

Title: Dealing with Giant Intrathoracic Tumours - A Challenging Surgical Experience

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Introduction:

-Giant intrathoracic tumors- long axis exceeding 10 cm or tumors covering more than 50% of the hemithorax.

-Surgical challenges- approach, addressing neurovascular invasion and compression of adjacent structures, mediastinal shift, and hemodynamic instability.

-This study reviews the complexities and surgical experiences encountered during the intraoperative management of patients with resectable giant intrathoracic masses.

Materials and methods:

- Retrospective case series.
- 9 cases of giant intrathoracic tumour operated between 2021 Jan-2024 March.
- Demographic details, surgical approach, perioperative complications and histopathology were recorded.

Results:

Demography

- Age 4-68 years
- Sex: M:F:: 4:5
- Side: Right-5, Left-4
- Mean length of tumour: 21cm
- Mean weight: 3.4kg

Histopathology

- Thymolipoma-1
- Solitary Fibrous Tumour-2
- Liposarcoma-2
- Synovial sarcoma-4

Perioperative complications:

- Tracheal injury (1)
- Esophageal injury (1)
- Diaphragm involvement (2)
- Re-expansion pulmonary edema (3)

Concerns during induction:

- Mediastinal compression (3)
- Awake intubation (4)
- Hemodynamic instability during lateral positioning (2)

Conclusion:

- Multidisciplinary team for planning and management.
- Tailor made surgical approach for optimal exposure.
- Vascular collaterals to the tumour can be preoperatively embolised.
- Adjacent vital structures require careful dissection.
- Complete excision with negative margins offers better survival.
- Risk of re-expansion pulmonary edema in remaining lung: IPPV, affected side up positioning, steroids and diuretics.

Surgical Approach (cases)

