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Sphenopalatine Ganglion Block (SPGB) and Greater Occipital Nerve Block (GONB). A simple and effective way of managing PDPH.

J. Thomas[1], S. Lal[2], Z.H Chua[1]

1. Department of anaesthesiology and Critical Care Medicine, Drogheda.
2. Department of anaesthesiology and Critical Care Medicine, Beaumont Hospital.

Dear Editor,

Post Dural Puncture Headache (PDPH) occurs after a spinal tap procedure or an inadvertent lumbar puncture. It is a well-recognised complication of Labour epidural. PDPH is caused by leakage of cerebrospinal fluid from the spinal canal through the puncture site and results in headache, neck pain, and discomfort.

We wish to describe the management of atypical PDPH in a 22-year-old primigravida who developed severe headache associated with bilateral orbital pain 08 hours post spontaneous vaginal delivery (SVD). Headache was associated with ambulation with no evidence of neck stiffness and focal or generalised neurological motor and sensory deficit on initial presentation. The conservative management of PDPH was carried out with IV fluids, caffeine, regular paracetamol, NSAIDs, and oxycodone which provided some relief. However, the headache increased in severity with neck stiffness on day 02 (D2).

Severe bilateral orbital pain, severe headache and cervical and thoracic spinal pain warranted CT and MRI brain with the spine to exclude cerebrovascular accident, which revealed patchy cerebral meningeal thickening and enhancement with bulky dural sinuses and slit-like third ventricles. The appearances were consistence with intracranial hypotension.

The epidural blood patch was delayed due to increased CRP, WBC and an un-resolving temperature of >38.2C. We performed a bedside, bilateral greater occipital nerve block (GONB) and trans-nasal sphenopalatine nerve block to manage the persistent headache on day 03 (D3). She had some relief from a headache post-ultrasound-guided GONB. However, analgesia was short-lived.

Due to an unresolved crippling headache, an epidural blood patch (EBP) was subsequently performed by a senior anaesthetist. Preprocedural ultrasound of the spine was performed to locate the midline and interspinous space. Under strict aseptic measures, 20mls blood was taken from the arterial line due to difficult peripheral IV access and was injected in the epidural space. Immediately after EBP patient got complete relief from the headache. The patient was discharged home on day 08 (D8) post EBP with advice to follow up if needed.

Inadvertent dural puncture results in post-dural puncture headache. PDPH presents as frontal-occipital pain, which is often delayed but can present within 12-48 hours. Due to rising inflammatory markers and high temperature, EBP was not a suitable option for our patient. We performed bedside sphenopalatine ganglion block (SPGB) and greater occipital nerve block (GONB). The SPGB attenuates the parasympathetic mediated cerebral vasodilation and may relieve PDPH[1]. GONB has been used successfully to treat cervicogenic headaches, occipital neuralgia, migraines, and PDPH[2].

The sphenopalatine ganglion block (SPGB) and greater occipital nerve block (GONB) are simple and effective. They can be considered when EBP is not suitable and conservative management fails to offer relief.

For moderate-to-severe PDPH, an epidural blood patch (EBP) remains the most effective treatment.

Corresponding Author:
Dr. Shankar Lal,
Fellow neuroanaesthesiology and neuro-critical care medicine,
Department of anaesthesiology and Critical Care Medicine,
Beaumont Hospital.
E-Mail: shankar.anaesthesia1@gmail.com

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