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Background

- A mediastinal mass increases the risk of cardiopulmonary complications.
- Risks are elevated in the pregnant patient due to diminished respiratory reserve.
- Rare condition in pregnancy, with unique anesthetic challenges.
- Here is a case of a patient presenting in the second trimester with a large mediastinal mass related to primary mediastinal B-cell lymphoma (PMBCL).

Case Description

- 35-year-old G1P0 at 25-weeks-gestation.
- One month of progressive dyspnea and palpitations.
- Found to have cardiac tamponade and a left pleural effusion.
- MRI: 5.5 x 13.0 x 1.0 cm anterior mediastinal mass extending from the thoracic inlet to the right cardiophrenic angle, encasing the vascular structures and compressing the main pulmonary artery. No tracheobronchial compression.
- CT-guided biopsy consistent with PMBCL.
- Acute episode of critical RV compression and decompensation with BPs 70/32 and HR 170s, resolved with fluid.
- Admitted to the ICU, started on R-CHOP chemo and dexamethasone.
- Responded well to chemotherapy, discharged, underwent 3 rounds of outpatient chemo.
- Mass reduction noted on serial TTE.
- Admitted at 36 weeks for medical optimization.
- Opted for labor induction but ultimately underwent an uneventful C-section under epidural anesthesia.

Figures

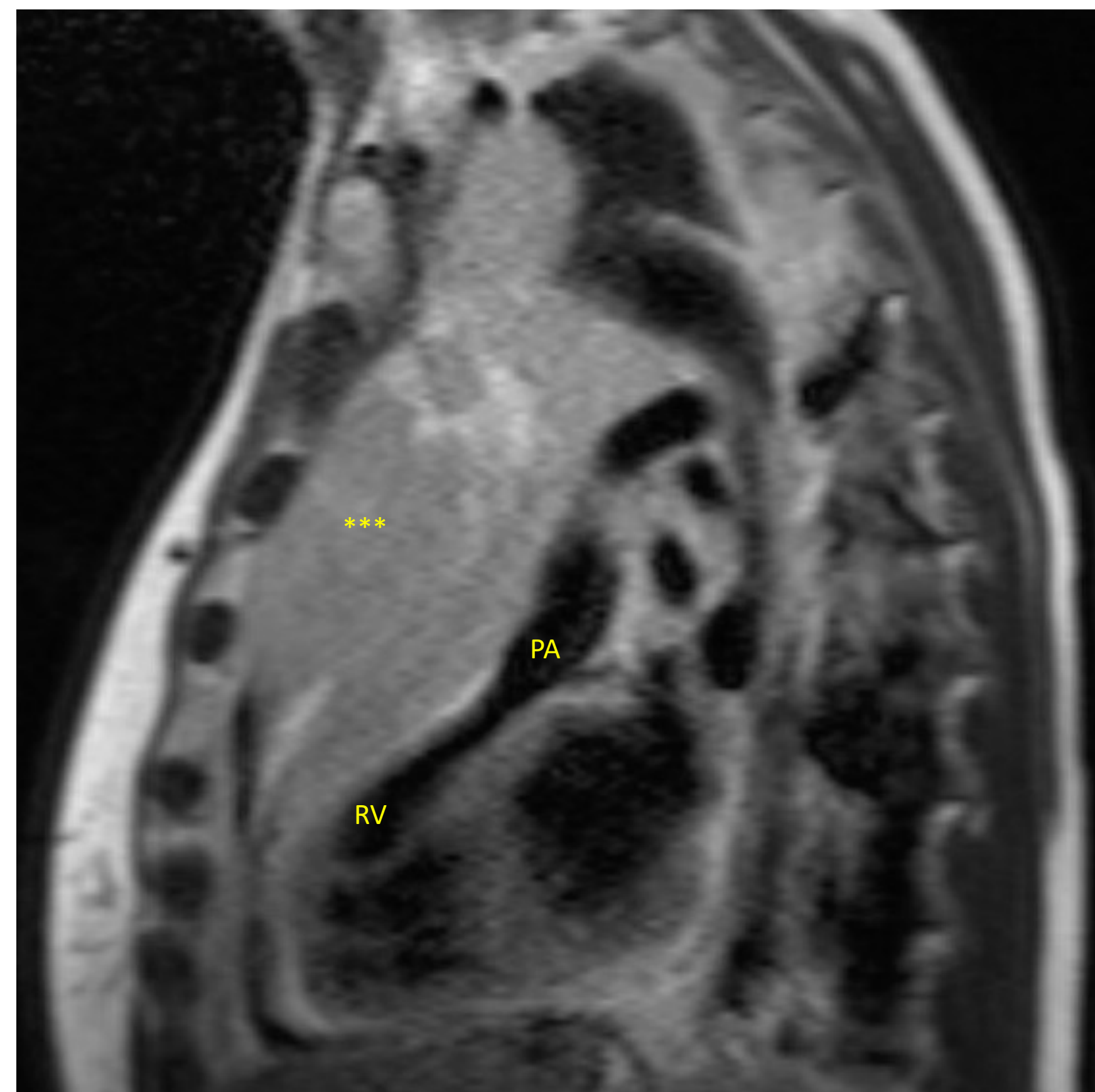


Figure 1.

