

Mediastinal lipoblastoma: a rare entity discovered on physical exam

Shinban Liu,¹ Reena Bakshi,² George Ferzli¹

¹General Surgery, NYU Langone Medical Center, Brooklyn, New York, USA

²Department of Surgery, Maimonides Medical Center, Brooklyn, New York, USA

Correspondence to
Dr Shinban Liu,
shinban.liu@nyumc.org

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DESCRIPTION

A 3-year-old male with no significant medical or surgical history presents to his paediatrician for annual examination. On auscultation, he was noted to have diminished left-sided breath sounds and heart sounds displaced to the right. The patient had no complaints of pain, difficulty swallowing, shortness of breath or dyspnoea on exertion. An initial chest X-ray was performed which demonstrated complete opacification of the left hemithorax with mediastinal shift towards the right. This was followed by a radiation dose reduced CT of the chest with intravenous contrast, which demonstrated a 7.8×7.4×13.3 cm fat density mass filling the majority of the left lung and extending to the pleura and mediastinum (figure 1A). The patient was optimised for the operating room and underwent a left lateral thoracotomy. Intraoperatively, the mass was identified and noted to have fusion to the pericardium and pleura in its superior margin with all other borders freely mobile. After careful dissection, the mass was removed in its entirety and grossly appeared to be mixed fatty and stromal connective tissue (figure 1B). The patient had an uncomplicated hospital course with postoperative chest X-ray demonstrating no significant haemothorax or pneumothorax (figure 2A) and was discharged home. Surgical pathology would ultimately return as mature lipoblastoma (figure 2B).

Lipoblastoma are exceedingly rare paediatric neoplasms that are generally well-encapsulated, fast growing and benign. While they most commonly appear in the trunk and extremities, they can present anywhere in the body. They are believed to have a 27% local recurrence rate with curative surgical excision as the primary mainstay of treatment.¹ They have not been found to metastasise and only become symptomatic with mass effect on adjacent structures. Few cases of mediastinal lipoblastoma

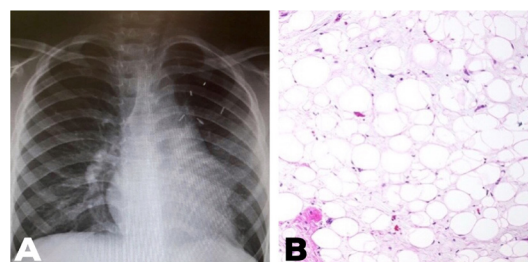


Figure 2 (A) Postoperative chest X-ray demonstrating no significant pneumothorax or haemothorax and partial re-expansion of left lung; (B) histopathology consistent with mature lipoblastoma.

are described in medical literature, and they represent a unique challenge due to the proximity of delicate and vital structures and require meticulous dissection for radical excision. After surgical resection, patients should have regular follow-up as local recurrence rates may range from 12% to 25% despite complete excision.² This case represents a rare clinical entity where the neoplasm was discovered by astute physical examination rather than patient symptoms. The patient will continue to be followed annually for evaluation of recurrence with repeated CT if he develops new symptoms or abnormal physical exam findings.

Learning points

- ▶ Lipoblastoma are benign, well-encapsulated neoplasms that typically present before the age of 3.
- ▶ The recommended treatment is complete surgical excision.
- ▶ Good preoperative planning is required to determine resectable margins.

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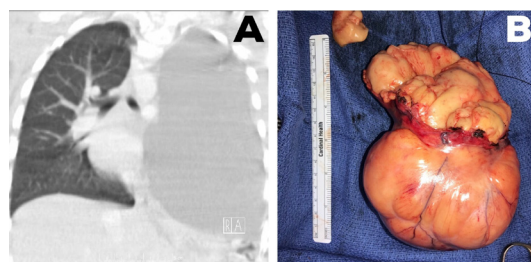


Figure 1 (A) Radiation dose reduced CT imaging with fat density filling the left hemithorax with mediastinal shift; (B) gross anatomic specimen with mixed fatty and stromal connective tissue.



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