

EPIDURAL LABOR ANALGESIA AFTER PRIOR EPIDURAL BLOOD PATCH WITH FIBRIN SEALANT

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INTRODUCTION

As perioperative consultants in a constantly advancing medical environment, we must continue to learn and adapt in order to provide safe obstetric care.

Interventional radiology procedures have become increasingly widespread as non-invasive treatment technologies continue to evolve. Interventions on the spine may have a direct impact on the anesthesiologist's ability to provide neuraxial labor analgesia.

We present a case of a successful labor epidural placement in a patient who had **previously undergone an epidural blood patch with fibrin sealant** placed by Neurointerventional Radiology (NIR) secondary to recurrent spontaneous CSF leaks.

CASE REPORT

37yo G2P0 with history of “**spontaneous intracranial hypotension**” (SIH) causing debilitating positional headaches.

- * CT myelograms indicated that bone spurs at T12-L1 were the cause of recurrent dural tears
- * Pain not resolved after traditional epidural blood patches x2
- * Later referred to NIR at a university facility for further management

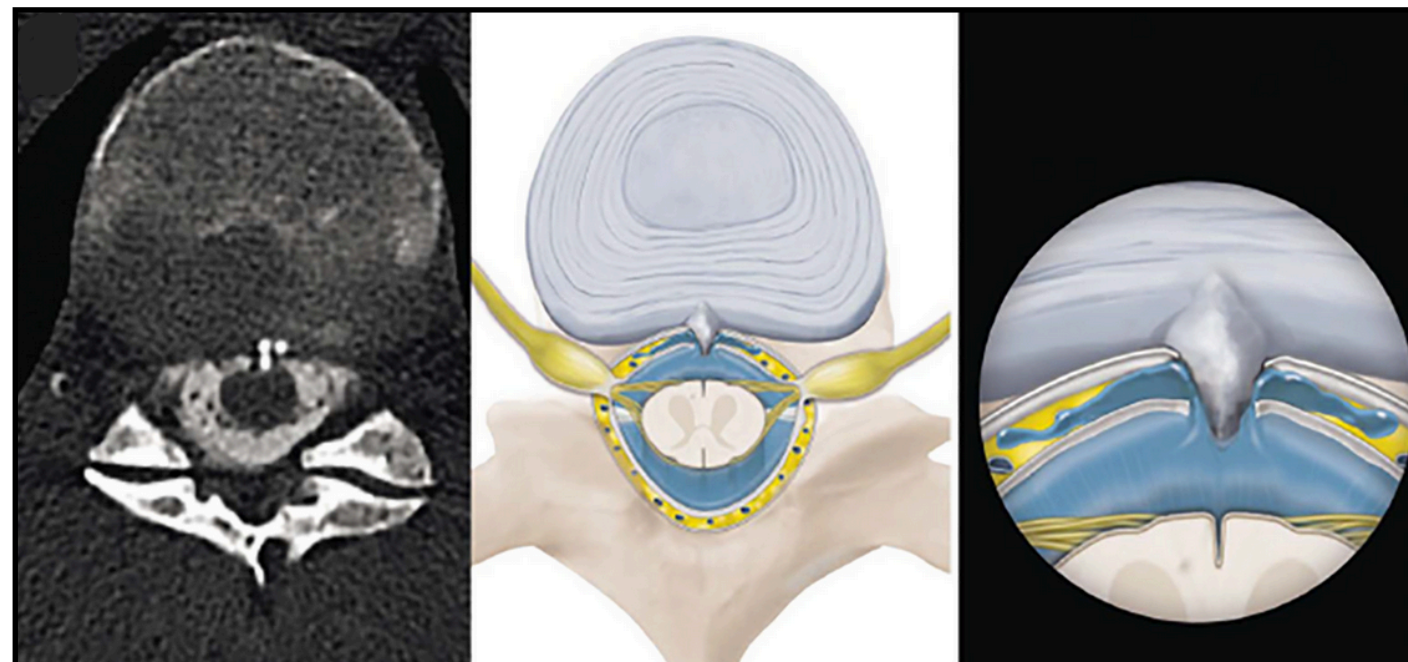


FIGURE DEMONSTRATING MECHANISM OF PATIENT'S CSF LEAK

From: Beck J, Häni L, Ulrich CT, et al. Diagnostic challenges and therapeutic possibilities in spontaneous intracranial hypotension. *Clinical and Translational Neuroscience*. 2018;2(2).

