Abstract # 200

Postpartum Workup for PDPH Leads to Diagnosis and Surgical Treatment of Thoracic Pseudomeningocele

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Introduction: Postdural puncture headache (PDPH) is a well known complication of neuraxial anesthesia and may occur even when dural puncture goes unrecognized. However, there are many other causes of postpartum headache, some of which can present like a PDPH and may confuse or delay the diagnosis(1). We report a case of postpartum headache due to pseudomeningocele that was initially assumed to be a PDPH.

Case Report: A 31-year-old primigravida presented to hospital at 35 weeks gestation for induction of labour due to a low biophysical profile score. Past medical history revealed intermittent migraines with and without aura, complicated by 2 years of severe, debilitating, chronic daily right-sided headache with a postural component. Low CSF headache was suspected, but an MRI brain ordered by her neurologist was reported as negative. She was treated with moderate success with indomethacin until pregnancy when the headache resolved within the first trimester. A labour epidural was placed without complication at L3/L4. On postpartum day one, she complained of mild headache that responded to ibuprofen. She was discharged home on postpartum day two. The severe, debilitating pre-pregnancy headache gradually returned within weeks. Radiating from the neck into the occipital and right hemispheric regions, this pounding headache was associated with nausea and vomiting, and worsened over the day, but improved when supine. Neurology follow-up prompted a repeat MRI brain that demonstrated downward displacement of the brainstem and posterior fossa with tonsillar herniation, in keeping with intracranial hypotension. She was referred to the Anesthesia Department, and an epidural blood patch was performed at L3/L4. There was no improvement, so a second epidural blood patch was performed 10 days later, still with no improvement. A subsequent MRI brain showed unchanged intracranial hypotension, and an MRI of the spine revealed a posterior epidural fluid collection at T7, with a small lateral pseudomeningocele from the right sac at T7. A CT-myelogram confirmed a pseudomeningocele with CSF collection on the right of T7/T8. The patient underwent direct microsurgical exploration and repair 4 months later, with clinical improvement. However, occasional suboccipital headache that resolved with caffeine still persisted, and further workup has been planned.

Discussion: This case highlights the importance of maintaining a wide differential diagnosis in the workup of postpartum headaches after regional anesthesia, particularly in cases refractory to epidural blood patches. It demonstrates a T7 pseudomeningocele causing spontaneous intracranial hypotension; this condition may not have been detected and corrected without diligent consideration of the differential diagnosis and if investigations had not included MRI of the spine and CT myelogram.