

# Post-partum Headache in Parturient with Difficult Epidural Placement, Preeclampsia, and COVID Positive

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## INTRODUCTION

- Headaches are a common chief complaint in the post-partum period. Approximately 40% of women experience headaches in the postpartum period<sup>1</sup>.
- Many types of headaches having overlapping features which may occur concurrently. This makes differentiation between conditions difficult.
- We present a case of a patient with severe post-partum headache with three different contributing etiologies.

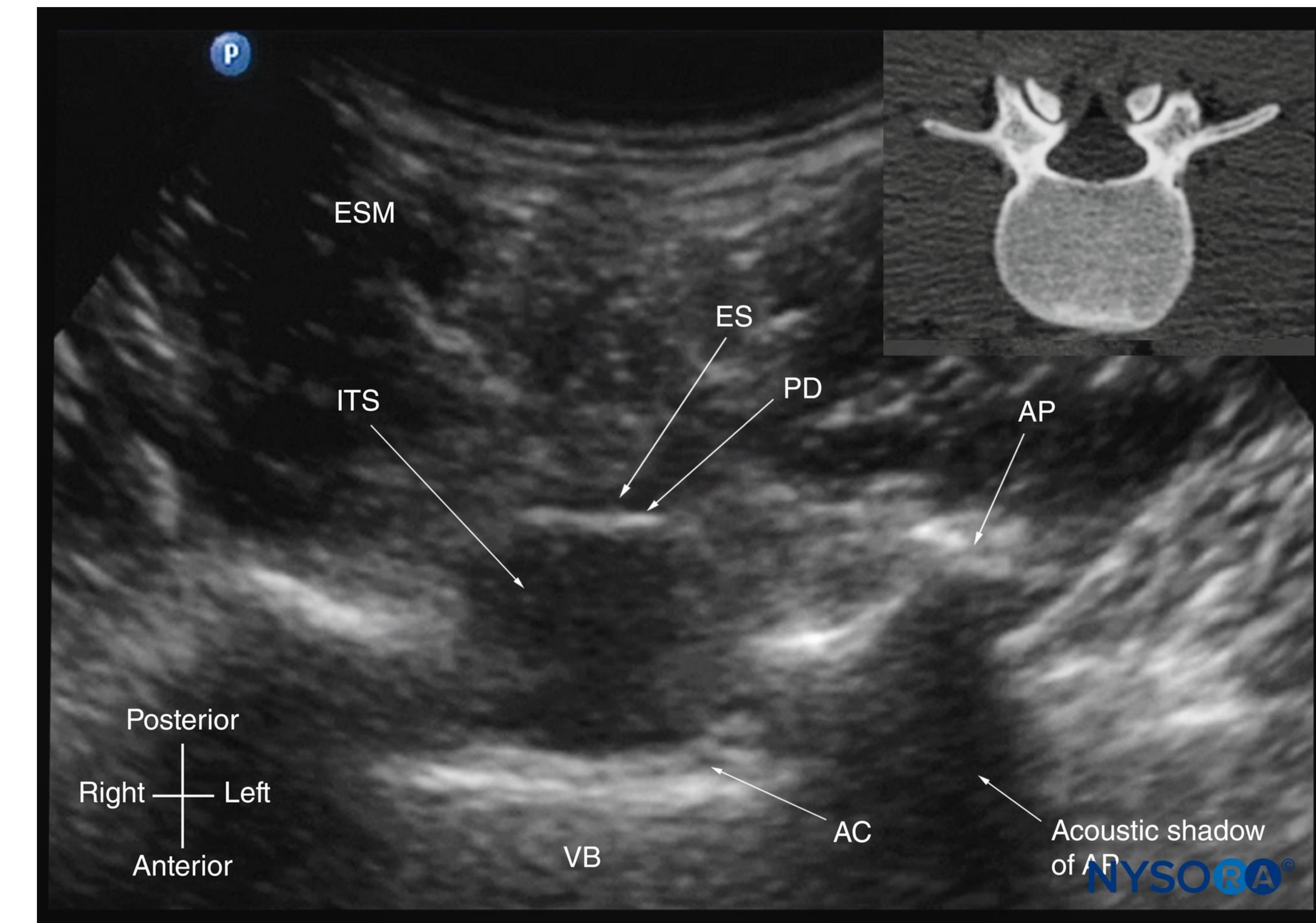
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## CASE PRESENTATION

- 37 y/o G3P1 with a history of difficult epidural placement
  - 5 attempts total by 3 anesthesia care providers by landmark technique
  - Suspected unintentional dural puncture L3-4 at 4cm depth
- Epidural blood patch requested at POD 6 for persistent throbbing bilateral frontal and posterior headaches that were positional
  - Elevated BP 156/74 thought to be anxiety driven
- Ultrasound in transverse view used to assess depth to epidural space ~4cm
- Paramedian approach taken with successful first attempt
  - Resolution of posterior headache but persistent frontal headache not relieved with Trendelenburg
  - Hypertensive with SBP 190-210 c/w preeclampsia with severe features
  - +COVID positive
  - Admitted for IV magnesium treatment



Source: NYSORA

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## LEARNING POINTS

- Based on the International Classification of Headache Disorder, preeclampsia associated headaches should have two out of three characteristics: pulsating, bilateral location, or worsening with activity<sup>2</sup>. Presentation can extend 4 weeks into the postpartum period.
- Postdural puncture headaches are orthostatic headaches caused by CSF leakage through a dural puncture leading to intracranial hypotension causing meningeal traction with gravity.
- COVID-19 related headaches occurs in 6.5-23% of those infected<sup>3</sup>. Suggested pathophysiology of COVID-19 headaches range from indirect (hypoxia, dehydration, inflammatory mediators) to direct binding of virus on ACE2 receptors to gain entry upon neuronal and glial cells<sup>4</sup>.
- Ultrasound imaging is a useful tool for clinicians when evaluating patients for neuraxial techniques.

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