Anesthetic Approach for elective C-Section for a Patient with Developmental Venous Anomaly

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Developmental Venous Anomaly

- Most common cerebral vascular malformation (60%)
- Can be associated with cavernous malformation (CM)
- Conservative management

RISK OF HEMORRHAGE

- Estrogen
- Progesterone
- VEGF
- NGF
- CO, BV

Risk of hemorrhage from CM is not changed during pregnancy, delivery, or postpartum

Clinical Case

HPI: 31 yo F, GSP3 with R pontine DVA, h/o recurrent ICH for elective CS

Neuro:
- L-sided weakness
- L-sided paresthesia, numbness
- L-sided HA
- Dizziness
- Sluggish speech and forgetfulness

MRI: stable R pontine CM

DVA + CM

isolated

asymptomatic

symptoms, growth
### Multidisciplinary Approach

**OB**
- VD vs CS

**Anesthesia**
- GA vs NA
  - hemodynamic instability with GA
  - increased ICP with GA
  - gradual sympathetic block with epidural

**Neurology**
- elective CS under epidural anesthesia
- maintain SBP of <120 mmHg

### Neuraxial Anesthesia

- Difficult advancement of the catheter
- New R ear and UE numbness
- R Horner’s syndrome
- Hypotension

**STROKE ?**
- Patchy block
- High sensory
- Minimal motor
- Hypotension

**SUBDURAL BLOCK ?**
- Horner’s syndrome
- Trigeminal nerve palsy
- HA
- Apnea

### Management of Subdural Block

- No benefit of radiologic confirmation
- Reassure patient
- Labor vs CS?
- Emergent vs Elective?

Pull out catheter and convert to...

**General**
- Bradycardia with succinylcholine

**Epidural**
- Difficult placement

**Spinal**
- High level

- **After 6 hours: uneventful spinal anesthesia for CS**
Conclusion: Considerations for DVA

- Isolated or associated with other vascular abnormalities
- Ongoing neuro symptoms
- Imaging: changes in size
- Multidisciplinary approach
- Hemodynamic stability during CS
- Epidural anesthesia provides gradual sympathetic blockade

References: