



Inadvertent Dural Puncture Leading to Subdural Hematomas and Persistent Headaches

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BACKGROUND

- Epidurals are commonly performed for labor analgesia, used in over 70% of women, which is anecdotally true in our demographic as well.
- Inadvertent dural puncture (IDP) and resulting post-dural puncture headache (PDPH) is a well-known complication.
- PDPH is often managed conservatively or with an epidural blood patch (EBP) and rarely leads to more serious complications.



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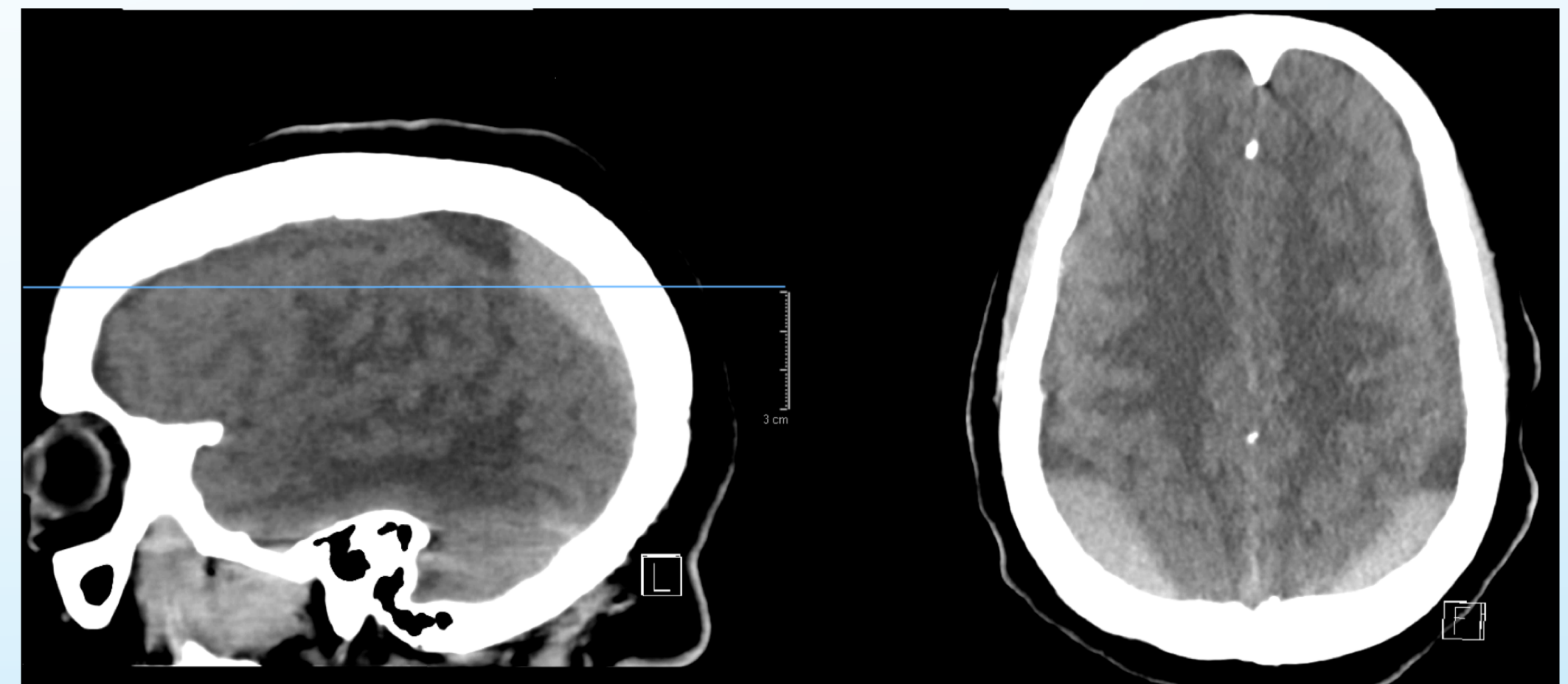
CASE REPORT

PATIENT BACKGROUND: A 25-year-old healthy female underwent attempted epidural placement, leading to an inadvertent dural puncture. The catheter was intentionally placed intrathecally for labor analgesia. After catheter removal, classic PDPH symptoms developed.

INITIAL MANAGEMENT: The patient opted for conservative management after a thorough discussion of the risks and benefits. She initially responded well to caffeine and oral medications.

SUBSEQUENT EVENTS: Her pain persisted and increased in severity, leading to multiple emergency department (ED) visits. Despite repeated discussions with on-call anesthesia providers, she continued to decline EBP.

ACUTE PRESENTATION: Twenty days after IDP, she presented to the ED with severe postural head and neck pain (worse when lying down). Head imaging revealed bilateral SDH with midline shift. She developed bradycardia and hypertension. Decompressive craniostomy was performed, followed by a short, uncomplicated hospital stay.



ONGOING CARE: This patient is under the care of the pain management clinic. Her pain is no longer positional, but headaches and neck tension persist and are resistant to trigger point injections and botulinum toxin injections.



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TEACHING POINTS

- Epidurals are helpful for peripartum anesthesia, but IDP can rarely lead to serious complications like SDH.
- The risk-benefit ratio of preventing SDH and persistent headaches with EBP has not been fully defined.
- Management recommendations and identification of patients at risk for SDH is still needed.
- Intrathecal catheter use remains controversial.
- A multidisciplinary approach, including anesthesiologists, neurologists, and neurosurgeons is crucial for effective management.

Consensus Statement | Anesthesiology

August 15, 2023

Consensus Practice Guidelines on Postdural Puncture Headache From a Multisociety, International Working Group

Uppal V, Russell R, Sondekoppam R, et al.

- Intrathecal catheter insertion → no clear benefit
- Prophylactic EBP → insufficient evidence & patient selection concerns
- Bedrest → inconclusive
- Epidural meds or fluids → not recommended
- IV cosyntropin → insufficient evidence
- Abdominal binders → unsupported