Background:
- Postoperative diabetes insipidus (DI) can complicate up to 75% of suprasellar operations.
- DI typically develops within 24 hours of neurosurgery or head injury and therefore anesthesiologists are rarely the first provider to diagnose and treat it.
- We present a case in which a neonate developed acute onset DI while undergoing an endovascular embolization of an intracranial arteriovenous malformation (AVM) and its proposed pathophysiology.

Presentation:
- Previously healthy 4 week old male presented to the ED with fussiness and possible seizure activity.
- Head CT scan (Figure 1) demonstrated a large ruptured AVM in the left temporal lobe with extensive intraventricular hemorrhage, obstructive hydrocephalus and transtentorial herniation.
- Emergent EVD was placed and on postoperative day 2 he presented for endovascular embolization of the AVM.

Case Description:
- The patient was induced and intubated without incident in IR suite.
- Several hours into the procedure the patients urine output abruptly increased to approximately 20-30mL/kg/hr.
- Intraoperative laboratory evaluation showed a urine specific gravity of 1.010, urine sodium of 54, urine osmolality of 137, serum osmolality of 305, serum sodium of 154.
- A vasopressin infusion was started. The AVM was successfully embolized but the procedure was complicated by unintentional embolization of the left posterior cerebral artery (PCA)(Figure 2).

Discussion:
- In this case report, we describe how embolization of the left PCA may have led to acute hypothalamic ischemia resulting in dysfunction of ADH production/regulation.
- Although intraoperative development of DI is rare, it is imperative that the anesthesiologist be familiar with its diagnosis and management due to the severe metabolic derangements that can result from delayed diagnosis.
- Many clinical symptoms of DI are masked under general anesthesia so diagnosis is reliant on close monitoring of fluid balance and laboratory evaluation.

References: