

On the Tip of the Tongue:

Anesthetic Dilemmas for C-Section with Metastatic Cancer

Theresa Nguyen¹, BS; Zoe Baxter¹, BS; Laurie Chalifoux, MD^{1,2}, FASA
Grand Rapids, Michigan

1. Michigan State University College of Human Medicine
2. Corewell Health Department of Anesthesiology

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Patient Presentation

30 y.o. G2P1 at 35.3 with Stage IV SCC presents to the ED for hypercalcemia per oncologist's recommendation

- **PMHx:** Initial dx in 2018, partial glossectomy, dissection, and radiation; recurrence in 2023.
- **SHx:** Prior C/S, spinal fusion (T11-L3), laminectomy L1/L2
- **SH:** Former smoker ~2 years, former vaper

ED Findings:

Vitals: WNL, BP: 142/86

Calcium: 12.1 mg/dL, recheck 11.3 mg/dL

Calcium Ionized: 1.53 mmol/L, recheck 1.56 mmol/L

Vitamin D 1,25 Dihydroxy: 124 pg/mL

PTH: <6.0pg/mL

PTHrP: 7.6 pmol/L

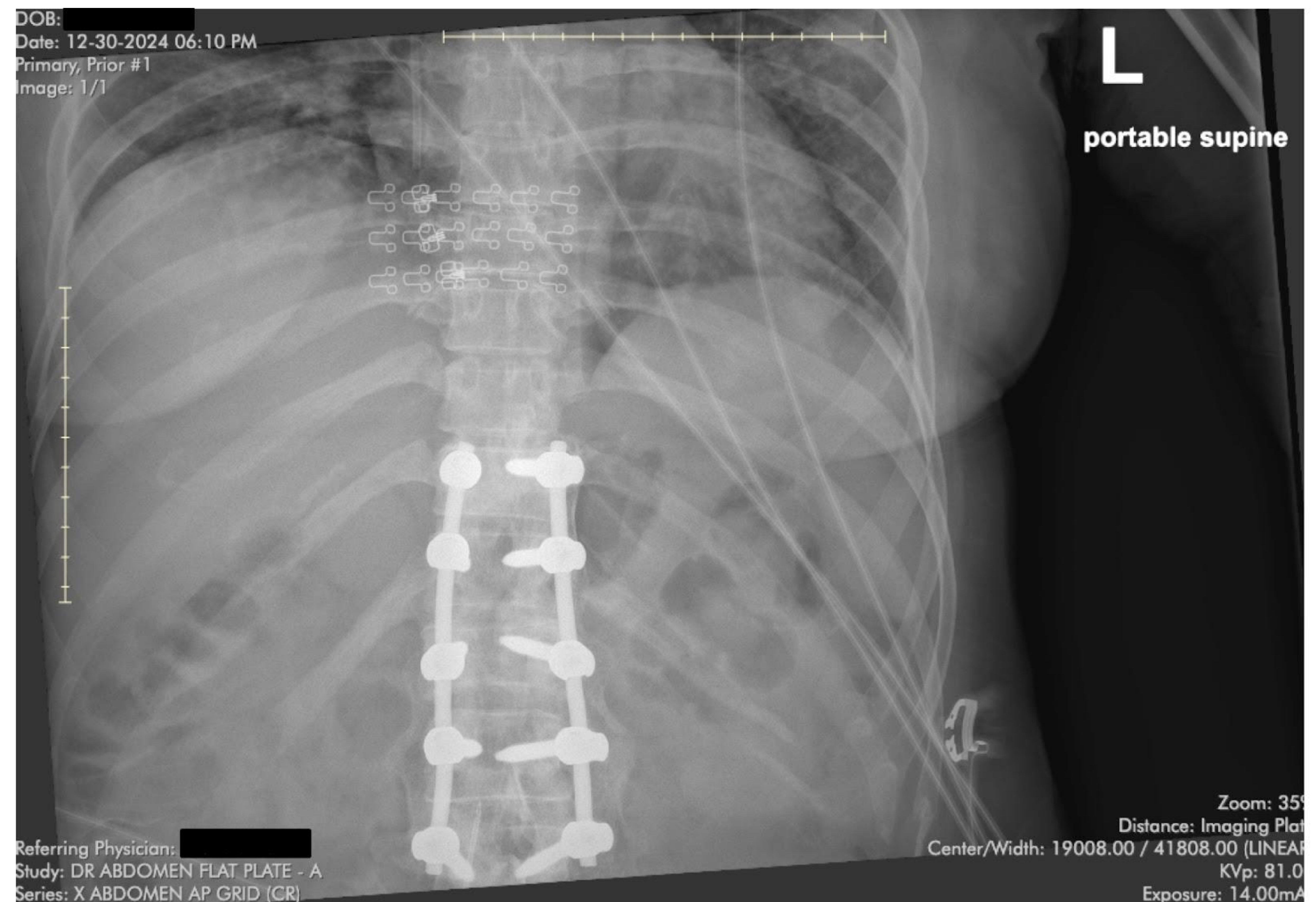


Figure 1. Abdomen Flat Plate- AP showing calcification in the right lower quadrant within the known teratoma.

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Intervention

Anesthetic Decision-Making Process

Stage IV SCC with Difficult Airway + Spinal Fusion

Patient Presentation

- 30 y.o. G2P1 at 35.3 w/ Stage IV SCC of tongue w/ suspicion of worsening metastasis

Goal: CS Delivery + Cancer Tx + Avoid Airway Management

- Multidisciplinary team (Anesthesia, ENT, Oncology)
- Anesthesia evaluation: Difficult airway (Mallampati IV) d/t prior partial glossectomy + radiation; PMHX: T11-L3 spinal fusion

Last Resort:

- Critical risks: difficult/ failed intubation

Preferred Approach: Neuraxial Anesthesia

- Prior successful L4-S5 spinal for CD in 2022
