

Treatment and Prevention of Post-Dural Puncture Headache in the Laboring Patient

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Introduction

- Epidurals have a wide array of analgesic benefit
- Possible complications include block failure, hypotension and accidental dural puncture (ADP)¹
- Incidence of ADP is approximately 1.5% with approximately half leading to post-dural puncture headache (PDPH)²
- Epidural blood patch is the gold standard treatment for PDPH²

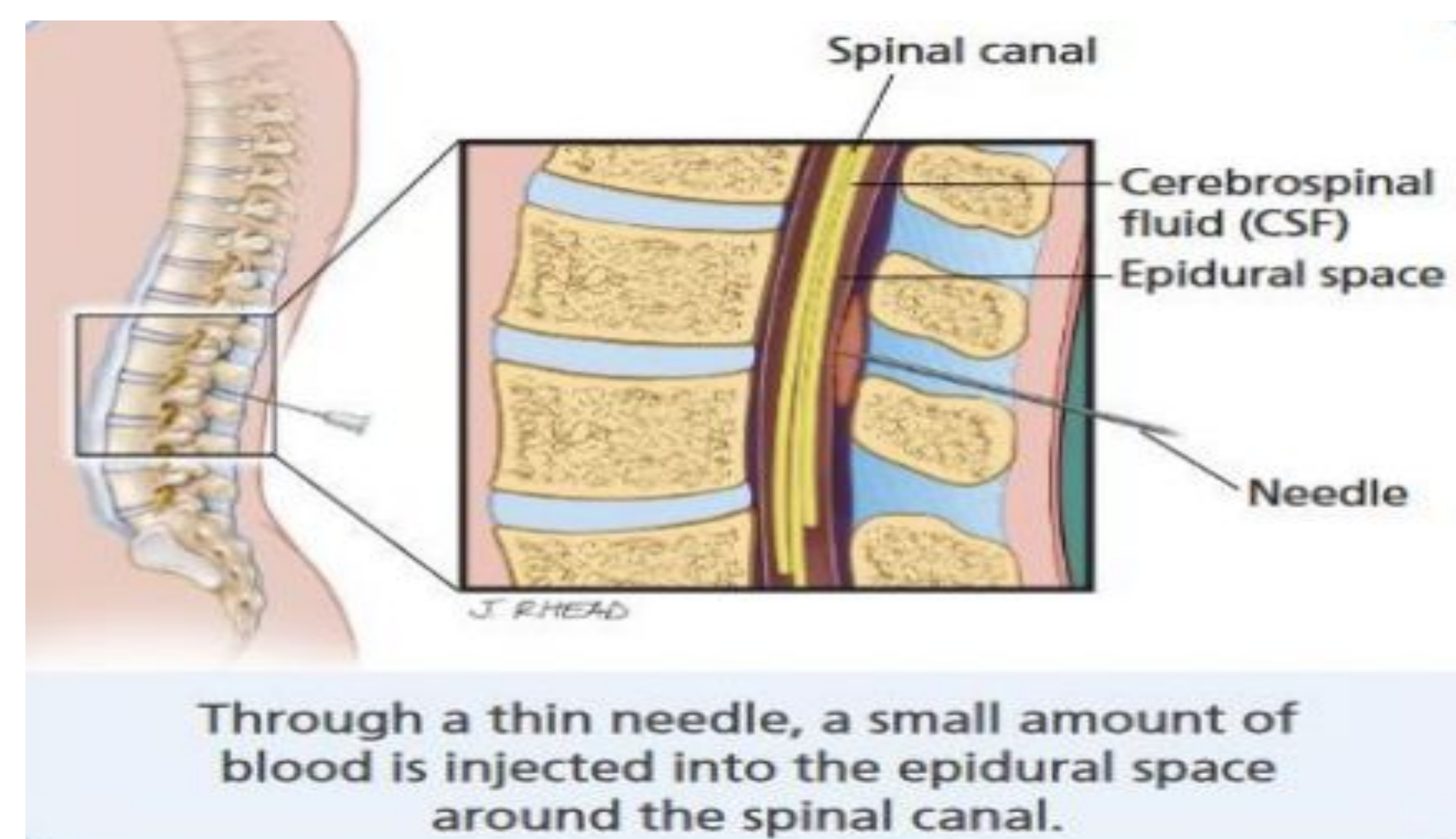


Figure 1: Image of an epidural blood patch placement. Image obtained from West Moreton Health Fact Sheet online at <https://www.westmoreton.health.qld.gov.au/sites/default/files/inline-files/post-dural-puncture-headache-and-epidural-blood-patch-factsheet.pdf>

Case Report

A 38 year old G2P0101 woman with prior medical history significant for cervical insufficiency status post cerclage placement at 13 weeks gestation, presented for neuraxial anesthesia prior to cerclage removal and induction of labor.

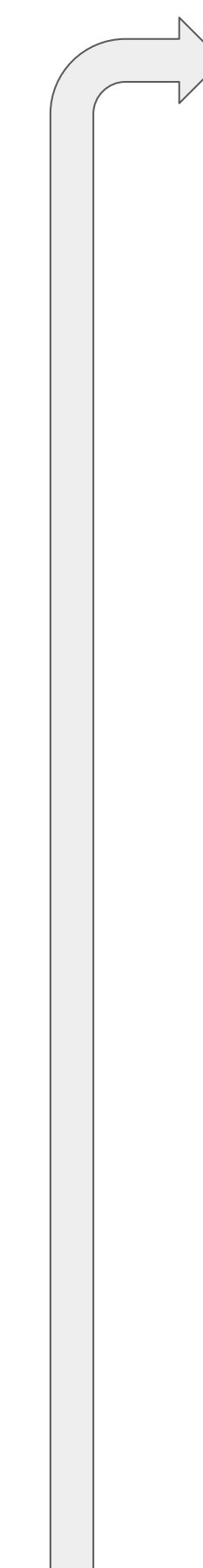
Neuraxial attempt #1:
Intravascular catheter



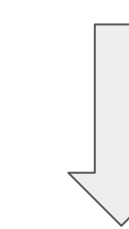
Attempt #2: ADP with
Intrathecal catheter



Attempt #3: Equivocal
ADP, catheter left in place.
Test dose resulted in high
spinal



Attempt #4: Patient recovered. Different practitioner; ADP with catheter left in place intrathecally, cerclage removed, however did not provide adequate level for C-section



Attempt #5: Once neuraxial wore off from prior attempt, spinal attempted for C-section. Inadequate level, and patient opted for general anesthesia. Patient developed PDPH with MRI showing expected CSF leak. She underwent fluoroscopically-guided blood patch with significant improvement of her headache. Headache returned on post-operative day 2, however patient opted for conservative management

Discussion

- Multiple attempts at neuraxial increase risk for ADP and PDPH²
- Intrathecal catheters may decrease the number of attempts, however have risk of high spinal, respiratory failure, and fetal bradycardia³
- Epidural blood patch is the gold standard for treatment of PDPH; fluoroscopic guidance is sometimes needed, with a similar efficacy to landmark guidance⁴

References

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- 3) Orbach-Zinger, S., Jadon, A., Lucas, D.N., Sia, A.T., Tsen, L.C., Van de Velde, M. and Heesen, M.; Intrathecal catheter use after accidental dural puncture in obstetric patients: literature review and clinical management recommendations. *Anaesthesia* 2021, 76: 1111-1121. <https://doi.org/10.1111/anae.15390>
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