

# RARE PRIMARY MEDIASTINAL LIPOSARCOMA - A CASE REPORT

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## ABSTRACT

**Introduction:** Liposarcoma is a malignant tumor of adipocytes and a commonly diagnosed soft tissue tumor in adults. It occurs in the limbs and retroperitoneum<sup>1,2,3</sup>. Primary mediastinal liposarcoma is a rare entity, and very few cases have been reported. The presenting symptoms are related to invasion or compression of the adjacent structures<sup>4,5</sup>.

**Case presentation:** A case of 55 years old male, who presented to us with respiratory complaints due to huge primary mediastinal liposarcoma, was treated successfully with surgical excision. Postoperative period was uneventful.

**Conclusion:** Surgical excision of mediastinal liposarcoma is the optimal treatment.

**Key Words:** Mediastinal Liposarcoma; surgical excision; recurrence

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## INTRODUCTION

Primary mediastinal liposarcoma is an uncommon tumor, representing <1% of all mediastinal tumors<sup>[1,2]</sup>. Liposarcoma is malignant and can be locally aggressive<sup>[2,3]</sup>. Patients can be asymptomatic or symptomatic depending upon the size and involvement of adjacent structures like lung, heart, pericardium and great vessels. A complete surgical excision is the optimal treatment and long follow up is required, as they might recur depending upon the pathological type<sup>[4,5]</sup>.

A case of primary mediastinal liposarcoma extending bilaterally, more so on left, which was managed by surgical excision is presented here.

## CASE PRESENTATION

A 55 years old male, with no known comorbidities, presented with complaints of shortness of breath for 2 years and chest pain for 18 months. He had progressive dyspnea which worsened over period of two years and now he was unable to do his routine activities. He also had orthopnea and was unable to sleep in supine and right lateral positions but was



CHEST X-RAY PA VIEW



CT THORAX MEDIASTINAL WINDOW



CT THORAX MEDIASTINAL & LUNG WINDOW

comfortable while lying on left with head end raised.

He was seen by several physicians and treated as a case of congestive cardiac failure. When he presented to us his diagnostic work up was done. X Ray chest showed opaque left hemithorax with contralateral tracheal shift and opacity in right hemithorax sparing only upper zone. Computed Tomography with contrast revealed huge fat density mediastinal mass draping around heart extending to and occupying entire left hemithorax and almost half of the right hemithorax with mediastinal shift towards right. This patient was breathing only on his right lower lobe, as is evident from the lung window of his CT.

Anterolateral thoracotomy was done to excise the mass completely. It was a huge, well- capsulated yellow tumor occupying the whole left hemithorax and half of right hemithorax without invading the pericardium, major vessels, lung, chest wall and diaphragm .It weighed 5.5kg and was sent for histopathology on which it was diagnosed as Liposarcoma.

Postoperative course of the patient was uneventful. Lungs were fully expanded and patient was symptom free.



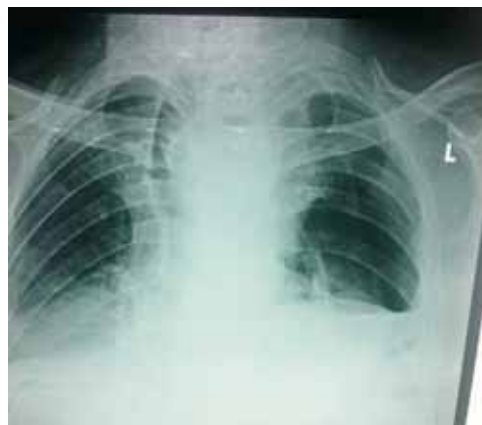
CT THORAX LUNG WINDOW



PER OP PICTURE



EXCISED MASS ON WIEGHING SCALE



POST OP CHEST X-RAY

## DISCUSSION

Liposarcomas are malignant tumors of adipocytes<sup>[1,3]</sup>. They usually occur in lower limb followed by retroperitoneum. Primary liposarcoma is very unusual in mediastinum and represents less than <1% of

mediastinal tumors and only 150 cases have been reported till now in medical literature<sup>[6,7]</sup>.

They are rare in children and mostly affect adults; 2/3<sup>rd</sup> of cases occur in patient more than 40 years of age as in our case also. They affect both genders equally.

Liposarcomas usually present in posterior mediastinum involving paravertebral sulcus and posterior portion of mediastinum, liposarcoma of the anterior mediastinum is even rarer which was in our case<sup>[6,7]</sup>.

Liposarcomas may be asymptomatic in 15% individuals and discovered accidentally on routine chest radiography. 85% patients may present with chest pain, dyspnea, tachypnea and involvement of adjacent structures like heart, pericardium and great vessels like superior vena cava syndrome which may present in 15% individuals. Weight loss can be present in 25% cases<sup>[8]</sup>. In our case the patient presented with dyspnea, orthopnea and chest pain.

Liposarcomas can enlarge and involve a big area as in our patient in which it involved both hemi thoraces; and they present as lobulated, ill defined borders opacity on chest radiography. On CT scan chest liposarcomas have density between water and fat i.e 50-150 HFU which is consistent with tissues composed of fat while greater values are related to necrosis; while poorly differentiated tumor may have 15-20HFU<sup>[7,9]</sup>.

Complete surgical resection is the only cure to prevent recurrence and improvement of clinical condition of patient. Chemotherapy and radiotherapy may add as adjunct but these tumors are not very sensitive.

## CONCLUSION

Surgical excision of mediastinal liposarcoma is the optimal treatment and was successfully done in this case despite the large size and involvement of not only mediastinum but both hemithoraces as well.

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