

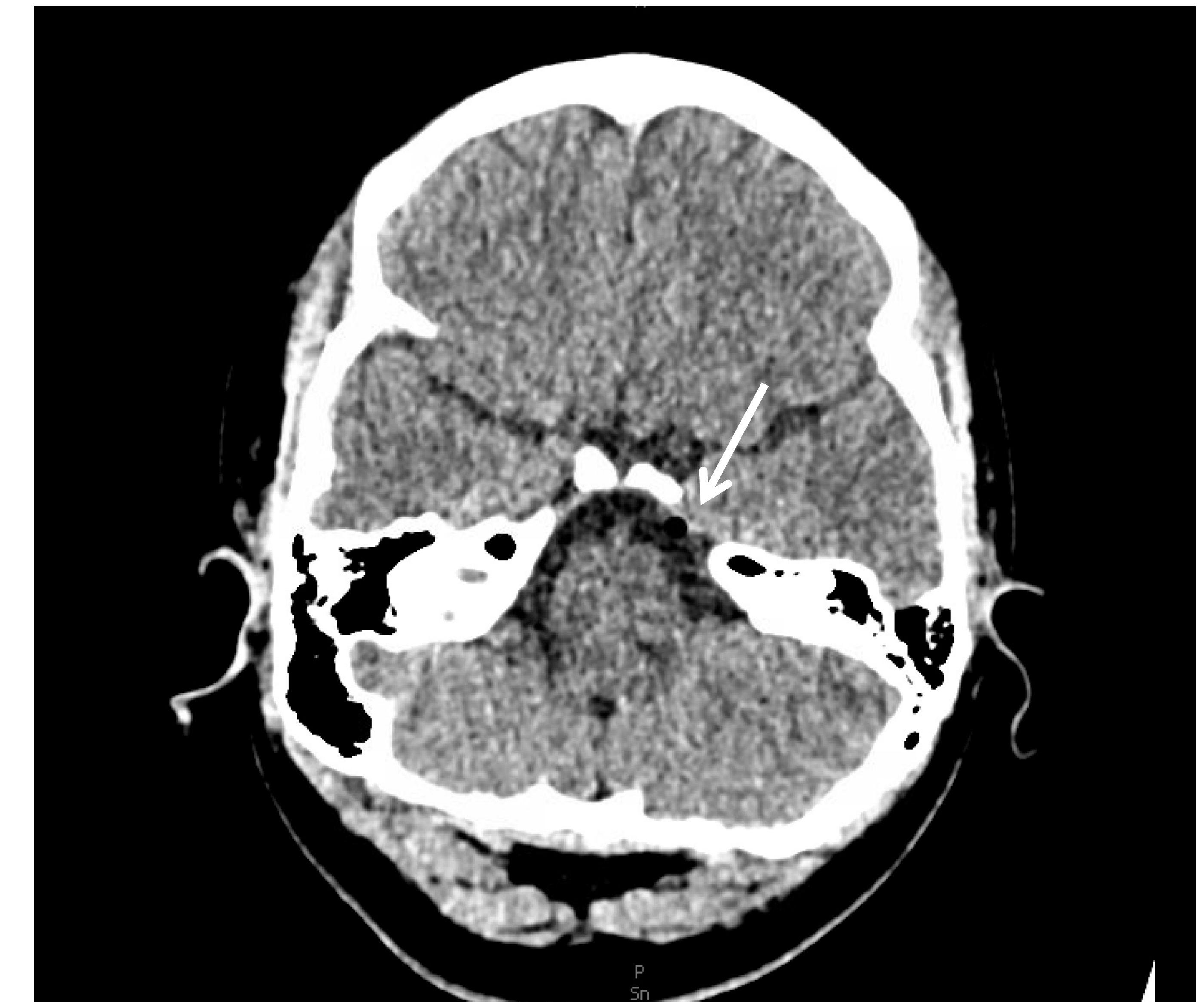
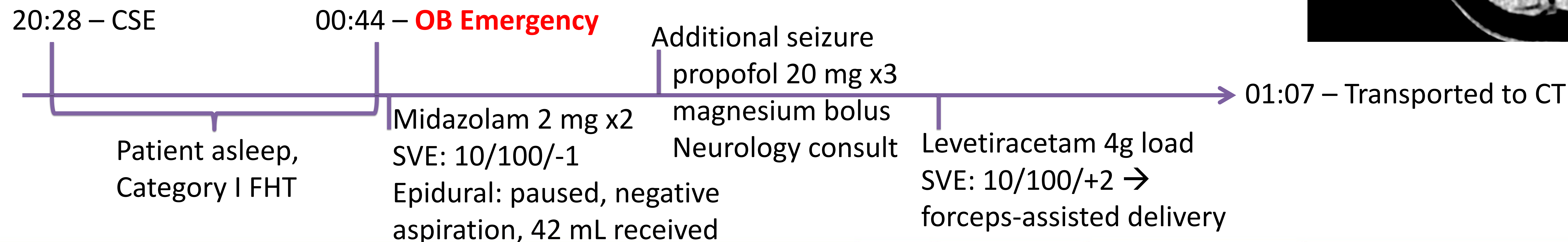
Psychogenic Non-epileptic Seizure in the Differential Diagnosis of Peripartum Seizure