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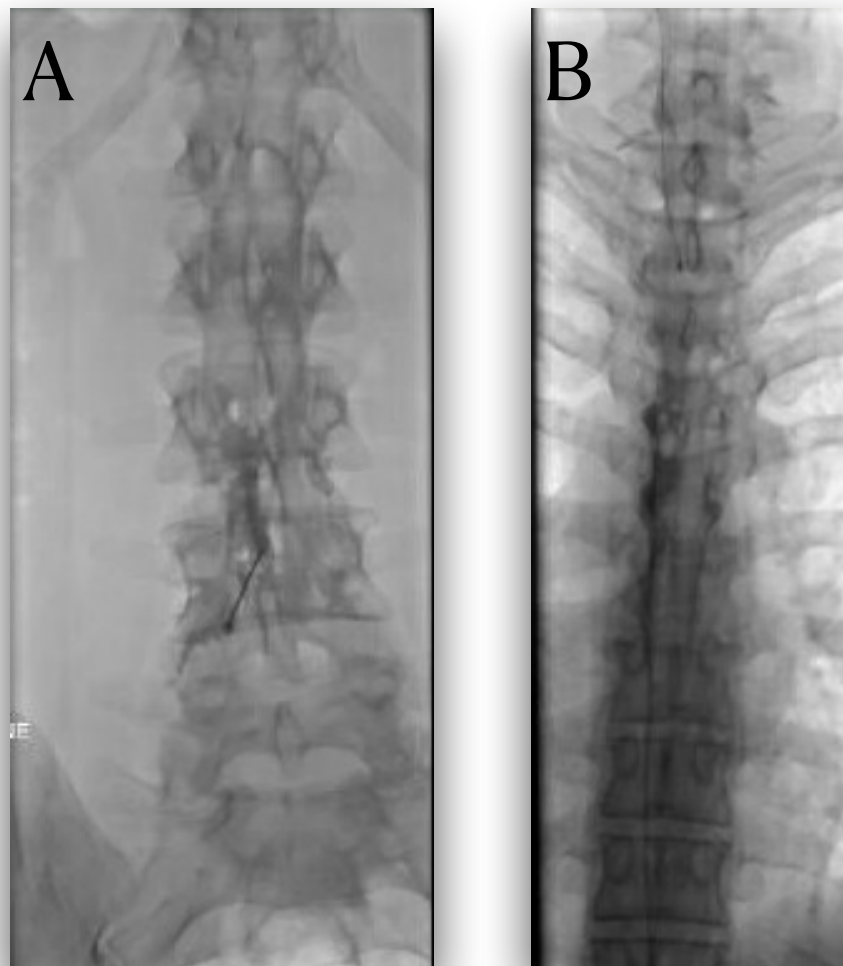
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NEURO IR COURSE

- * Fluoro- guided procedure under GETA
- * Introducer placed at the L3-4 level to thread a 4 French, 100cm vertebral catheter
- * 60 mL of **autologous blood injected through the catheter between C5 to L3**
- * **5 mL of fibrin sealant deposited between the T11 and L1 levels**
- * Successfully closed the CSF leak but did result in rebound intracranial hypertension headaches and papilledema.
- * Responded well to acetazolamide and nortriptyline

ANESTHESIA COURSE

- * 5 years after her NIR blood patch, pt presented to us for planned IOL secondary to gestational hypertension.
- * OB anesthesia consult initiated multidisciplinary planning and discussion of risk/ benefit with the patient
- * **Labor epidural was placed at L3-4 with no complications, providing excellent analgesia**
- * PCEA was utilized, consisting of 0.125% bupivacaine and 2 mcg/mL fentanyl @ 10 mL/hour basal rate + patient boluses
- * Required urgent CD due to persistent category 2 FHT -Epidural in situ successfully dosed for surgical anesthesia with 2% lidocaine with epinephrine 1:200K
- * Postoperatively, the catheter was removed uneventfully



EPIDUROGRAMS FROM BLOOD PATCH PROCEDURE

- Confirming introducer in L3-4 epidural space
- Catheter threaded up to ~T7, enhancement of epidural space to ~C7

DISCUSSION

To our knowledge, there are no case reports of labor epidural catheter placement after a previously performed epidural blood patch with fibrin sealant. Our main consideration was **potential alteration or obliteration of the native epidural space**, with increased likelihood of inadvertent dural puncture or patchy local anesthetic spread and analgesic coverage. While special care was taken during epidural placement given the aforementioned risks, the patient's entire clinical course was unremarkable.

Prior to her OB anesthesia consult, our patient met with her NIR physician who did not feel there were any contraindications to neuraxial labor anesthesia. We were also able to review her outside records and correspond with the NIR team in advance.

This highlights the importance of multi-disciplinary team communication and shared decision making between anesthesia, consulting services and the patient, especially in the setting of an unfamiliar treatment history.