Background: Mediastinal Masses, Harrington Rods and Pregnancy

Mediastinal Masses

- Range from fast growing lymphomas to benign teratomas
- Physiologic changes of pregnancy may mimic presenting symptoms of mediastinal masses
- Space occupying masses further impact diaphragmatic expansion → SOB w/ activity, orthopnea
- Historically, avoidance of NMB and PPV has been practiced w/ maintenance of spontaneous ventilation [1, 2]
- Concern for great vessel or airway compression with tumor growth

Harrington Rods/Scoliosis

- Increased risk of: [3,4]
  - Difficult neuraxial placement
  - Patchy block
  - Cesarean delivery
  - Decreased offering of neuraxial by their provider
  - Decreased satisfaction with neuraxial analgesia compared to general population

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1. PMID: 34724550
2. PMID: 37261097
3. PMID: 377054190
4. PMID: 10576239

PATIENT: 22yo G1P0 @ 19w1d presented to ED with chest pain that awoke her from sleep. CT scan revealed L sided, anterior mediastinal mass concerning for teratoma. PMHx of scoliosis s/p spinal fusion to T1-L2/3 and obesity. She had difficulty lying less than 30deg elevation and SOB moving from supine to lateral.

CASE: After consultation with CT surgery for ECMO backup and OB anesthesia, patient underwent primary C/S for breech presentation under single shot spinal at 35w3d due to gestation HTN with severe range pressures and concern for pre-eclampsia. T4 level achieved, and healthy neonate delivered without complication.

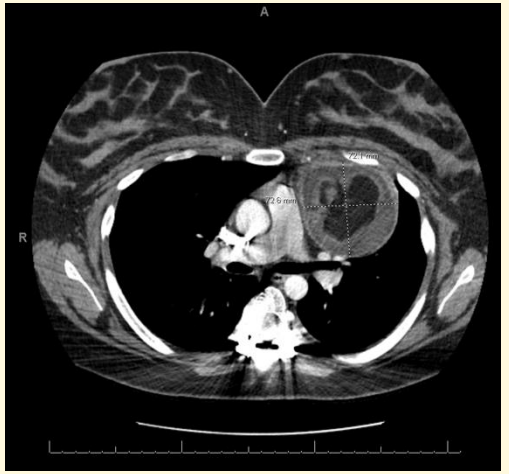

Figure 1. CT chest @ 13w gestation measuring 7.3 x 7.3 x 8.5cm with fat, soft tissue, and calcific elements consistent with teratoma.

Figure 2, AP spine showing Harrington rods terminating at L2/3 with persistent scoliotic curvature of the lumbar spine.

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Between A (Harrington) Rod and a Hard Place

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Discussion: Delivery Planning & Take Aways

Planning & Options

- Focus on potential progression of the mass and airway or great vessel compression
- GETA: requires PPV and (+/-) NMB
- Neuraxial: difficult placement, orthopnea, accessory muscle paralysis
  - SSS vs CSE vs Continuous IT
- ECMO as backup regardless of mode of anesthesia
- Difficult airway equipment available

Considerations

- Anticipation of difficult neuraxial with potential difficult treatment of PDPH with benefit of spontaneous ventilation
- Lack of benefit from CSE, b/c a prolonged case would potentially benefit from GETA, with increased risk of inadvertent dural puncture
- Decreased dose in SSS utilized given height (4'11"), obesity, and potential compression of thecal sac from hardware
- Prioritize first pass success with most experienced provider

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