A Rare Case of A Large Thymoma Presenting with Subacute Pericardial Effusion



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Case Presentation

- 69-year-old female, unremarkable PMH with recurrent left upper chest pain for five months
- Recent dyspnea on exertion and declined functional capacity
- Chest CT: 13.4 x 9.1 cm anterior mediastinal mass with moderate to large pericardial effusion; 15 mm subcarinal lymph node was also seen [Figure 1A].
- Heterogeneous calcifications with extension into the pericardium and the right pleural space [Figure 1B]
- Hemodynamically stable without evidence of tamponade physiology.
- High-complexity fluoroscopy-guided pericardiocentesis: symptomatic relief and cytological examination.

→ Combined morphology and immunohistochemical test results are indicative of thymoma, subtype WHO B2 [Figure 2A, 2B, 2C].

Literature Review

- Thymoma: uncommon malignancy with overall incidence ranging between 0.13 and 0.32 per 100,000 individuals per year [1,2].
- Given the emerging understanding of the biology of these tumors, there might be a need to retire the current WHO schema and replace it with a more accurate histological classification [3].
- Advanced and unresectable thymic tumors may require multimodal treatments: induction chemotherapy, extended surgical resections, adjuvant chemotherapy, and hyperthermic intrathoracic chemotherapy (HITHOC) [4].

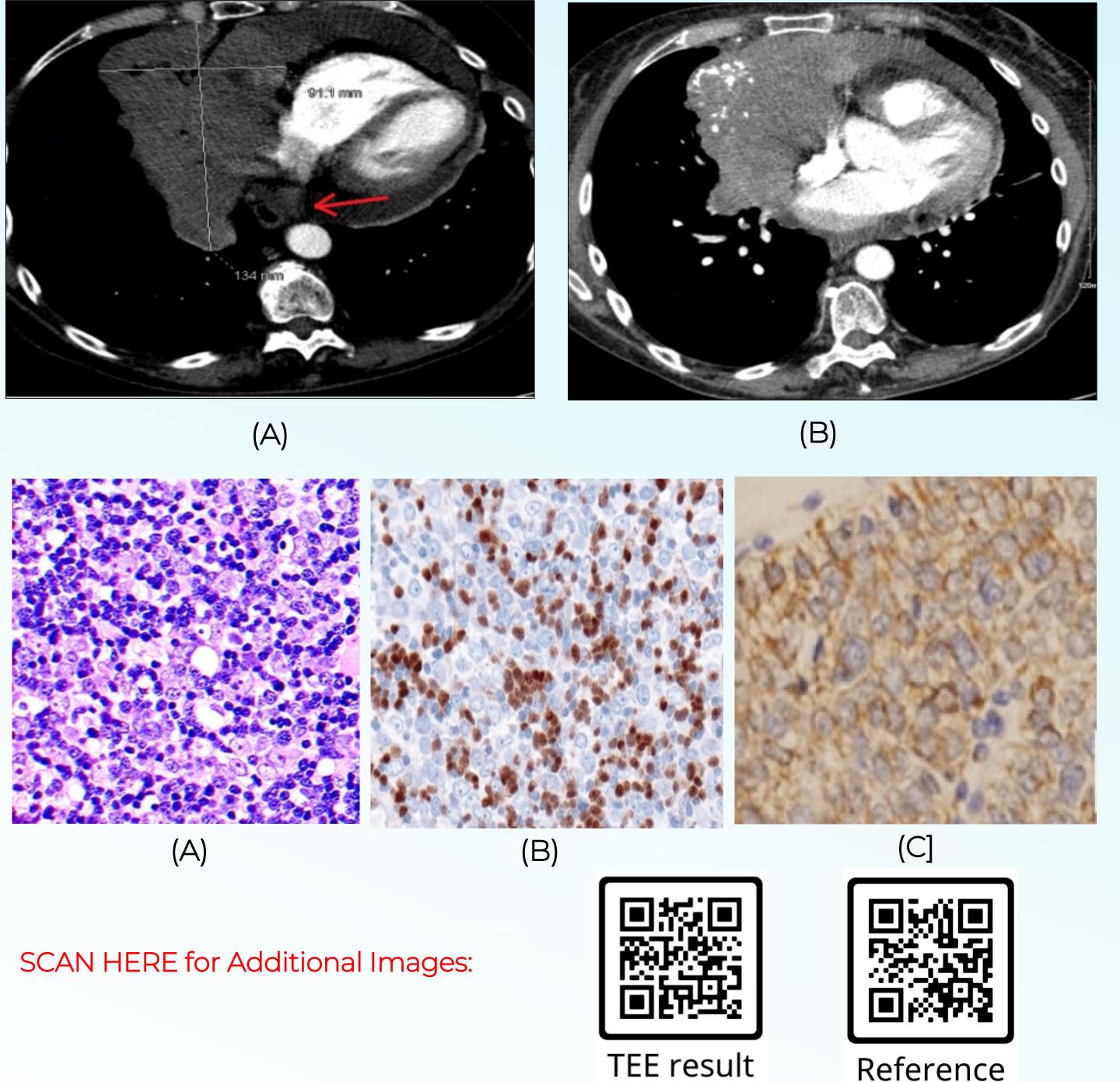


Figure 1: Chest CT scans

(A): Large anterior mediastinal mass & moderate to large pericardial effusion and subcarinal lymph node (red arrow)

(B): Heterogeneous calcifications & extension into the pericardium and into the right pleural space

Figure 2: Histology & IHC results:

(A): Mixture of epithelial tumor clusters and small lymphocytes.

(B): CD5 positivity

(C): p40 positivity

→ Thymoma, subtype WHO B2.

Unique Aspect

- Initially: relatively indolent course characterized by mild, recurrent chest pain.
- Subsequently: the slow infiltration of the tumor and accumulation of pericardial effusion.
- → Subacute presentation: exertional dyspnea and a decline in functional status.
- Fluoroscopy-guided pericardiocentesis: minimally invasive, symptomatic relief & diagnostic values.

Recommendation

- Local invasion and pericardial effusion poses challenges for complete mass resection.
- Importance of multidisciplinary approaches in such cases.

Conclusion

- Challenges in diagnosing and classifying thymomas.
- The importance of individualized, multidisciplinary approaches and accurate interpretation of clinical, radiologic, and histopathological findings.