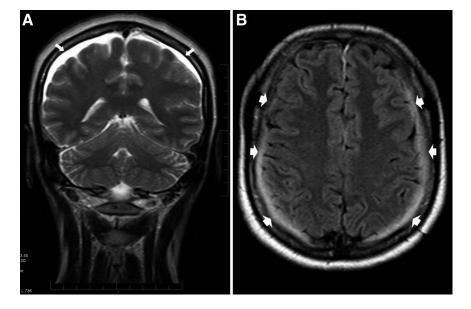
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Bilateral Subdural Intracranial Hematoma after Accidental Dural Puncture

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29-YR-OLD healthy parturient developed positional frontoparietal headache after accidental dural puncture during attempted placement of an epidural catheter. The headache improved with hydration, bed rest, and analgesics. However, it persisted (without postural component) at the 2-week interval. Neurologic examination was normal. Magnetic resonance imaging showed the presence of bilateral frontoparietal subdural intracranial hematoma.

Subdural intracranial hematoma is a very rare consequence of accidental dural puncture. The bleeding results from cerebrospinal fluid loss (cerebral hypotension) related to traction on the intracranial bridging veins.¹

Postdural puncture headache may complicate the diagnosis. Atypical

headache (absence of postural component, persistence for more than 7 days, unresponsiveness to analgesics), signs of increased intracranial pressure, or mass effect on brain parenchyma (vomiting, seizures, altered level of consciousness, focal motor and sensory deficits) should lead to consideration of subdural intracranial hematoma.²

Presence of semilunar extraparenchymal liquid over the convexity on computed tomography (more sensitive in acute situations) or magnetic resonance imaging (more sensitive in older "denser" hematomas) scans confirms the diagnosis (arrows).

In view of the small size of the hematomas, in our case conservative management was deemed appropriate. However, when there is mass effect, compression, and midline shift, surgical evacuation of the hematoma is the treatment of choice. Epidural blood patch (treatment of postdural puncture headache) when performed in the presence of intracranial hemorrhage may lead to rebound intracranial hypertension and neurologic deterioration. Our patient was discharged home without any neurologic sequelae. A follow-up magnetic resonance imaging showed spontaneous resolution. Subdural intracranial hematoma should be considered in the differential diagnosis of postpartum headache.

References

- 1. Zeidan A, Farhat O, Maaliki H, Baraka A: Does postdural puncture headache left untreated lead to subdural hematoma? Case report and review of the literature. Int J Obstet Anesth 2006; 15:50-8
- 2. Ezri T, Abouleish E, Lee C, Evron S: Intracranial subdural hematoma following dural puncture in a parturient with HELLP syndrome. Can J Anaesth 2002; 49:820-3
- 3. Kayacan N, Arici G, Karsli B, Erman M: Acute subdural haematoma after accidental dural puncture during epidural anaesthesia. Int J Obstet Anesth 2004; 13:47-9