Immediate onset of postdural puncture headache after spinal anesthesia

Sir,

Spinal anesthesia is the most common anesthesia practiced for lower segment ceserean section (LSCS). The frequency of postdural puncture headache (PDPH) using a 27G Whitacre needle has been quoted as low as 0.5% with the majority of cases presenting after 24 h.[1] We report here a very rare incidence where PDPH occurred immediately after giving spinal anesthesia.

A 25-year-old young female was taken for emergency LSCS due to fetal distress. Quinke needle of 26G was used to give spinal anesthesia at L3-L4 space in sitting position after taking full aseptic precaution. In first attempt block was successfully performed 2.4 ml of 0.5% heavy bupivacaine was given. A bilateral block to T4 dermatome was demonstrated after 5 min of putting patient in supine position. Immediately with start of surgery patient complained of an intolerable occipital headache accompanied with nausea. Patient was hemodynamically stable. Patient was reassured and surgery was proceeded in view of fetal wellbeing. The rate of infusion of intravenous fluid was increased and injection paracetamol 20 mg/kg body weight was given. Headache subsided and surgery was successfully

completed. After 2 h patient again complained of intolerable headache. The headache was positional, exacerbated by an upright position and decreased in the supine position. She was apyrexial and had no history of migraine. Neurology reference was done and computed tomography scan of brain was advised which was normal. The International Headache Society describes PDPH as headache that worsens within 15 min after sitting or standing and improves within 15 min after lying, with at least one of the following-neck stiffness, tinnitus, hypacusia, photophobia or nausea.[2] There should be a history of dural puncture, the headache should develop within 5 days after dural puncture and should resolve either spontaneously within 1 week or within 48 h after effective treatment of cerebrospinal fluid leak (usually by epidural blood patch). Within a week the postural headache settled with conservative management. There were no neurological sequelae.

The onset of PDPH most commonly occurs between 12 h and 72 h postspinal anesthesia.[3] It is not a benign complication, with reports of subdural hematoma and seizures following dural puncture.[4,5] Few cases of PDPH within an hour of spinal anesthesia was reported.[6] This is probably the only case in which PDPH was reported immediately after spinal anesthesia. A few factors appear to increase a patients risk of developing a PDPH. However, whether the headache is due to traction on intracranial structures or due to compensatory cerebral venodilatation is debated.[3] Female gender, pregnancy, young age (20-40 years old) and history of headache prior to the lumber puncture increases the likelihood of developing PDPH.[7] In our patient all the above mentioned criteria was present except history of prior headache. According to Turnbull and Shepherd, PDPH is also related to the size of dural perforation and thus, needle size, needle bevel design and orientation, localized thickness of the duramater and the experience of the operator. Though the incidence of PDPH is lowest with 27G Whitacre needle, but it is associated with the highest failure rate (12%).[8] Quincke needle of 25G has greatest incidence of successful dural puncture following a single needle insertion (100%).[8] We used 25G Quincke needle and the procedure was successfully performed in first attempt. Thus we have novelty of bringing in notice rare immediate presentation of PDPH, which possibly could not be prevented. We need more cases of PDPH to be reported with such immediate presentation for establishing few more predisposition for PDPH.

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