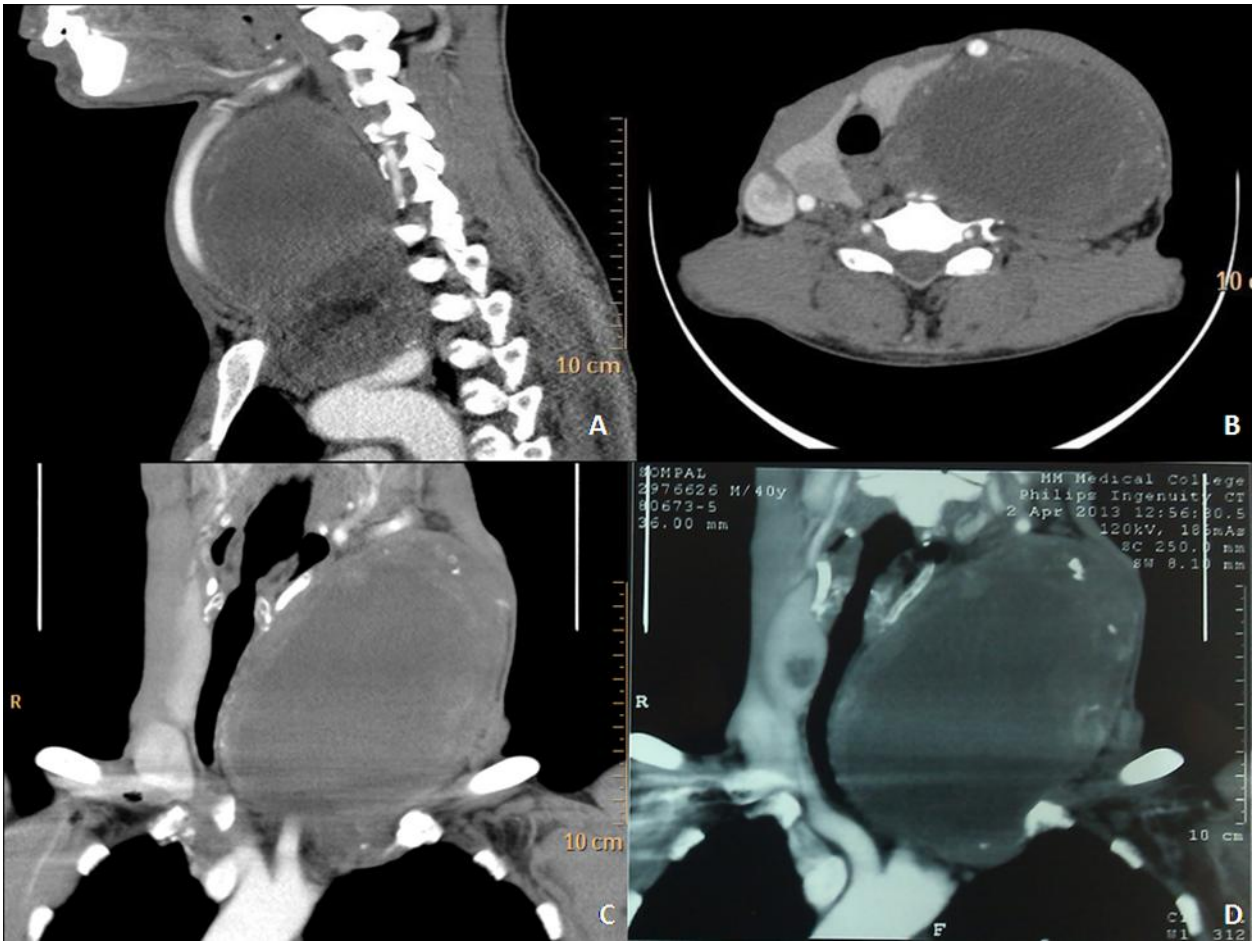

Figure2: A, B, C, D CT scan showing the extent of the tumor

Discussion:

Ackerman and Taylor found that the schwannoma presented with clear areas of hypo cellular tissues and attributed the changes to the long standing degenerative changes. [1] They coined the term "ancient" schwannoma for such type of benign neurogenic tumor. Schwannoma is a soft tissue tumor with slow progression. Schwannomas are rare encapsulated tumors,which are commonly located in peripheral nerves oflimbs, head and neck [2]. Clinically presents with a solitary mass in the Head and neck region. This makes, tumor to present different clinically as well as in its surgical outcome as in our case.. Schwannomas takes origin from the Schwann cells of the nerve sheath [3].Schwann cells are neural crest-derived glial cells that are responsible for providing myelin insulation to peripheral nervous system axons [4]. Histopathologicaly schwanoma is characterized by presence of AntoniA and B cells [5].

Other features like cystic degeneration and calcification represents degenerated Antoni A cells and are characterstic feature of Ancient schwanoma as in our case [6]. Neurofibroma may present similar in clinical and radiological presentation. Only histopathology can differentiate it [7]. If FNAC findings combined with the findings of CT and MRI than an accurate diagnosis can be made [8]. Depending upon the site and size of the tumor different opinion about the treatment exists. It includes observation, complete tumor excision, and intracapsular enucleation A proximity to the vital structure makes it vulnerable for the complications.

References:

1. Ackerman LV, Taylor FH. Neurogenous tumors within the thorax; a clinicopathologicalevaluation of forty-eight cases. Cancer. 1951 Jul;4(4):669-91.
2. Cury J, Coelho RF, Srougi M: **Retroperitoneal schwannoma: case series and literature review.***Clinics* 2007, **62(3):**359-362.
3. Schindler OS, Dixon JH, Case P: **Retroperitoneal giant schwannomas: report on two Cases and review of the literature.** *J OrthopSurg*2002,**10(1):**77-84.
4. M. A. Shugar, W. W. Montgomery, and E. J. Reardon, "Management of paranasal sinus schwannomas," Annals of Otology, Rhinology and Laryngology, vol. 91, no. 1, pp. 65–69, 1982. View at Scopus
5. Wippold FJ II, Lubner M, Perrin RJ, Lammle M, Perry A: **Neuropathology for the neuroradiologist: Antoni A and Antoni B tissue patterns.** *AJNR Am J Neuroradiol*2007,**28(9):**1633-1638.
6. Liu YW, Chiu HH, Huang CC, TuCA: **Retroperitoneal schwannomamimicking a psoasabscess.***ClinGastroenterolHepatol*2007,**5(9):**A32
7. Winn HR: *Youmans Neurological Surgery* 4th edition. Philadelphia: WB Saunders; 1997.
8. Maitra A, Ashfaq R, Saboorian MH, Lindberg G, Gokaslan ST: **Therole of fine-needle aspiration biopsy in the primary diagnosisofmesenchymal lesions: a community hospital-based experience.***Cancer*2000,**90(3):**178-185.