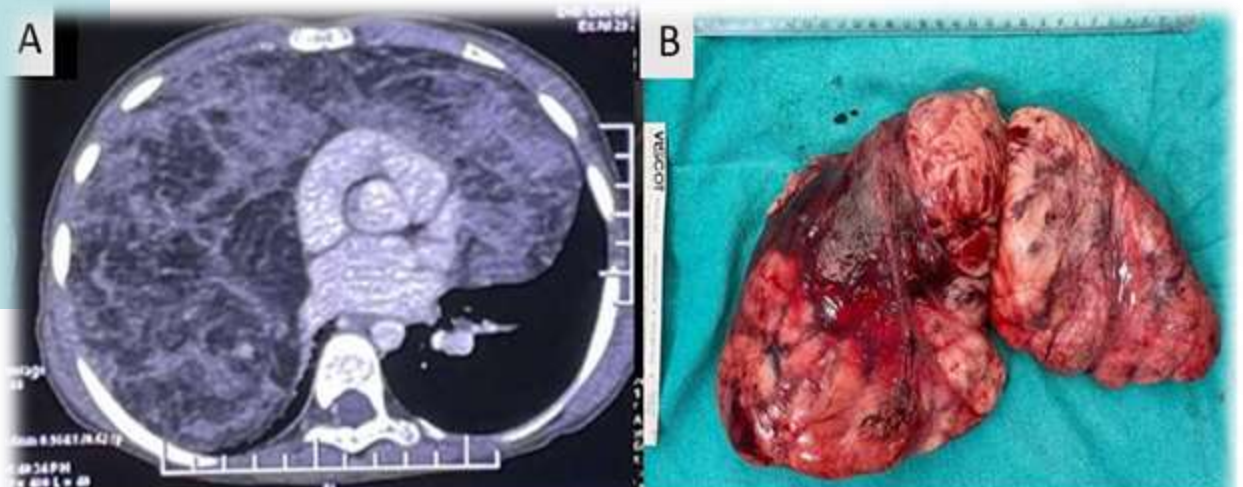
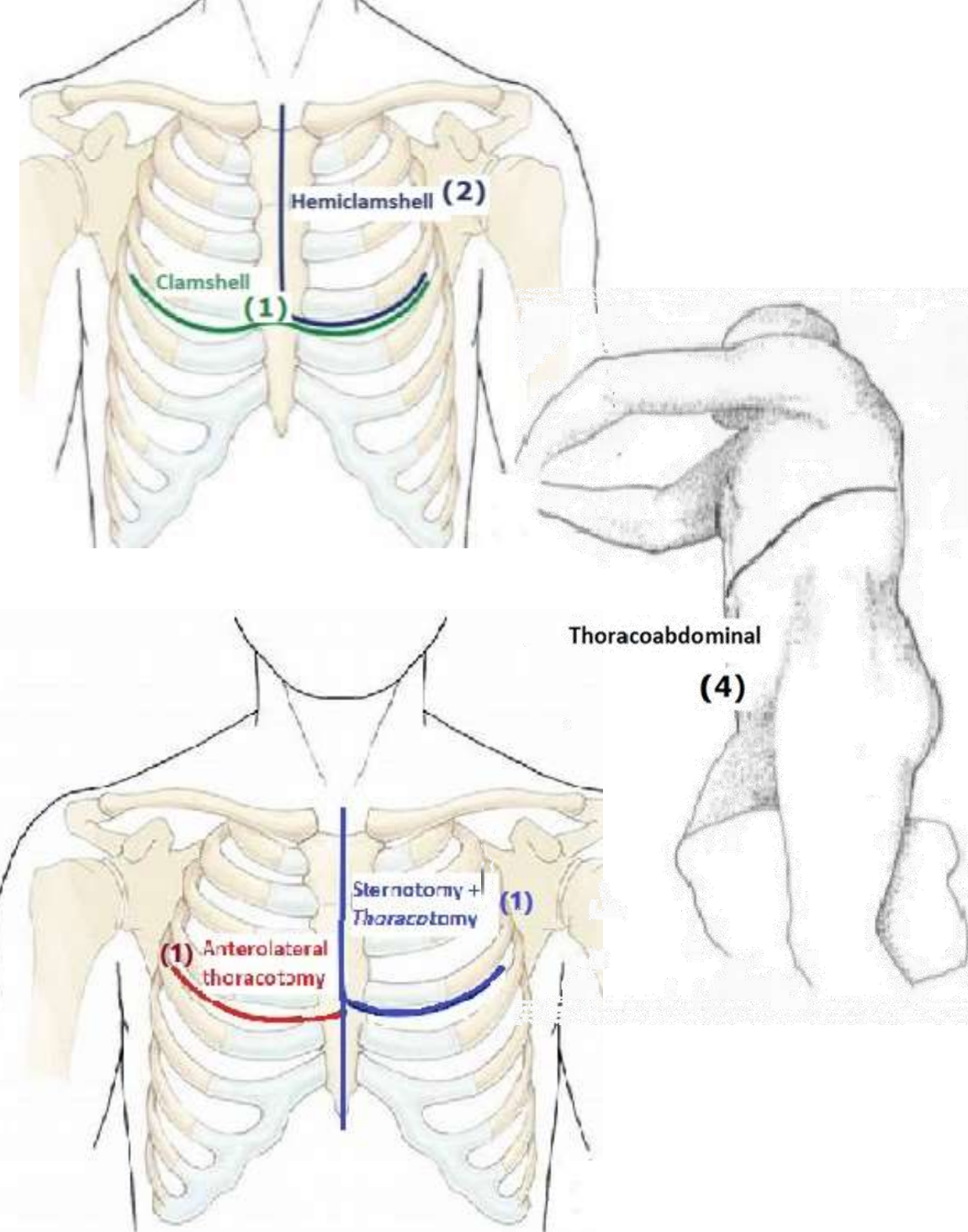


Fig 1: (A)-CECT thorax showing large tumour with fat attenuation compressing right lung and extending to left (B)- Excised specimen of thymolipoma

