

## Presentation

- Previously healthy newborn re-evaluated at 28 hrs of life before discharge and noted to have jerking movements and eye deviation to the left
- Pregnancy history: pregnancy induced hypertension, premature rupture of membranes for 24 hrs, prenatal labs negative
- Precipitous, spontaneous vaginal delivery
- Apgar scores of 4 and 8 at 1 and 5 minutes, no additional resuscitation required

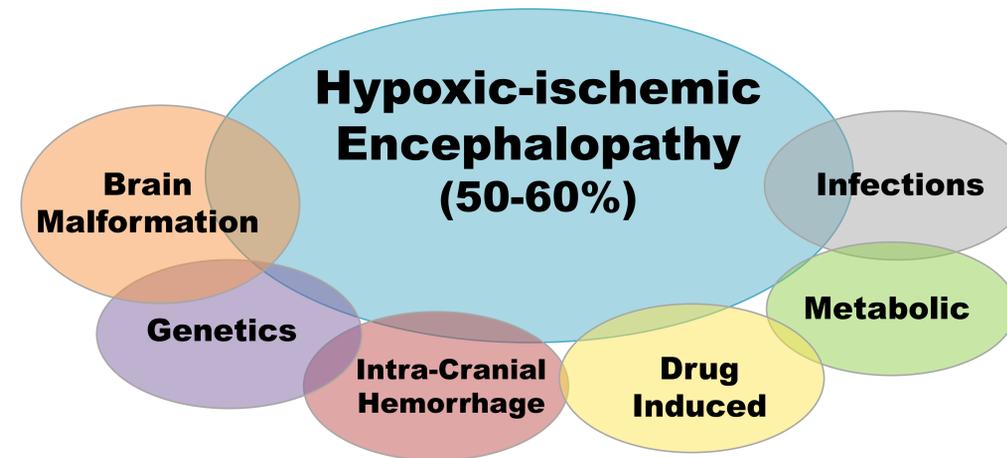
## Physical Exam

- 38 weeks gestation, birth weight 3005g, AGA
- PE: alert and active infant, pupils reactive to light, no lesions of the oral cavity or pharynx, normal head size/configuration, anterior fontanelle flat/open/soft, open suture lines
- Rhythmic movements of left lower extremity that persisted in spite of holding, bilateral eye deviation to the left for 5-10 seconds, and perioral pallor
- Remainder of physical exam normal
- While in nursery for observation: 3 additional seizures with facial twitching, dropping of jaw, oxygen desaturation of 82%.

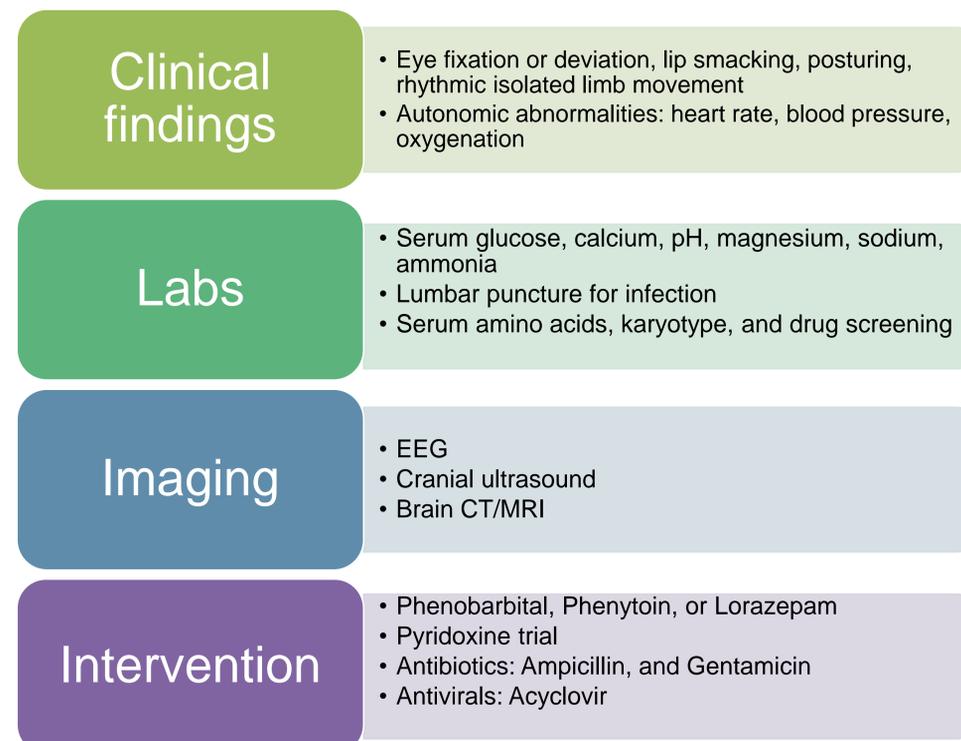
## Clinical Course



## Causes of Neonatal Seizures



## Work-up/Management



## Results

- CBC with 73.7% neutrophils
- Serum glucose 49
- Rest of lab work unremarkable
- Head ultrasound: normal sized ventricles and no intracranial blood products
- Transferred to tertiary care center for further evaluation

## Discussion

- Each newborn exam must be thorough and meticulous at every encounter
- Most common clinical finding of neonatal seizures is ocular movements: roving eyes, eye fixation, horizontal eye deviation, and unresponsiveness.
- Other findings are lip smacking, posturing, rhythmic isolated limb movements, alterations in autonomic functions
- Epidemiology: 0.5% term and 20% preterm newborns.
- Neonatal seizure mortality rate: 15% in term and 60% in preterm newborns
- Long term consequences: epilepsy, cognitive disability, and motor deficits
- Factors for prognosis: Apgar scores, need for ventilation, EEG results, and imaging findings (ultrasound, MRI, CT)
- Timeliness of recognizing the seizure, proper work up, and consultations could improve the infant's quality of life and prevent long term complications

### Resources

1. Mosley, Mehran. "Neonatal Seizures." Pediatrics in Review. 01 Mar. 2010. American Academy of Pediatrics.
2. Hill, Alan. "Neonatal Seizures." Pediatrics in Review. 01 Apr. 2000. American Academy of Pediatrics.
3. Olson, D. M. "Neonatal Seizures." NeoReviews, vol. 13, no. 4, Jan. 2012, doi:10.1542/neo.13-4-e213.
4. Gillam-Krakauer, M., and B. S. Carter. "Neonatal Hypoxia and Seizures." Pediatrics in Review, vol. 33, no. 9, 2012, pp. 387-397., doi:10.1542/pir.33-9-387.