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Clinical Image
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Rare Exceptionally Large Primary Leiomyosarcoma Arising from the Mediastinum: Relevance of the Surgical Approach for the Achievement of R0 Resection

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Keywords

Leiomyosarcoma; Mediastinum; Thoracic Surgery; Surgical Approach; Hemiclamshell

Clinical Image

Primary sarcoma of the mediastinum is a rare highly aggressive neoplasm [1]. Although complete surgical resection is associated with improved disease-free survival and overall survival compared with incomplete resection and postoperative radiotherapy [2], invasion or compression of mediastinal organs can make surgical dissection difficult and risk full, thus R0 resection can be achieved in less than 50% of the cases [3]. For this reason, especially in cases of huge tumors, surgeons should be aware of the importance of selecting a surgical incision aimed at facilitating a precise exploration of the tumor and the management in case of an emergency situation. We report on the successful surgical treatment of a 38-year-old patient with an *exceptionally large* mediastinal primary leiomyosarcoma. Because of the size and location of the mass (Figure 1), the underused hemiclamshell approach was chosen, providing the best access for control of the large vessels, tracheobronchial tree and phrenic nerves (Figure 2).

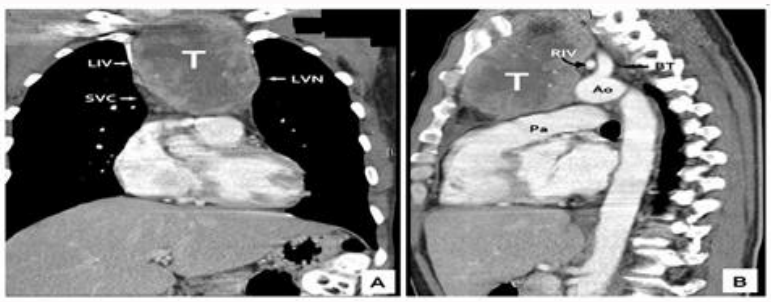

Figure 1: Coronal and sagittal images of contrast-enhanced chest computed tomography showing the a*natomic relationship* between sarcoma (T) and the surrounding neurovascular structures: aorta (Ao), *brachiocephalic trunk (BT),* Left and Right Innominate Veins (LIV, RIV), Main Pulmonary Artery (Pa), Superior Vena Cava (SVC) and Left Vagus Nerve (LVN).

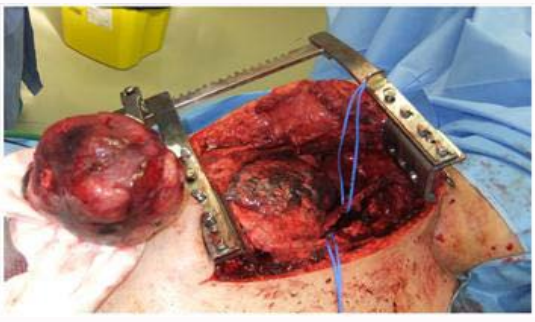

Figure 2: Operative image after en bloc excision of the 17-cm large leiomyosarcoma. The Hemiclamshell incision provided excellent an exposure and facilitated the safe dissection of the tumor from trachea and neurovascular structures.

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