

Unresectable Mediastinal Hyaline Vascular Unicentric Castleman Disease Masquerading as Nodal Marginal Zone Lymphoma

A Diagnostic Pitfall and Combined Modality Management — A Case Report
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KEY MESSAGE | Integrate morphology, immunostains and disease distribution.

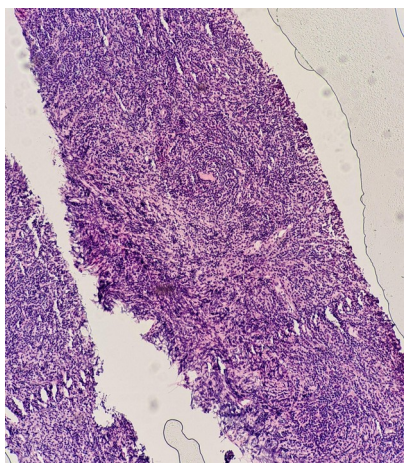
01 CLINICAL PRESENTATION

- Woman, 32; dyspnoea; no B symptoms.
- Mediastinal masses compressed the SVC and encased the right pulmonary artery and upper-lobe bronchus.
- PET-CT: one mediastinal region.
- ESR 70 mm/h; LDH 170 U/L.

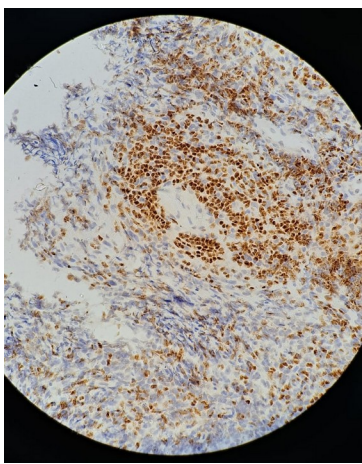
02 DIAGNOSTIC PITFALL

EBUS-FNA: non-diagnostic → core biopsy: possible Castleman disease → VATS biopsy: initially nodal marginal zone lymphoma.
Review: regressed germinal centres, thickened mantle zones (PAX5) and expanded CD21-positive dendritic networks supported hyaline-vascular UCD. [1,2]

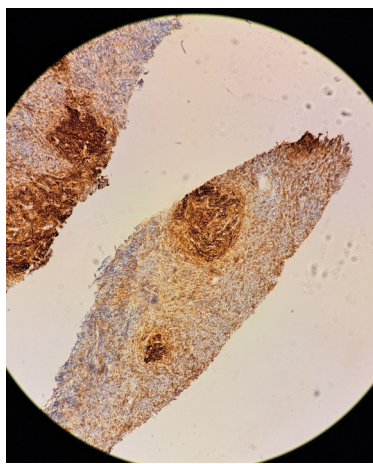
03 HISTOPATHOLOGY: ARCHITECTURE RESOLVED THE DIAGNOSIS



A H&E
Onion-skin mantle zones; vascular proliferation and hyalinisation.

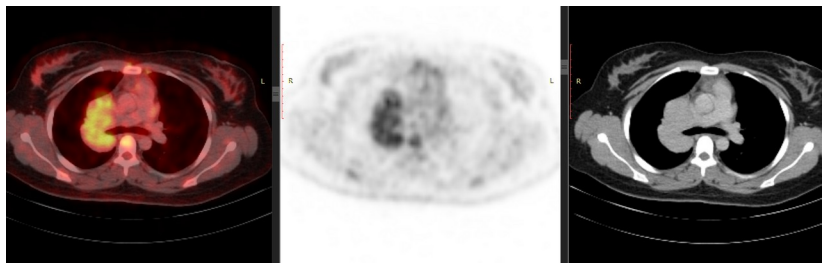


B PAX5
B cells within germinal centres and mantle zones.

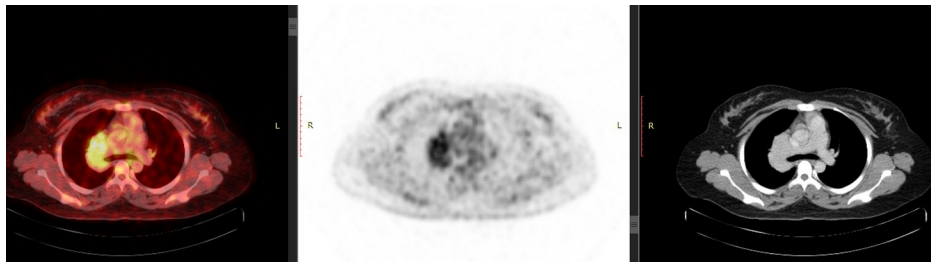


C CD21
Expanded follicular dendritic-cell networks.

04 SERIAL FDG PET-CT



D Baseline: mildly FDG-avid right perihilar mass



E After 3 cycles: marginal decrease in size/avidity



F End of treatment: stable size and avidity

05 MANAGEMENT

Vascular and bronchial encasement precluded complete excision.
MDT-selected treatment:
6 cycles of R-CHOP, followed by involved-site radiotherapy (36 Gy in 18 fractions).

06 OUTCOME

- Reported Deauville score: 3.
- Dyspnoea and pain resolved.
- ESR: 70 → 58 mm/h.
- Review: ~13 months after presentation; ~2 months after radiotherapy.
- Three-monthly surveillance.

07 CLINICAL IMPLICATIONS & LIMITATIONS

- Expert haematopathology review is essential when a localised mediastinal mass mimics lymphoma. [1,2]
- Surgery is preferred when feasible. Unresectable UCD requires individualised MDT care; R-CHOP here is case-specific, not a general UCD standard. [2]

SELECTED REFERENCES

[1] Wu D, et al. Pathology of Castleman Disease. Hematol Oncol Clin North Am. 2018;32:37–52.
[2] van Rhee F, et al. UCD consensus guidelines. Blood Adv. 2020;4:6039–6050.