Refractory Postpartum Hypertension and Status Epilepticus Following Eclampsia with PRES

Hanna Campbell, MS-3; Lauren Yacobucci, MD; Katherine Hatter, MD; Eliza McElwee, MD
Department of Obstetrics and Gynecology, Department of Anesthesiology and Perioperative Medicine

Background

Eclampsia

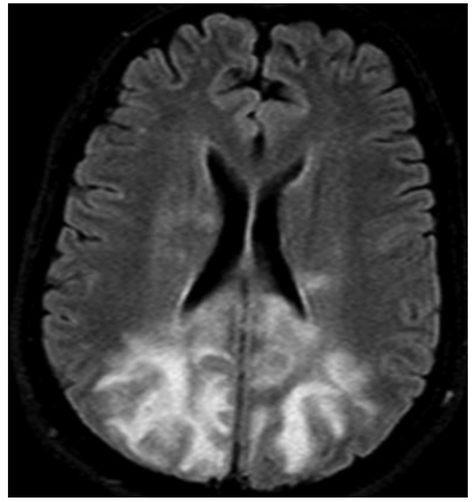
New onset generalized seizure in a patient with preeclampsia (prevalence 1-2% of pregnancies complicated by preeclampsia)
Typically managed with urgent delivery

Posterior Reversible Encephalopathy Syndrome (PRES)

Neurological condition caused by **vasogenic edema** in the posterior brain regions **due to failed autoregulation of blood pressure**
Managed with control of severe hypertension

Status Epilepticus

A single seizure episode **lasting >5min** or **multiple seizures occurring together** without return to baseline in between



MRI with PRES

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25yo G1P1 at 29w2d with scant prenatal care presented to an outside hospital after a generalized tonic clonic seizure and found to have severe range (>160/110) blood pressures

Prior to Transfer

- IV labetalol (20mg → 40mg)
- Head CT with bilateral occipital edema consistent with PRES
- Underwent emergent Cesarean delivery under general anesthesia
- Unable to be extubated due to nonsecure airway secondary to status epilepticus, requiring postoperative ventilation
- Levetiracetam initiated as well as an unknown benzodiazepine

Following Transfer

Post Op Day 0

arrived to MUSC and placed on **continuous EEG** monitoring

Upon arrival patient was **mechanically ventilated** and sedated on a **propofol** (5-100 mcg/kg/min), **magnesium** (2g/hr), and **nicardipine** (5-15mg/hr) **infusions.**
·Neurology and OBGYN were consulted

Post Op Day 2

patient was **successfully extubated** and **weaned off propofol drip**

followed by **recurrence of severe range blood pressures** (>160/110) **requiring IV Hydralazine and Labetalol.**

Further complicated by complaints of **SOB**; Chest X-ray showed **pulmonary edema** requiring 5-day course of furosemide

Post Op Day 3

Transferred out of the ICU

to the postpartum Mother-Baby Floor

Post Op Day 4-6

she had frequent **hypertensive episodes** requiring **up titration of oral labetalol to 2400mg**

Post Op Day 7

Discharged home

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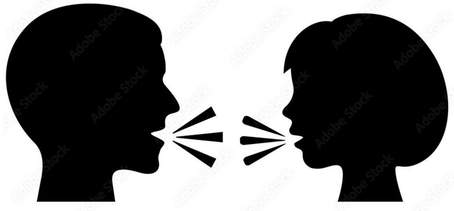
Discussion



Propofol serves as an effective agent for seizure suppression and sedation during ventilation. However, it may mask severe hypertension

Propofol enhances inhibitory GABA neurotransmission leading to reduced sympathetic tone

⬇ Sympathetic tone = Venodilation (⬇ Preload = ⬇CO) and Vasodilation (⬇ SVR).
Net effect on BP = Decreased (CO * SVR)

Artificial blood pressure suppression may occur, and Propofol wean can result in rebound hypertension if not otherwise adequately controlled.
Increases the risk of recurrent PRES, stroke, or other cardiopulmonary complications

Important to anticipate hypertension in patients coming off propofol sedation and be prepared for quick action to prevent complications