Management of a Parturient with Cerebral Palsy and a VP Shunt with Seizure Immediately Following Spinal Anesthesia for Cesarean Delivery

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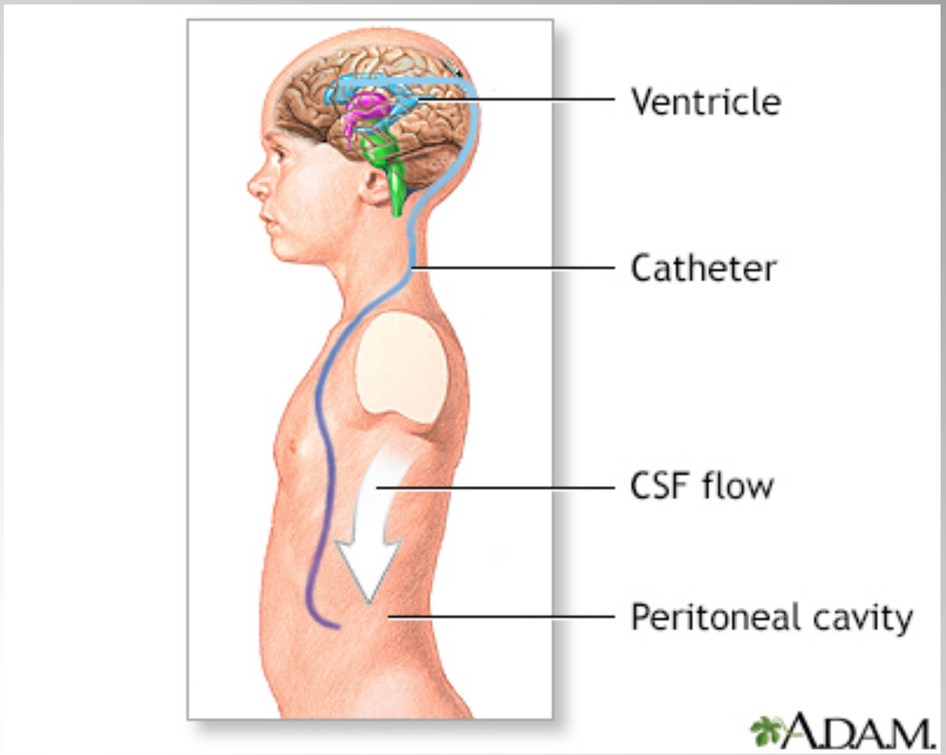
- Cerebral Palsy: a range of symptoms usually stemming from peripartum brain injury
  - Symptoms can include seizures, neuromuscular dysfunction, paralysis, swallowing impairment, scoliosis, chronic lung disease, etc.
- Hydrocephalus: common and managed with a VP shunt
  - Should be evaluated for location and function prior to neuraxial anesthesia
  - Neuraxial generally carries minimal risk



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- 33yo G1P0 at 37w+0d for scheduled c/s due to fetal macrosomia and maternal comorbidities of CP, HTN, asthma, OSA and epilepsy (last seizure 3 months prior)
- Functioning VP shunt with appropriate NSGY and neurology follow up and clearance for neuraxial anesthesia
- On presentation, patient at neurologic baseline and spinal performed in OR with OB bedside; no untoward events and vitals stable with BP 150/90, HR 110s and SpO2 100%
- After lying supine, SpO2 decreased to 90% and she became unresponsive
- Bag mask ventilation attempted while preparing for intubation with little improvement and noted clenched jaw
- SpO2 to 85%, FHTs to 60s, and emergent c/s of live infant immediately following intubation and GETA; during which time vitals stable
- Extubated and taken to PACU where prolonged confusion prompted neurology consult
  - Per neurology: likely seizure versus psychogenic event with breath holding
- Neuro status to baseline after 24h, EEG without epileptiform activity, CT head unchanged
- POD1 patient diagnosed with atypical Pre-E and started on magnesium

Discussion

- CP envelopes a wide range of sequelae, all of which effect anesthetic plan and can increase case complexity
- Spinal anesthesia can be safely performed in patients with functioning VP shunt
- Through neuraxial is ideal, co-morbidities, clinical acuity, seizures, and eclampsia can necessitate GETA
- Multidisciplinary communication is critical in complex cases and acute scenarios for optimal maternal and fetal outcomes

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