- CSE approach planned

Attempted Technique

- CSE L4-5 interspace (below fusion)

Complication

- Dural puncture w/ 17g Tuohy needle

Adaptation to Complication

- Intrathecal Catheter (ITC) placed through Tuohy Needle

Successful Anesthesia: Medication Protocol

- 10mcg fentanyl
- 1.4mL 0.75% hyperbaric bupivacaine
- 150 mcg morphine PF

Clinical Reasoning

- Avoid highly compromised airway (~1.5 fingerbreadths mouth opening)
- Converting accidental dural puncture to ITC is an established technique
- ITC provides reliable anesthesia w/ reduced PDPH risk

- Combined spinal-epidural (CSE) at L4-L5 to allow epidural dosing if needed
- Limited airway access made intubation a high-risk backup plan
- Procedure was complicated by an unintentional dural puncture, likely due to post-surgical spinal changes
- An intrathecal catheter was threaded and dosed incrementally for surgical anesthesia
- The patient tolerated the procedure well with no complications or post-dural puncture headache

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Discussion

- Tongue SCC can restrict safe airway access, limiting anesthesia options for cesarean delivery
 - Sx + disease progression could have led to more complications had ITC been unsuccessful
- Intrathecal catheter provides reliable anesthesia in patients with spinal complications
 - Allows precise titration to prevent excessive block height and redosing if surgery was prolonged [1].
 - Studies suggest that scar tissue may prolong placement but does not increase difficulty in managing dural puncture [2].



Figure 2. MRI without contrast showing multiple enhancing nodules within the brain highly suspicious for intracranial metastatic disease.