Jacob Nieb MD, Matthew Hire MD

Section of Obstetric Anesthesiology, Department of Anesthesiology, Northwestern Memorial Hospital

Case Presentation

- 19-year-old G1P0 at 40w2d
- **PMH:** VSD (spontaneous closure), asthma, IDA (Hgb 11.1 on admission), mild GERD
- **Anesthetic Plan:** CSE (initial attempt at L4-5 without engagement in ligament, uncomplicated placement at L3-4)
 - IT dose: fentanyl and 0.5% bupivacaine
 - No test dose (supply chain)
 - PIEB with fentanyl 2 mcg/ml-bupivacaine 0.0625%



Differential Diagnosis

Laboratory Studies

Coagulation: PT 11.3, aPTT 26.5, INR 1, fibrinogen 373, **D-dimer 639**

ABG: 7.36/32/126

CBC: plt 177, Hgb 10.2

CMP: all within normal limits

Lactic Acid: 2 → **2.7** → 1.9

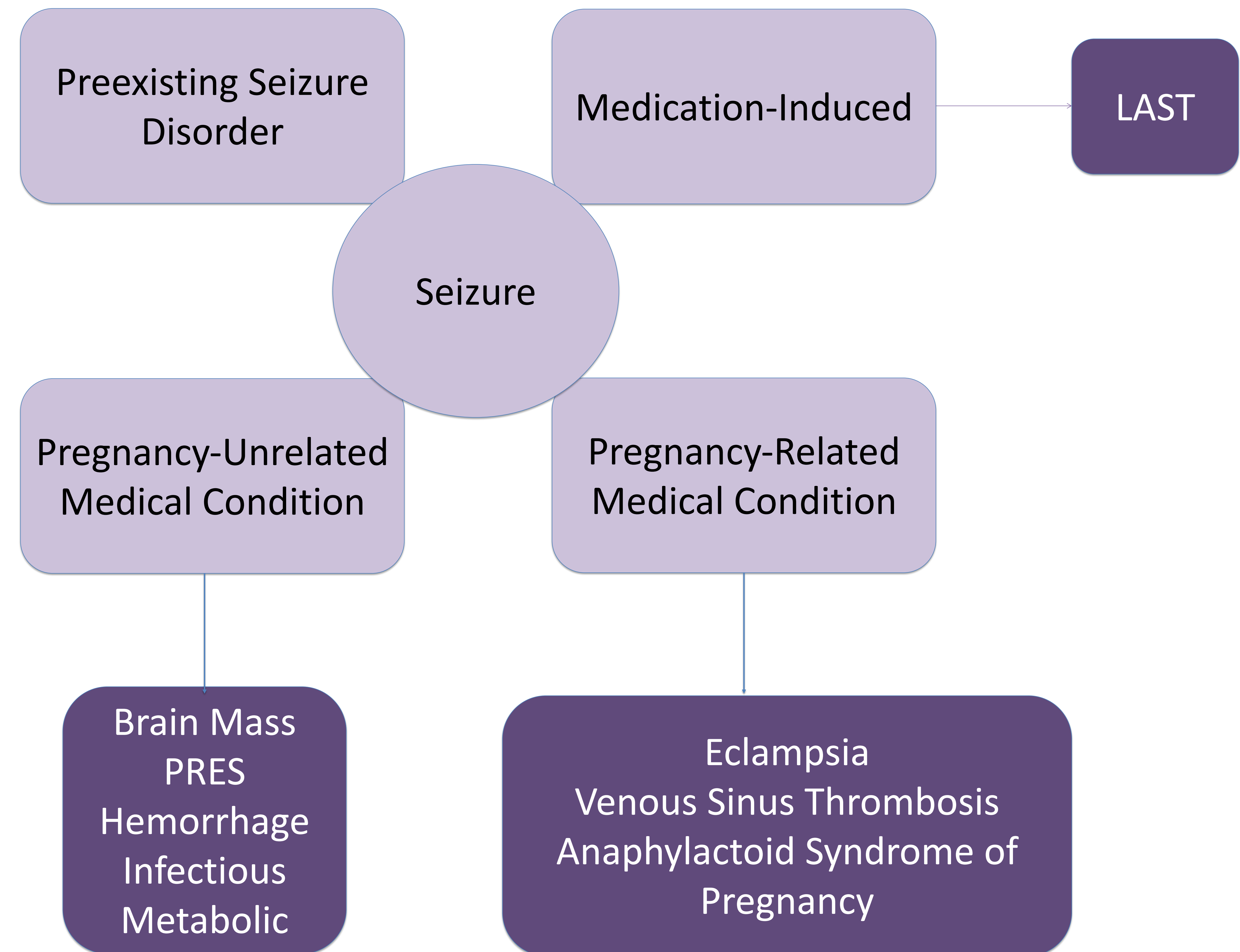
Urine studies: Cr 14.1, protein <4 (UPC below level of detection)

Imaging

CTA Head, Carotid: no flow limiting stenosis or dissection; gas in thoracic spinal canal

CT Brain: **pneumocephalus in prepontine cistern**; no acute hemorrhage/mass effect/infarct

MRI Brain: no acute infarct/intracranial hemorrhage/mass effect



Psychogenic Non-epileptic Seizures and the Parturient

- Prevalence: 2-33 cases/100,000; female-predominant¹
- Association with trauma and abuse; can be triggered by stressful situations
- Clinical presentation clues: guarding (e.g. positive hand-drop test), asynchronous contractions, non-stereotypical movements, absent bowel/bladder incontinence, absent tongue biting, failure of antiepileptics to break seizure, short post-ictal period, recall of events¹
- Also have epileptic seizures in 5-10% of people¹
- Diagnosis: v-EEG is gold-standard
- Paucity of studies or case reports involving pregnant women
 - Pregnancy may result in first episode of PNES²
 - Patients may experience increased frequency of seizures with pregnancy²

References

1. Ali S, Jabeen S, Arain A, Wassef T, Ibrahim A. How to use your clinical judgment to screen for and diagnose psychogenic nonepileptic seizures without video electroencephalogram. *Innov Clin Neurosci*. 2011; 8(1):36-42.
2. DeToledo JC, Lowe MR, Puig A. Nonepileptic seizures in pregnancy. *Neurology*. 2000; 55:120-121.