

## Postdural puncture headache following acupuncture

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Received: 5 May 2011 / Accepted: 6 June 2011 / Published online: 29 June 2011  
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**Keywords** Acupuncture · Postdural puncture headache · Postural headache

To the Editor:

Acupuncture is a popular technique with worldwide application, particularly in clinical pain management. However, severe life-threatening acupuncture-related complications have been reported, even though it is considered a safe procedure [1]. Here, we report a case of postdural puncture headache (PDPH) that occurred following acupuncture for the treatment of a patient's lower back pain. A 21-year-old male patient visited our hospital for a 2-day headache that commenced 2 h following acupuncture. The headache, accompanied by nausea, was located on the frontal region of his head, and sitting and standing exacerbated the discomfort. However, adopting the supine position allowed the pain to subside. The patient was healthy except for a previous complaint of 3 months of lower back pain, and myofascial pain was diagnosed. He had received medications and rehabilitation treatment, which, however, were ineffective. He then received a single

acupuncture treatment. On admission, the physical examination showed no neurological disorder, except for seven acupoint wounds on his back, close to the fifth lumbar (L5) and first sacrum spine (S1). The patient was admitted to our hospital because of his severe headache. Magnetic resonance imaging of the brain revealed no intracranial pathology. PDPH, caused by acupuncture, was therefore diagnosed. Conventional treatments, including bed rest, fluid hydration, and oral analgesic (acetaminophen), were ineffective, however. Then, epidural blood patching with 10 ml autologous blood was injected into the L5–S1 epidural space. The headache subsided dramatically 15 min following the procedure, and the patient was duly discharged.

Acupuncture was identified as the cause of cerebrospinal fluid leakage from puncture sites, which presented as headache; it is often associated with intracranial hypotension. Our patient's postural headache had the same symptoms as PDPH, an adverse effect occasionally seen following spinal and epidural anesthesia. However, acupuncture-associated PDPH is rarely reported [2]. Aside from risk factors such as carelessness in performing acupuncture or poor operator skills, low body weight, resulting in less distance of the skin to the subarachnoid space, may have caused this patient be more vulnerable to this complication. The effective depth of an acupuncture needle insertion into the back, buttock, or leg ranges from 15 to 125 mm [3]. In our patient, a relatively long needle (3 inches) was used for acupuncture treatment. Thus, using a long acupuncture needle for a patient with low body weight might be the cause of the complication.

In conclusion, PDPH should be considered following acupuncture for back pain treatment, and EBP can provide dramatic relief of the headache. We hope learning about this case will encourage clinicians to take more care when performing acupuncture.

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