Anesthetic Management for a Parturient with Fibrosing Mediastinitis

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Fibrosing mediastinitis:

- Extensive growth of fibroinflammatory tissue in the mediastinum
- Critical occlusion of vital vascular and bronchial structures

  → Significant morbidity and mortality (up to 30%)
- Variable disease progression and controversial treatment
- Exceedingly rare, epidemiologic data limited to few case reports

A 26y G1P0 with this disease becomes pregnant:

a. *What are the physiologic impacts of pregnancy?*

b. *How will we handle our anesthetic management?*

VANDERBILT UNIVERSITY MEDICAL CENTER

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Case Description

PREOP:
- MFM recommends Cesarean mode of delivery
- Patient seen in our high-risk OB anesthesia clinic for counseling and planning

INTRAOP:
- Plan: Arterial catheter and CSE placed
- Anesthetic goals: reduce pulmonary hypertension and support the right heart
- Result: uneventful CD

POSTOP:
- POD 0 hypoxia 2/2 to volume overload, successful diuresis
- Discharged POD 1

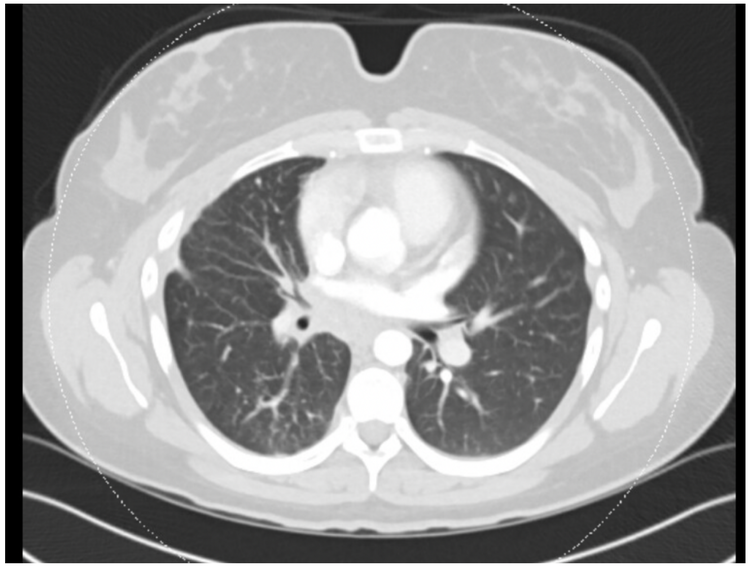

Fig. 1 CT image showing right superior pulmonary vein obliteration, marked narrowing of right upper pulmonary artery, and narrowing of left mainstem bronchus

Learning Points

Work up and Preparation

- Preop consultations with MFM and obstetric anesthesia
- Preferred mode of delivery is not established, likely varies upon severity of disease
- Obtain CT imaging of the chest to quantify degree of involved structures
- Serial TTEs recommended throughout pregnancy to eval for pulm HTN

Physiologic Considerations

- Substantial V/Q mismatch and pulm HTN due to mechanical compression
- Autotransfusion after delivery may result in acute heart failure
  - - Inodilators are first-line agents for support (milrinone, dobutamine)
  - - In extreme cases, some degree of intentional hemorrhage during this phase may also be appropriate
- Avoid worsening PVR: NO Carboprost or Methylergonovine, nitrous oxide