Cardiac MRI significant for a 5.5 x 13.0 x 1.0 cm anterior mediastinal mass inseparable from the pericardium, resulting in compression of the main pulmonary artery. There is also evidence of pericarditis with early constrictive features.

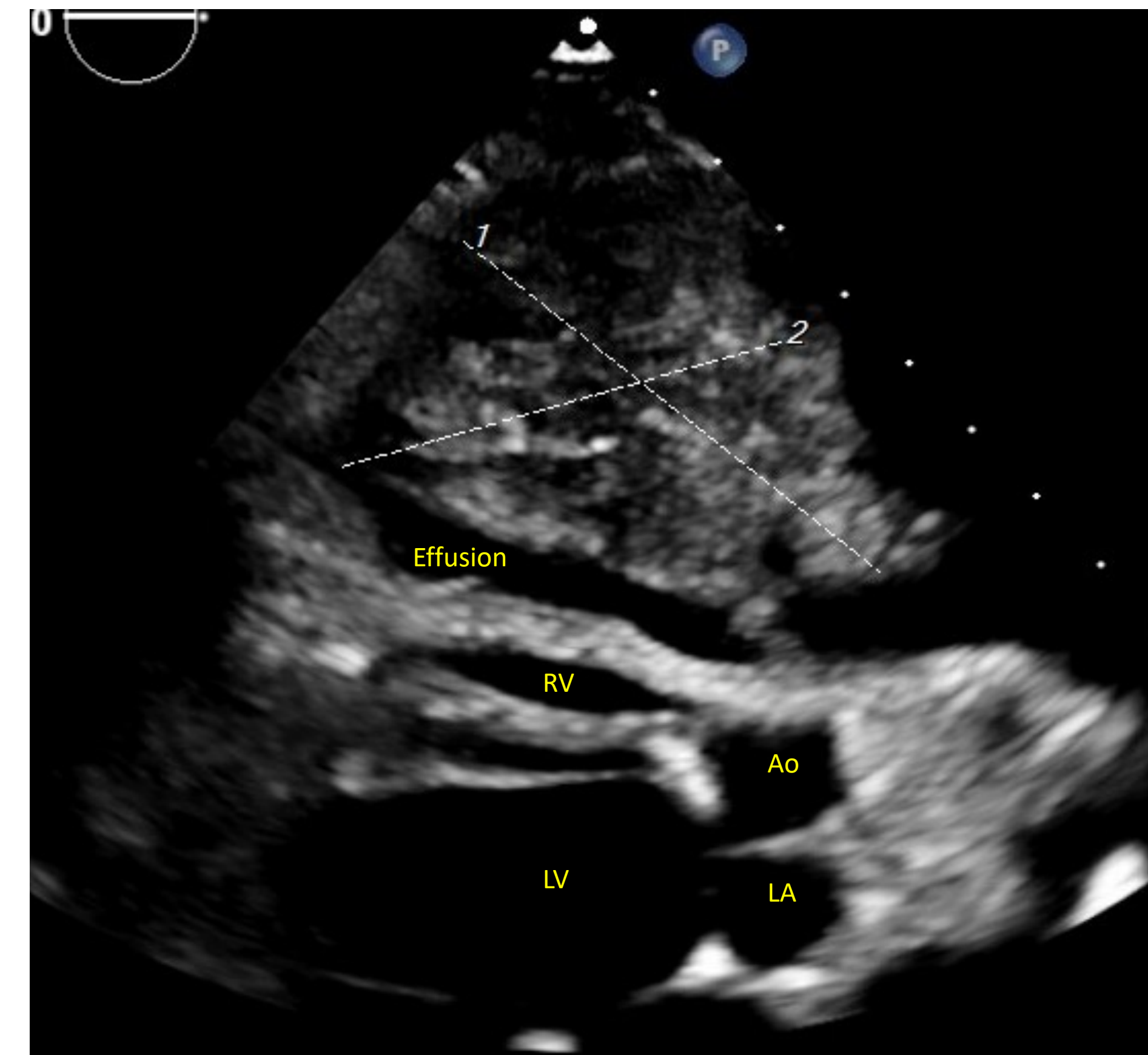


Figure 2.

TTE Parasternal long axis view showing a 5.7 cm x 4.6 cm pericardial echodensity causing mass effect on the RVOT limiting its expansion. Also present is a small to moderate pericardial effusion anterior to the right ventricle.

Discussion

- PMBCL is a rare subtype of Non-Hodgkin's Lymphoma, seen most commonly in women of reproductive age.
- Often presents as a bulky tumor in the mediastinum, with compressive symptoms like SVC syndrome and dyspnea from tracheobronchial compression. Pleural or pericardial effusions are found in up to 50%.
- PMBCL responds well to R-CHOP chemo; relatively high safety profile in the 2nd and 3rd trimesters.
- Neuraxial anesthesia/analgesia is preferred in patients with a mediastinal mass.
- General anesthesia is associated with increased morbidity and mortality from mediastinal mass syndrome.
- This case illustrates the need for a multidisciplinary approach and careful planning to optimize the outcome of both mother and fetus.

References

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