A Cervical Conundrum: New diagnosis of thyroid goiter and dural venous fistula in pregnancy

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Background

- Spinal dural venous fistula presents a challenging clinical scenario
- Often diagnosed incidentally or 3rd trimester:
 - hematomyelia
 - neurologic dysfunction
 - leg spasticity/pain
 - most often cervical

Contraindication to Neuraxial?

High Cardiac Output

Shear force on dural fistula

Increased risk of hemorrhage/spinal cord dysfunction









Case Presentation

History

23yo G1P0, 28w1d
Dysphagia and new orthopnea-> admission for

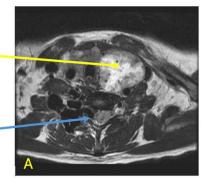
expedited workup

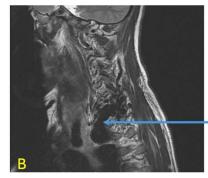
Imaging

 CT Scan: Tracheal deviation from enlarged thyroid gland

 MRI: Vascular lesion from IJ -> cervical spinal canal Thyroid goiter with tracheal deviation

Dural venous fistula with spinal cord compression





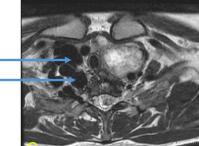
Sagittal view of dural venous fistula

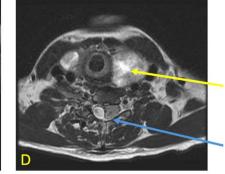
Intrapartum Management Avoidance of Valsalva + intubation

 Uncomplicated spinal (27G) anesthesia for cesarean

Normotension

Venous malformation extending from the internal jugular vein





Thyroid goiter
Spinal cord with indentation and deviation

Discharged POD 4

 Plan for postpartum embolization

Postpartum

Key Points

Collaborative Risk versus Benefit discussion
OB Anesthesia, Neurosurgery, Neuroradiology, and Maternal Fetal Medicine



Regional Anesthesia

- Risk of disrupting dural fistula
- Risk of hemorrhage/stroke

General Anesthesia

- Risk of difficult airway
- Fetal exposure to anesthesia
- Risk of postpartum hemorrhage





Cesarean Delivery

- Major abdominal surgery
- Hemodynamic changes (BP) affecting shear stress on fistula

Vaginal Delivery

- Risk of dural fistula rupture with valsalva
- Risk of airway edema with prolonged labor + oxytocin



