

Back for Blood? Considerations for Safe Neuraxial Placement in a Parturient with Known Vertebral Hemangiomas

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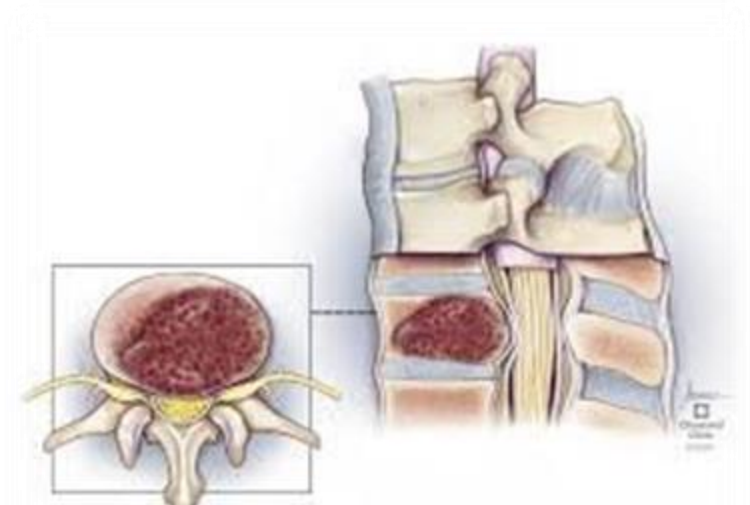
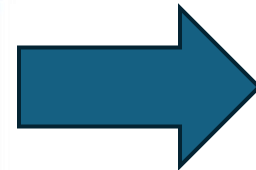
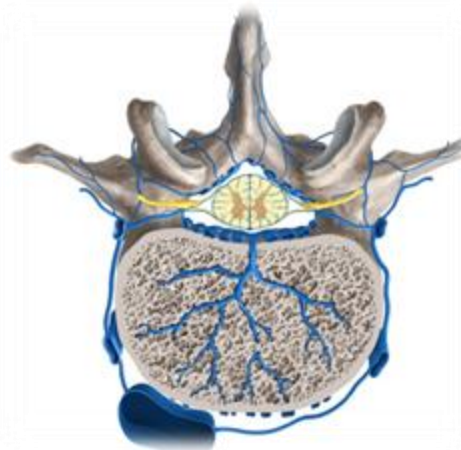
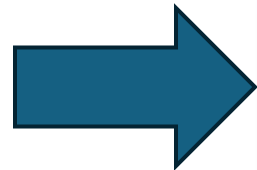
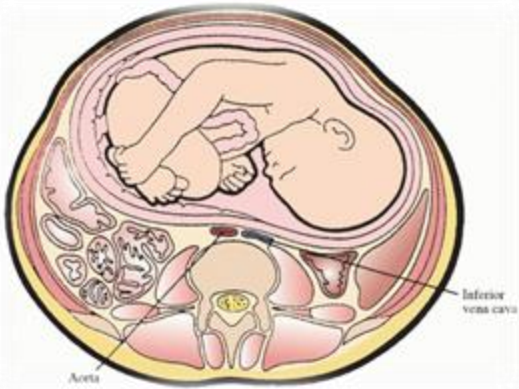
Background:

- Vertebral hemangiomas: benign tumors of abnormal blood vessels
- Incidence: 10-12% of general population¹
 - Most common in **lumbar** and thoracic spine

Complications²:

- Compression of spinal cord
- Fracture
- Epidural hematoma
- Spinal cord ischemia

During Pregnancy:



1. Kato, Kyle, et al. "Vertebral hemangiomas: a review on diagnosis and management." Journal of orthopaedic surgery and research 19.1 (2024): 310.

2. Chrysosoula Staikou, M. D., et al. "Undiagnosed vertebral hemangioma causing a lumbar compression fracture and epidural hematoma in a parturient undergoing vaginal delivery under epidural analgesia: a case report." Canadian Journal of Anesthesia 62.8 (2015): 901.

Case Presentation

- 39 y/o G5P2113 at 29w6d presenting to OB triage for rule out preterm labor
- **PMH:** abnormal bleeding, migraines
- **Imaging:** *MRI cervical spine (chronic migraines)*
 - **Incidental** findings of multiple stable benign hemangiomas at C6 vertebral body (9 x 7 mm), R C3 lamina, T4 vertebral body (5 mm)
- **OB history:** Prior labor analgesia: x2 uncomplicated epidurals*
- **Recommendations:** not in active labor, [outpatient MRI lumbar spine](#)
- **Labor course:**
 - MRI lumbar spine **negative for vertebral hemangiomas**
 - Placement of uncomplicated labor epidural
 - Spontaneous vaginal delivery



Image 1: axial bone window



Image 2: sagittal bone window

Take-home points

1. Vertebral hemangiomas are benign tumors of abnormal blood vessels
2. Incidence 10-12% in general population
3. More common in thoracic and lumbar spine
4. Expansion during pregnancy through delivery
5. Complications of rapid expansion can be devastating
6. Obtain lumbar MRI in patients with known vertebral hemangiomas
7. **AVOID neuraxial anesthesia at location of lumbar hemangiomas**
8. Consider cesarean section for high-risk patients