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Epidural blood patch in a Jehovah's Witness patient with post-dural puncture cephalgia

To the Editor:

We report a case of epidural blood patch in a Jehovah's Witness (JW) parturient by using a continuous circuit technique.¹

A young healthy primigravida was scheduled for an elective Cesarean delivery under epidural anesthesia. Accidental dural puncture occurred and the catheter was inserted into the subarachnoid space. 12.5 mg of 0.5% bupivacaine and 25 µg of fentanyl were injected and the Cesarean section was completed uneventfully under a spinal anesthetic.

The subarachnoid catheter was left in place and was removed on postoperative day (POD)¹. Subsequently she developed a postural, occipital headache consistent with post-dural puncture headache. Initially, hydration, analgesics and *iv* caffeine were tried, but failed to achieve relief. The possibility of a blood patch was discussed on POD 2, but the patient refused this treatment option and opted for epidural saline. On POD 3, the patient's headache was severe and prevented discharge from the hospital. She accepted the blood patch with the condition that the blood used

remain in a continuous circuit. Utilizing this principle, a continuous circuit was established (Figure). After placement of an 18-gauge Tuohy needle in the L2–L3 epidural space, a four-way stopcock was connected to the needle along with a 20-mL syringe. Using an aseptic technique, an 18-gauge *iv* catheter was placed in the left antecubital fossa and connected to a sterile *iv* extension tubing. Subsequently a 36-inch pressure tubing with male luer locks on both ends was connected to the *iv* extension tubing. The other end was connected to the four-way stopcock completing the circuit. Twenty millilitres of blood were aspirated and injected into the epidural space, providing complete relief within two hours. The patient was discharged home on POD 4 and remained free of complications.

Management of an epidural blood patch can be a challenge in the JW patient. The JW belief is that "a Christian ought to focus, not primarily on whether a brief interruption in flow might occur, but on whether he conscientiously believed that the diverted blood would still be part of his circulatory system".² Our montage is acceptable since the JW patient believes that, despite the stopcock, the tubing acts as an external conduit for blood to flow, even though the flow may be interrupted briefly. We believe that this method is more user friendly than other methods described^{3–5} and will be accepted by most JW parturients.

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FIGURE Continuous system for obtaining autologous blood and injecting into the epidural space for a blood patch under sterile conditions.