

MEDIASTINAL SCHWANNOMA -- a case report



Medical Science

KEYWORDS : Mediastinal , Schwannoma.

Matta R

Departments of Cardio thoracic and Vascular Surgery¹ , Radiology² & Pathology³
Krishna Institute of Medical Sciences Deemed University, Karad, Maharashtra, India.

MCh, Sahoo K

Departments of Cardio thoracic and Vascular Surgery¹ , Radiology² & Pathology³
Krishna Institute of Medical Sciences Deemed University, Karad, Maharashtra, India.

Jagtap SV

Departments of Cardio thoracic and Vascular Surgery¹ , Radiology² & Pathology³
Krishna Institute of Medical Sciences Deemed University, Karad, Maharashtra, India.

ABSTRACT

Mediastinal Schwannomas usually arise as a single benign lesion. Video-assisted thoracoscopic surgery (VATS) is the gold standard approach when deemed feasible. Thoracotomy is reserved for cases which do not fulfil the criteria

for VATS.

INTRODUCTION :-

Mediastinal Schwannomas are the most common neurogenic tumors and generally involve the posterior mediastinum. Surgical resection is the treatment of choice.

CASE REPORT :-

A 63 year old gentleman presented with a feeling of discomfort in the lower part of left side of his chest. The discomfort was continuously present and was unrelated to posture, walking. The discomfort was not associated with shortness of breath, angina pectoris. There was no history of local trauma. Clinical examination was unremarkable. Computerized Tomography of the thorax (Fig.1) displayed a well- defined mixed density lesion , 7 cm in diameter in the paraspinal region from the seventh to the ninth thoracic vertebrae ; no other abnormality .

In view of the large size of the mass, VATS was not considered. Elective surgery was performed via a limited left posterior thoracotomy through the seventh intercostal space. A single ovoid posterior mediastinal mass 8 x 7 x 5 cms was found adherent to the lower lobe of left lung , adjacent segment of descending thoracic aorta and chest wall in the region of seventh and eighth intercostal spaces. Excision biopsy (Fig.2)was done and the histopathological finding (Fig.3) was Schwannoma composed of alternating Antoni A (cellular area- composed of spindle cells with twisted nuclei and indistinct cytoplasmic borders) and Antoni B (hypocellular area with small vacuolated cells dispersed in a loosely textured matrix) areas. Large, ectatic, irregularly spaced blood vessels with extensive areas of hyalinization and areas of cystic degeneration present.

DISCUSSION :-

Posterior neurogenic tumors originate from a nerve sheath or autonomic ganglia [1]. Mediastinal Schwannomas are tumors which develop from cells which are Schwannian in origin [2]. They usually arise as a single benign tumor in the costovertebral sulcus . In about 10 % cases, they may extend into the spinal canal (dumbell tumors)[3].Occasionally , they may extend into the cervical region . Multiple lesions are rare. These tumors are often symptom free [4] and hence incidentally diagnosed. Sometimes , they present with chest discomfort.

VATS is recommended when the lesion is less than 6 cms and without evidence of (a)malignancy(b) intraspinal extension (c) spinal artery involvement (d)extension into the middle mediastinum [5]. In case of dumbell tumors ,VATS can be done after laminectomy. Chen et al [6] described successful thoracoscopic resection of multiple Schwannomas arising from a single intercostal nerve in the posterior chest wall. The advantages of VATS

are (1) less pain (2) shorter hospital stay (3) better cosmesis (4) rapid recovery. After complete resection of these benign lesions, the incidence of local recurrence is negligible [4] , regardless of the histological type.

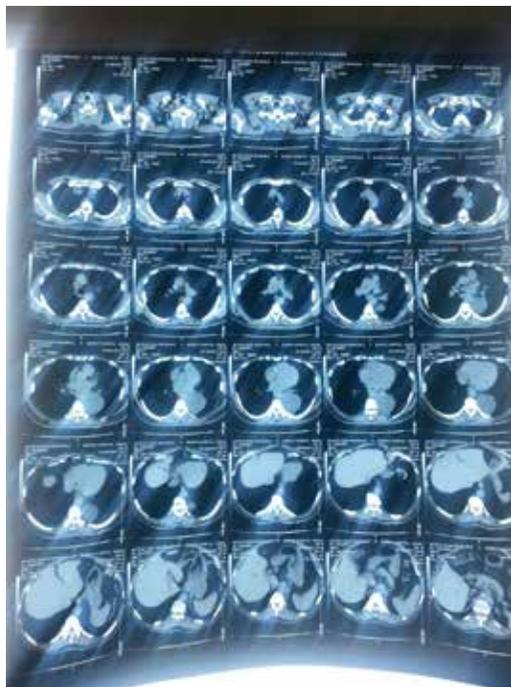
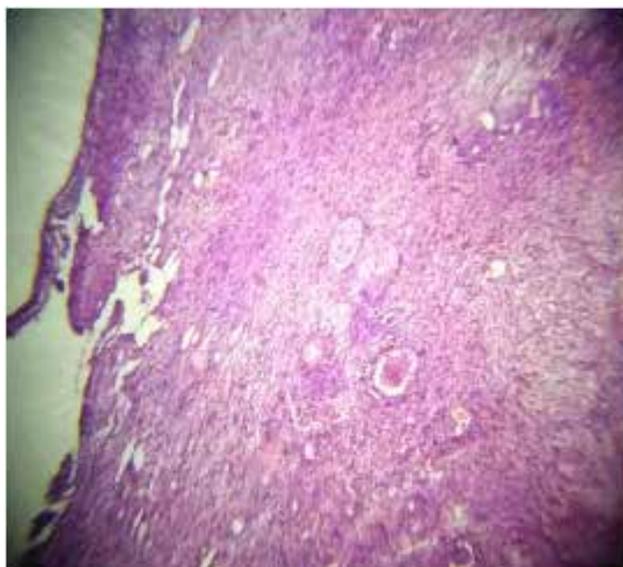


Fig.1 Computerized Tomography of the thorax displaying the posterior mediastinal mass.



Fig.2 Gross specimen of the excised posterior mediastinal mass



H & E 40X



H & E 400X

Fig.3 Photomicrograph showing hypercellular (Antoni A , with few areas of nuclear palisading) and hypocellular (Antoni B) areas.

REFERENCE

1. Ponce FA, Killory BD, Wait SD, Theodore N, Dickman CA . Endoscopic resection of intra thoracic tumors: experience with and long term results of 26 patients. *J Neurosurg Spine* 2011; 14(3) : 377-81. | | 2. Dasgupta TK, Brasfield RD , Strong EW , Hajdu SI . Benign solitary Schwannomas. *Cancer* 1969 ; 24 (2) : 355-66. | | 3. Akwari OE , Payne WS, Onofrio BM, Dines DE , Muhm JR. Dumbell neurogenic tumors of the mediastinum. Diagnosis and managment . *Mayo Clinic Proceedings* 1978; 53 (6) : 353-58. | | 4. Davidson KG, Walbaum PR, Mc Cormack RJ. Intra thoracic neural tumors. *Thorax* 1978 ; 33: 359 -67. | | 5. Riquet M, Mouroux J, Pons F et al. Videothoroscopic excision of thoracic neurogenic tumors. *Ann Thorac Surg* 1995 ; 60 : 943 -6. | | 6. Chen F , Nakayama E , Okubo K, Date H. Intra thoracic multiple Schwannomas of a single intercostal nerve. *Ann Thorac Surg* 2008 ; 86 (2) : 660-61. |