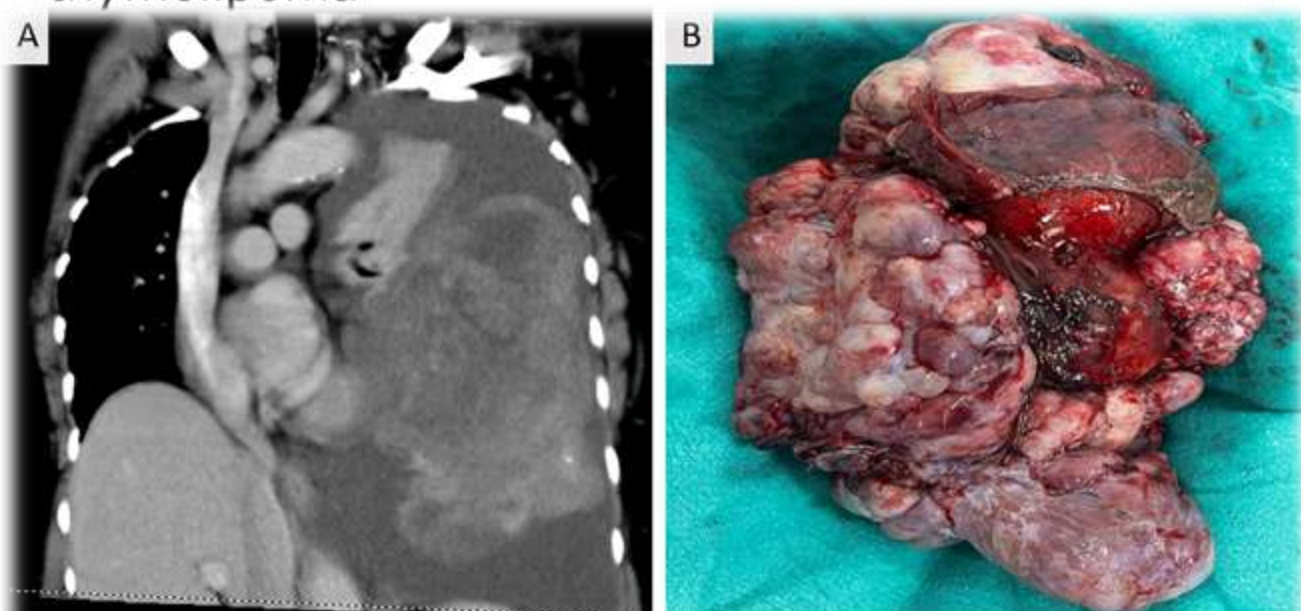


Fig 2: (A)-CECT thorax showing large left pleural based intrathoracic mass (B)-Excised specimen of solitary fibrous tumour

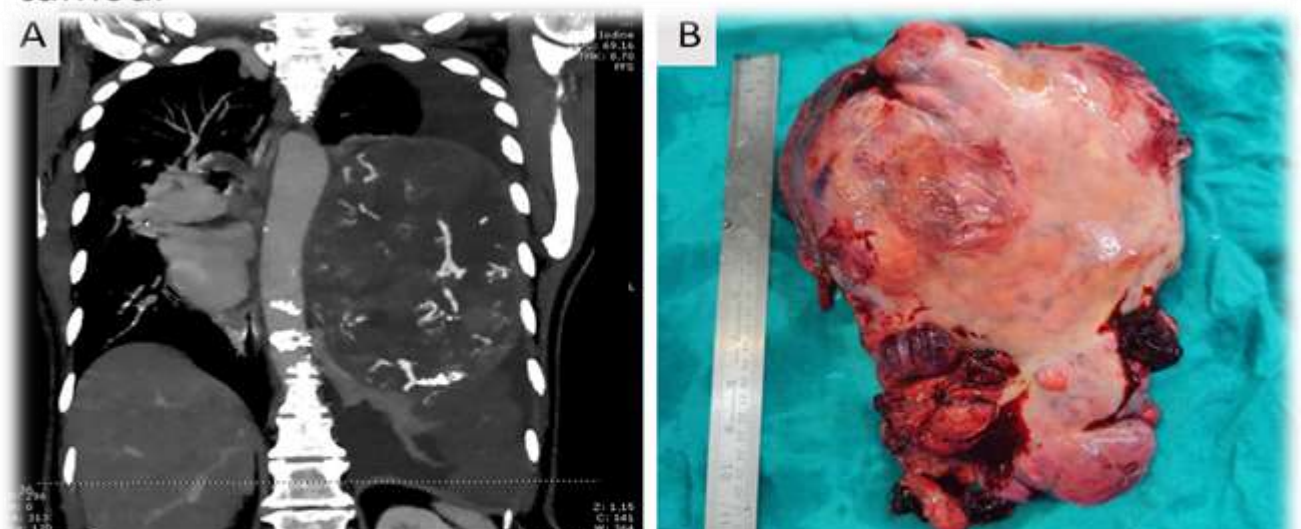


Fig 3: (A)-CECT thorax showing large tumour involving the left lower lobe (B)- left pneumonectomy with synovial sarcoma