



# Sphenopalatine Ganglion Block for Postdural Puncture Headache After Labour Epidural in a Jehovah's Witness Patient

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Dear Editor,

Postdural puncture headache (PDPH) is a well-described complication following dural puncture in the obstetric population. Pain caused by PDPH is believed to be owing to decreased intracranial pressure, which leads to a downward pull of intracranial structures along with compensatory vasodilation (1). A variety of treatment options have been described including conservative management with caffeine, hydration, medication management, as well as interventional procedures. Epidural blood patch is considered the gold standard for treating PDPHs, although it is often reserved for patients with debilitating pain. Epidural blood patch is believed to help in the relief of PDPHs initially by increasing intracranial cerebrospinal fluid (CSF) pressure while additionally clogging the dural defect with a blood clot (2). This procedure is not without risks and requires patient cooperation throughout the procedure. We discuss the treatment of a Jehovah's Witness patient who suffered from PDPH and refused epidural blood patching but received relief with sphenopalatine ganglion blocks.

The patient was a 33-year-old G1 Jehovah's Witness at 39 weeks gestation with no significant past medical history. The patient had an epidural placed for analgesia without a documented dural puncture. She had a successful vaginal delivery and had her epidural removed one hour later. She later developed a severe positional headache on postpartum day 1 that was occipital in nature and associated with photophobia but no nausea or vomiting. Her headache was 9/10 intensity when sitting and became 2/10 when lying flat. She reported no history of headaches in the past and vital signs were otherwise within normal limits. She was started on conservative management including fluids, caffeine, acetaminophen, and nonsteroidal antiinflammatory, with minimal benefit. The patient was offered an epidural blood patch after failing conservative therapy. The patient raised concerns regarding how to keep her blood in a continuous circuit within her body for religious beliefs. We recommended a technique previously described utilizing intravenous (IV) tubing and a stop cock (3). As the patient refused the epidural blood patch, we offered her a sphenopalatine ganglion block with greater occipital nerve blocks, which she accepted. With the patient's consent, we performed the aforementioned nerve blocks. The patient quickly reported near complete resolution of her symptoms. Her headache dropped from 9/10 to 1/10 intensity, and she was able to ambulate out of bed and care for her new-born baby.

The patient's personal beliefs and hesitation to receive an epidural blood patch made sphenopalatine ganglion and greater occipital nerve blocks an attractive option for treatment. The blocks have a good safety profile, and are easy to perform. The sphenopalatine ganglion is a parasympathetic ganglion, which contributes to intracranial vasodilation and pressure, and has proven to be efficacious in a variety of headache conditions (4). Additionally, greater occipital nerve blocks have been shown to be useful in occipital and cervical headaches (5). These blocks are a good alternative to patients who refuse epidural blood patching. Anaesthesiologists should consider the usefulness of these procedures for treating PDPHs after labour analgesia.

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