SOAP 2023
ANNUAL MEETING

Intracranial Hemorrhage in a Viable Parturient with Cesarean Section Delayed 33 Days

MUSC Health
Medical University of South Carolina

Julie Chedister MD, Joel Sirianni MD, Jeff McMurray MD, Victoria Bailey MD, David A. Gutman, MD, MBA

- A 29 year old G1P0 woman at 27 weeks presented to the emergency department following acute onset of headache, nausea and vomiting. She became bradycardic, hypertensive and unresponsive with GCS 3 upon arrival requiring intubation
- CT scan demonstrated moderate IVH with a space occupying lesion in the posterior fossa with brainstem compression
- Emergent treatment included extraventricular drain, hypertonic saline, angiogram and embolization for ruptured PICA aneurysm followed by suboccipital decompressive craniectomy on POD 1 and repeat embolization on POD 4

SOAP
Society for Obstetric Anesthesia and Perinatology

SOAP 2023
ANNUAL MEETING

Intracranial Hemorrhage in a Viable Parturient with Cesarean Section Delayed 33 Days

MUSC Health
Medical University of South Carolina

Figure 1. Initial CT Head demonstrating intraventricular and scattered subarachnoid hemorrhage.

- Her neurologic examination improved but she developed seizures requiring burst suppression.
- Co-management by neurosurgery and maternal fetal medicine ruled out eclampsia. Fetal non stress tests and biophysical profiles were reassuring. Cesarean delivery was delayed given her critical status and gestational age.
- She was treated with magnesium and betamethasone for fetal neuroprotection and lung maturity, intermittent mannitol and hypertonic boluses to assist with intracranial pressures, and tracheostomy.
- On POD 33, at 31 weeks 5 days, she went into preterm labor. Breech presentation, thin lower uterine segment, and fetal intolerance prompted delivery via emergent cesarean section.

SOAP
Society for Obstetric Anesthesia and Perinatology

Intracranial Hemorrhage in a Viable Parturient with Cesarean Section Delayed 33 Days

MUSC Health
Medical University of South Carolina

- Timing of delivery in maternal IVH is complicated and requires a multidisciplinary team to balance fetal and maternal considerations.
- IVH treatment exposes the fetus to radiation, induced hypotension, hyperventilation, heparinization, and antiepileptics while the physiologic changes of pregnancy may worsen aneurysmal bleeding.
- Due to maternal instability, high intracranial pressures and poor clinical status, emergent ventricular drainage, embolization and surgery were pursued while maintaining pregnancy for further fetal development.
- These scenarios must also include discussions of intraoperative fetal monitoring and decisions regarding suspending an intracranial procedure for emergent delivery.