

# Spinal Epidural Hygroma in a Young Adult: A Rare Complication of Lumbar Puncture

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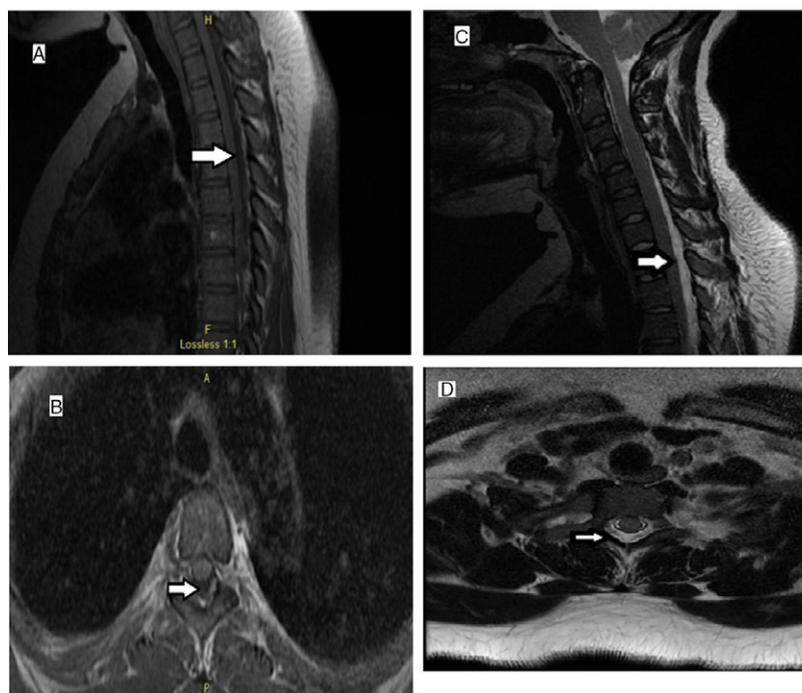
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A 28-year-old woman with past medical history of idiopathic intracranial hypertension (IIH) not on treatment presented to the emergency room with a history of headache, nausea and blurry vision of 5 days duration. Her neurological exam and computed tomography of head were unremarkable. We performed a lumbar puncture (LP) to rule out IIH and her opening pressure was noted

to be 10 cm of water. She subsequently developed severe back pain a few hours following LP. She had a magnetic resonance imaging (MRI) of her cervical, thoracic and lumbar spine which showed a moderately large epidural hygroma extending from the lower cervical spine to the lumbar spine (Figure 1A, 1B, 1C, 1D). She was managed conservatively with bed rest. Neurosurgery

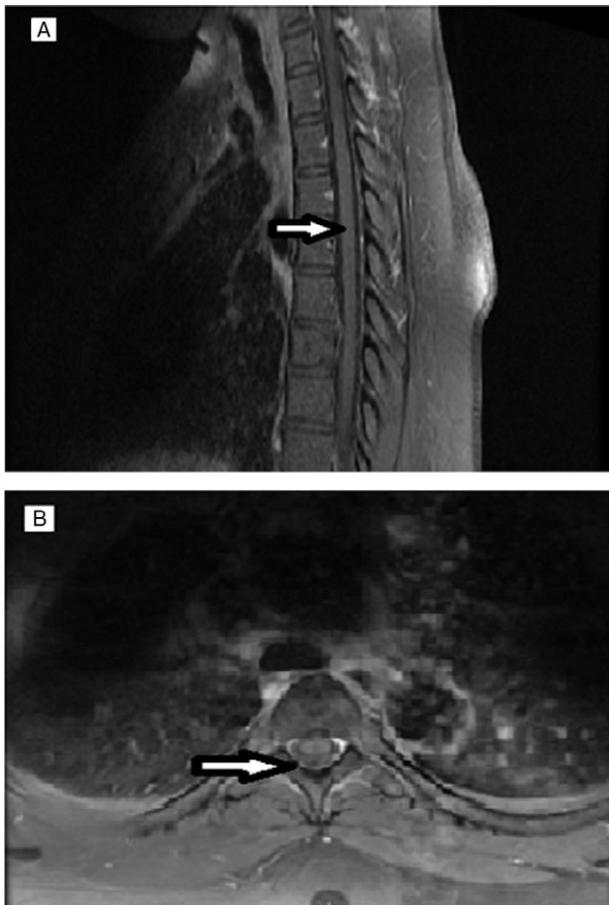


**Figure 1:** (Few hours after Lumbar puncture). A: T1 weighted sagittal section of thoracic spine shows compression of thecal sac by epidural hygroma which extends from C4 level to lumbar spine. B: T1 weighted axial section of thoracic spine shows compression of thecal sac by epidural hygroma, but does not cause spinal cord compression. C: T2 weighted sagittal section of cervical spine shows compression of thecal sac by epidural hygroma. D: T2 weighted axial section of cervical spine shows compression of thecal sac by epidural hygroma.

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**Figure 2:** (5 days after Lumbar puncture). A: T1 weighted sagittal section of cervical spine shows complete resolution of epidural hygroma. B: T1 weighted axial section of cervical spine shows complete resolution of epidural hygroma.

was consulted and no acute intervention has been recommended. Follow up MRI spine in 5 days showed complete resolution of epidural hygroma (Figure 2A, 2B).

Spinal epidural hygroma is a very rare complication following LP. In infants, asymptomatic collection of cerebrospinal fluid (CSF) in the epidural space documented with ultrasound is common.<sup>1</sup> Also comparing to adults, children have less fibrous stroma in epidural fat which facilitates the dissection of CSF along epidural space.<sup>2</sup> Very few cases have been reported in literature with adults presenting with symptomatic spinal epidural hygroma after LP. Severe progressive back pain extending beyond the site of LP should raise suspicion for epidural hygroma and needs evaluation with urgent MRI Spine.<sup>3</sup> Most epidural hygromas present with severe pain. They resolve with conservative management and rarely need an epidural blood patch. Patients with spinal epidural abscess may have similar imaging findings but they usually present with fever, back pain and neurologic deficits.

#### DISCLOSURES

The authors have no conflicts of interest to declare.

#### STATEMENT OF AUTHORSHIP

PE: Lead author, conceptualisation, Data curation, Writing - Original draft, Review and analysis

TD: Corresponding author, Writing - Original draft, Image editing, Review and analysis

SA: Writing - Original draft, review and editing, Review and analysis

MS: Writing - Review and editing, Final draft

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