

Vascular malformations near the spine highlight the importance of outpatient pre-delivery planning in a high-risk obstetric anesthesia clinic

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INTRODUCTION:

- Outpatient high-risk obstetric (OB) anesthesia clinics = crucial resource for optimizing medically complex parturients
- Vascular malformations (VMs) present a wide spectrum of disease severity in pregnancy
 - Dedicated MRI warranted for safe delivery planning as VMs may progress

CASE BACKGROUND:

- 33 YO G1P0 patient admitted for elective IOL at 39 weeks
- Primarily Mandarin speaking
- Known diffuse paraspinous vascular malformations, not referred for high-risk OB anesthesia consultation
 - Congenital VMs of palm, axilla, upper back, lumbar paraspinous muscles, buttock, thigh, and vulva
 - Somatic mosaicism in the TEK gene → counseled condition can evolve but otherwise benign
 - 12 months prior to pregnancy the patient had undergone a pelvis MRI
- Additional past medical history was significant for: asthma, GERD, iron deficiency anemia
- Normal coagulation parameters, CBC, BMI

Paraspinous vascular malformations highlight the importance of outpatient pre-delivery planning in a high-risk obstetric anesthesia clinic

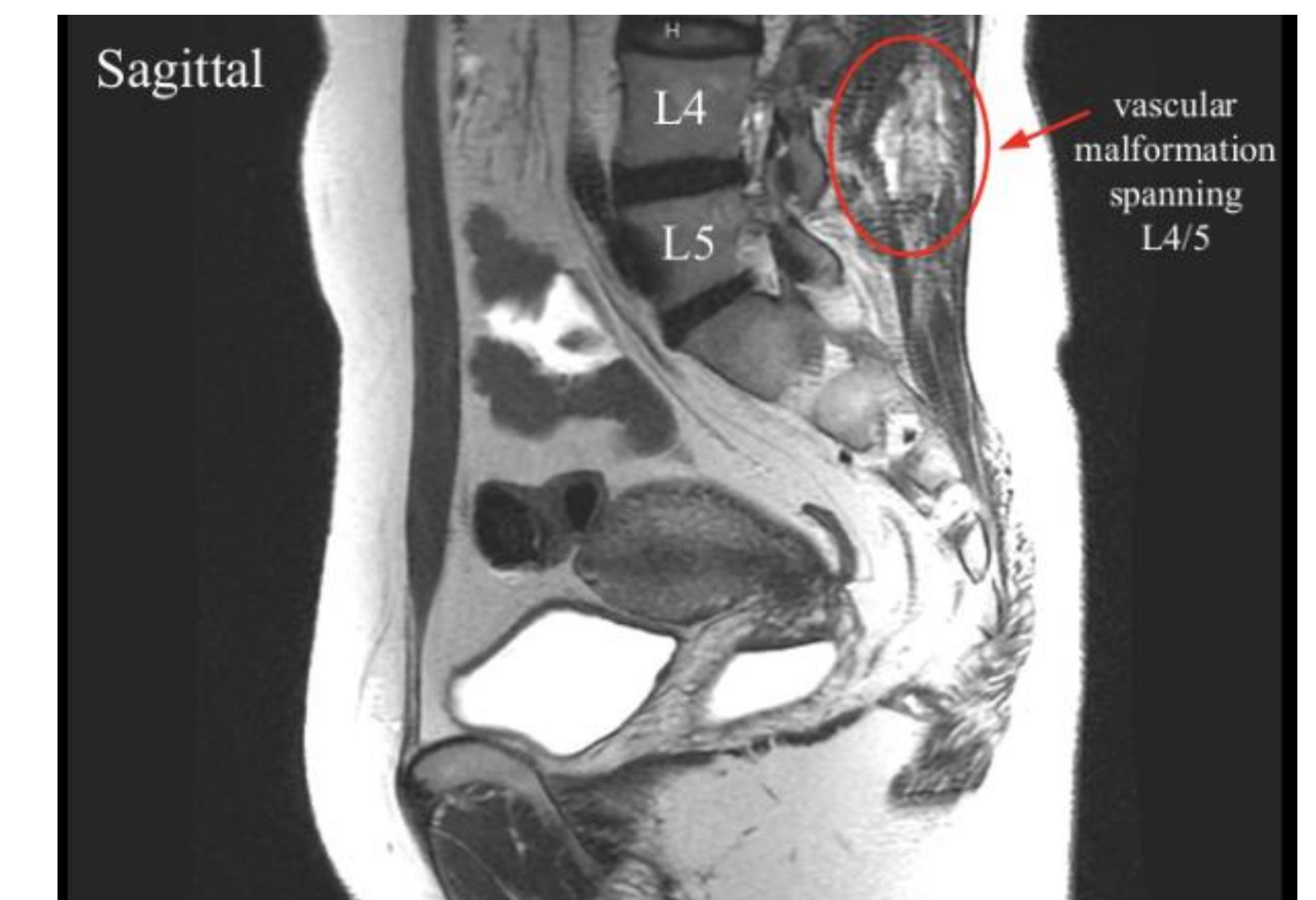
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PATIENT MANAGEMENT:

- The OB anesthesia team first learned of these VMs upon chart review
 - Patient was in labor and experiencing painful contractions
 - Pre-pregnancy pelvic MRI demonstrated large and bilateral paraspinal VMs at L4/5, with prominent midline vessel
- A dedicated spine MRI was not feasible with the patient in labor
- Neuraxial contraindicated without imaging to evaluate lumbar spine
- Labor Analgesia: nitrous oxide → remifentanyl PCA
 - Pain scores improving from 9/10 down to 4-5/10 prior to vaginal delivery



Pelvic MRI (pre-pregnancy): L4-5 VMs, axial (top) and sagittal views (bottom)



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CONCLUSIONS and TEACHING POINTS:

- 2nd trimester high-risk OB anesthesia consultation can optimize safe delivery planning and improve patient experience
- This patient would have significantly benefited from pre-delivery imaging, planning and shared decision making
- Remifentanyl PCA is a moderately effective and safe method for labor analgesia when neuraxial procedures contraindicated
 - Inferior to epidural for pain relief
 - Resource intensive



REFERENCES:

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Remifentanyl PCA

- ✓ remifentanyl (ULTIVA) 2,000 mcg in dextrose 5% 30 mL (66.667 mcg/mL) PCA syringe
IV, continuous, Starting today at 2330
PCA Demand Dose (mcg): 20
Lockout Interval (minutes): Other
Lockout Interval Other (minutes): 2
Continuous Infusion Dose (mcg/hr): 0