UNCOMMON PRESENTATION OF STAGE IIE DIFFUSE LARGE B-CELL LYMPHOMA (ABC SUBTYPE) INTRACARDIAC MASS ENCASING THE SUPERIOR VENA CAVA

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Introduction

- DLBCL = most common aggressive NHL (≈25% of cases).
- Cardiac involvement rare (≈1% of cardiac tumors, 0.5% of extranodal NHL).
- Right atrium most frequent site.
- Symptoms nonspecific (dyspnea, edema, chest pain, arrhythmias).
- Imaging (CT, echo, MRI) is essential.
- Mainstay treatment = R-CHOP; newer option = Pola-R-CHP.
  Presenting a rare intracardiac DLBCL encasing SVC & pulmonary veins.

Aim and Objectives

- Report a rare case of DLBCL presenting as an intracardiac mass encasing the SVC.
- Demonstrate the role of multimodal imaging and biopsy in diagnosis.
- Highlight the favorable response to Pola-R-CHP therapy.
- Underscore the need for a multidisciplinary approach in rare cardiac lymphomas.

Case Presentation

- 67-year-old male: 3 months dyspnea, cough, fatigue; later bilateral upper limb & neck swelling.
- Exam: neck mass, edema, AF with RVR.
- CBC/chemistry: leukocytosis, anemia, elevated CRP, hyponatremia.
- Imaging:
  - CT angiogram: infiltrating RA wall mass encasing SVC & mediastinum.
  - Cardiac MRI: RA mass extending into SVC & pulmonary veins.
- Histopathology: CD20+ atypical lymphoid cells, MYC/BCL6/PAX5 variably positive, kappa-restricted B cells.
- Diagnosis: DLBCL, ABC subtype, double expressor (MYC & BCL2), stage IIE.



Figure 1: CT angiogram chest → infiltrating RA wall mass encasing SVC (37.8 × 48.6 mm).

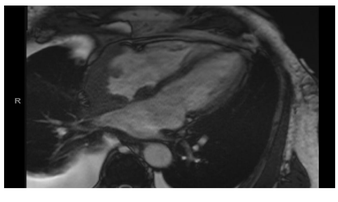


Figure 2: Cardiac MRI, 4-chamber view → RA mass extending into SVC & pulmonary veins.

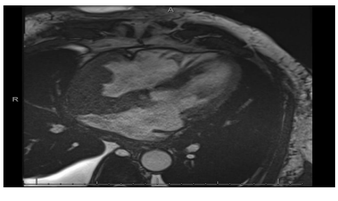


Figure 3: Cardiac MRI, short-axis view → spherical RA mass.



Figure 4: Needle core biopsy → diffuse infiltrate of atypical lymphoid cells, CD20+.

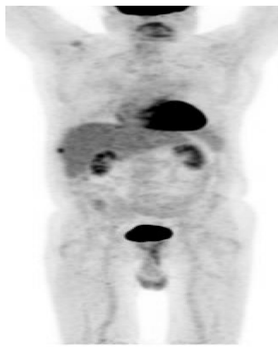


Figure 5: Whole-body PET-CT → complete metabolic response, no residual disease.

Treatment and Response

- Initial IV dexamethasone → symptomatic relief.
- Started CHOP + rituximab, later Pola-R-CHP.
- Complications: musculoskeletal pain with G-CSF (managed with Claritin).
- After 3 cycles: near-resolution of cardiac mass; mild residual LV dysfunction.
- PET-CT follow-up: no residual disease (Fig 7).
- Patient regained vigor; neuropathy mild/stable.

Table 1 Complete blood count on admission

Complete blood count	Patient's result	Reference ranges
White blood cells	14.9	4.0-10.0 x 10^3 /10^9 L
Red blood cells	4.65	4.5-5.5 x 10^6 /10^9 L
Haemoglobin	8.7	13.0-17.0 gm/dL
Hematocrit	31.5	40-50%
Platelets	358	150-410 x 10^3 /10^9 L
Clinical Chemistry on Admission		
Urea	25	6-24 mg/dL
Creatinine	0.62	0.74-1.35 mg/dL
Sodium	131	133-146 mmol/L
Potassium	3.8	3.5-5.3 mmol/L
Chloride	99	95-108 mmol/L
Bicarbonate	25	22-29 mmol/L
CRP	35.54	0-5 mg/dL

Discussion

- Rare case: intracardiac extension from mediastinal DLBCL.
- Mimicked benign atrial mass (myxoma).Multimodality imaging crucial (echo, CT, MRI complement each other).Biopsy = diagnostic gold standard.
- Prognosis worse for mediastinal DLBCL with cardiac involvement (delayed diagnosis).
- DLBCL responsive to chemotherapy (R-CHOP response 79–87%).Pola-R-CHP offers improved progression-free survival.
- Highlights importance of early recognition + multidisciplinary management.

Conclusion

- Intracardiac DLBCL is rare but should be considered in atypical RA/SVC masses.
- Multimodal imaging and biopsy essential.
- Early systemic therapy (chemo + targeted agents) improves outcomes.
- Multidisciplinary approach critical in complex presentations.

References

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