

# Post Dural Puncture Headache and Epidural Blood Patch in a Tetraplegic Patient

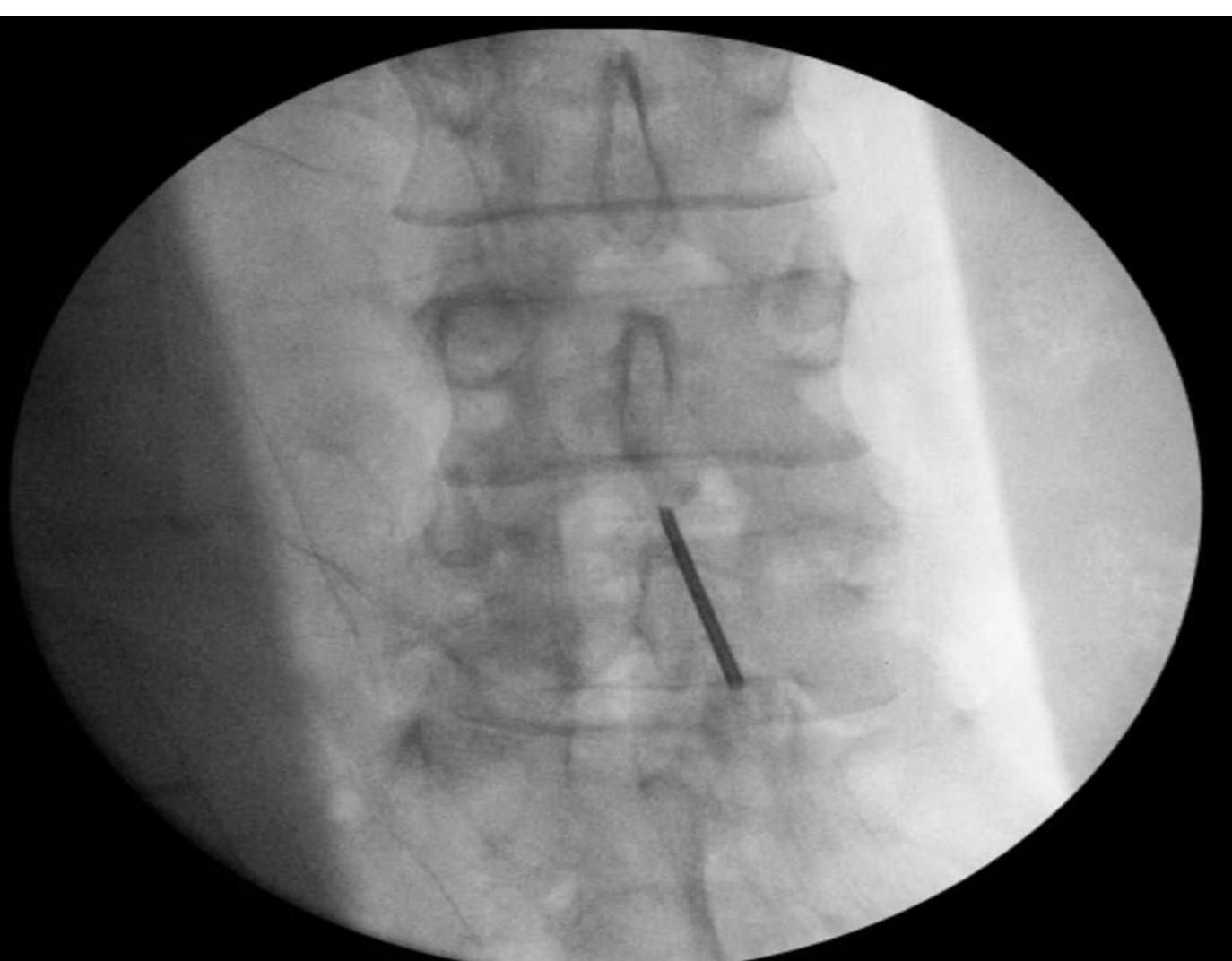
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## Case

JT is a 41 year old man with C5-6 tetraplegia related to a diving injury who underwent an intrathecal baclofen trial after having failed medical management related to spasticity. His injury caused noted sensory deficits to the lower cervical/upper thoracic level. This caused major interruption with his life as he is actively pursuing a college education. He was trialed using an indwelling intrathecal catheter placed through a 14 gauge needle at L3-4 with 50 mcg baclofen, and had 100% relief of his spasticity for over 2 hours. He was kept in the hospital overnight and experienced no issues other than an episode of nausea with vomiting. Five days following the trial, he called the clinic to report a positional headache that was relieved with recumbency. The patient was brought into the emergency room and a bedside epidural blood patch was performed at the L4-5 level in the lateral decubitus position using loss of resistance for a presumed diagnosis of post-dural puncture headache. A total of 13 ml of blood was injected with the patient reported a feeling of pressure in his abdomen. The patient called clinic again 6 days after the initial epidural blood patch to report that he had some improvement in headaches for a few days, but that the headaches had returned. He was reevaluated in clinic and the decision was made to repeat the epidural blood patch using fluoroscopy. The patient was brought back to the hospital, and epidural blood patch was performed in the operating room. Contrast was injected at the L3-4 level and showed cephalad epidural spread without loculation. As the blood was injected, he again described only a feeling of pressure in his abdomen. A total of 18 ml was injected. From this second procedure, he had complete relief and did not have return of headaches.

## Discussion

When blood is injected for an epidural blood patch, providers typically stop injecting the blood when the patient experiences pressure between the shoulder blades, a volume typically of approximately 20mL. This case is interesting because his altered sensory perception from the injury did not provide the classic description of pressure between the shoulder blades. Instead, he felt abdominal pressure. A literature search did not identify any reports of blood patches for post-dural puncture headaches in tetraplegic patients. Tetraplegia is a well described complication from epidural procedures including epidural blood patch, but this appears



to be the first case report of performing an epidural blood patch with the condition pre-existing and demonstrating the differences in sensory endpoints with successful performance.



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## References

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