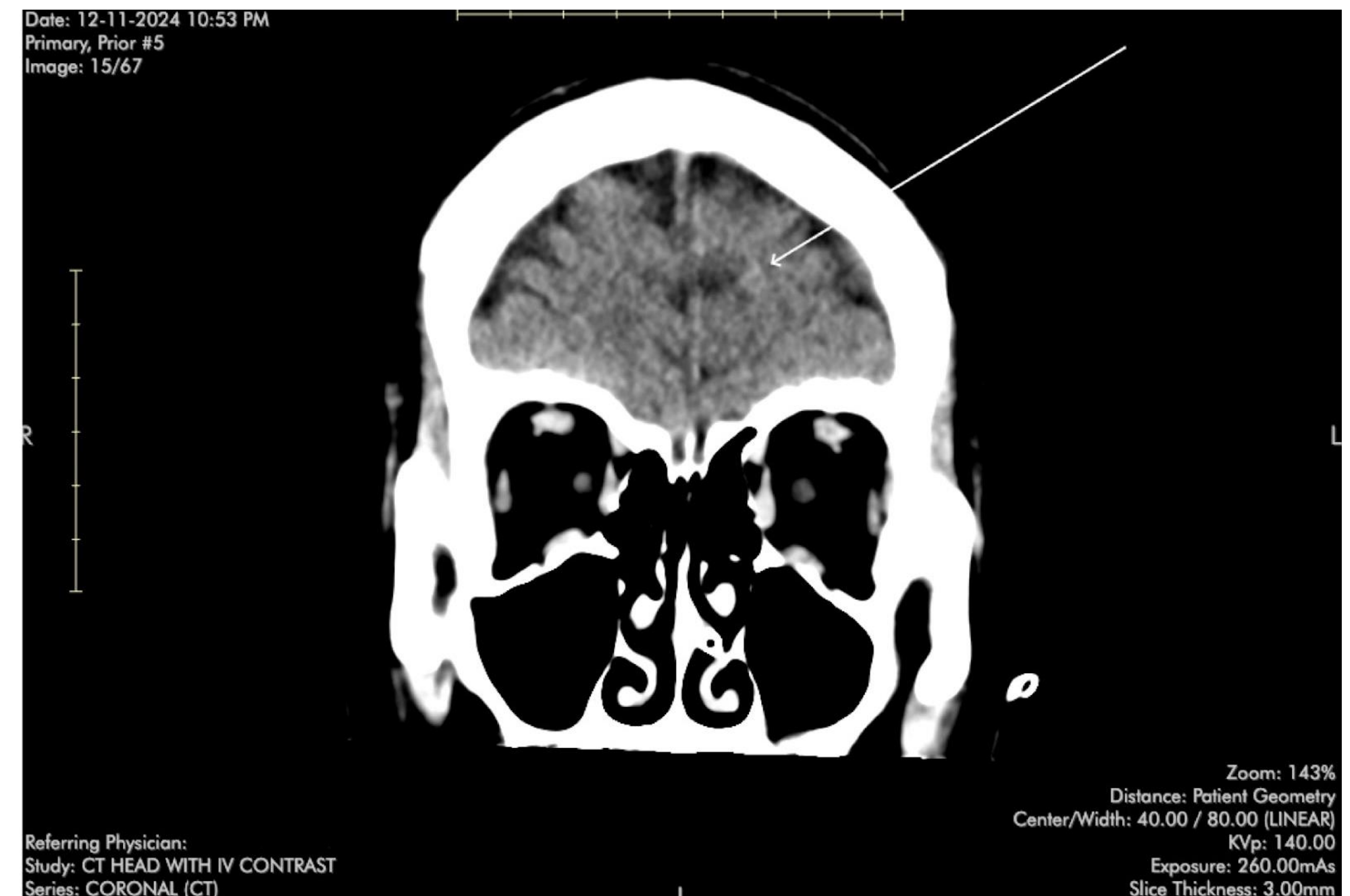


Figure 3. CT head with IV contrast showing attenuation/enhancement of posterior inferiorly in the insula on the right with adjacent edema.

References

1. Griffiths SK, Russell R, Broom MA, et al. Intrathecal catheter placement after dural puncture in obstetrics: guidelines. *Anaesthesia*. 2024;79(12):1348-68. doi:10.1111/anae.16434.
2. Ahsan T, Wang AY, Karimi H, et al. Safety and efficacy of spinal anesthesia in comorbid patients. *World Neurosurg*. 2023;177:e110-7. doi:10.1016/j.wneu.2023.05.116.

Questions?

Contact Information



Theresa Nguyen
Michigan State University
College of Human Medicine
Class of 2027

Email: nguy1410@msu.edu



Zoe Baxter
Michigan State University
College of Human Medicine
Class of 2027

Email: baxterzo@msu.edu