

POST-ACUPUNCTURE HEADACHE: AN UNFORTUNATE CASE OF AN INADVERTENT LUMBAR PUNCTURE

Singapore Med J 2018; 59(10): 557-558 <https://doi.org/10.11622/smedj.2018131>

Dear Sir,

We herein report an unusual case of headache. A 34-year-old woman with lower back pain secondary to prolapsed intervertebral disc disease had received acupuncture therapy at a private acupuncturist. She had no other medical history of note. During her acupuncture session, the patient reported that the practitioner aspirated 10 mL of pinkish fluid from the lumbar region. Upon sitting up, she experienced a severe frontal headache with nausea and vomiting, and presented to the hospital within 1–2 hours of the initial procedure with features typical of intracranial hypotension, such as headaches, nausea and vomiting, only on sitting or standing up. Her neurological examination was unremarkable.

Computed tomography of the brain revealed pneumocranium (Figs. 1a & b) with no evidence of subarachnoid haemorrhage. The patient was hydrated intravenously and given analgesics. Magnetic resonance imaging of the brain performed three days later showed resolution of the pneumocranium and no features of intracranial hypotension (no pachymeningeal enhancement, venous distension, sagging of the brainstem or cerebellar tonsils, or change in the callosal/pontomesencephalic angle). There was no evidence of infection or any swelling or bleeding at the puncture site. The patient was diagnosed to have pneumocranium secondary to lumbar acupuncture therapy, with inadvertent lumbar puncture. The patient's headache resolved on Day 5 of admission and she was discharged well. She stopped undergoing acupuncture therapy for her lower back pain. The patient remained neurologically intact at her subsequent orthopaedics visits at three and six months following admission.

Several studies have documented adverse events associated with acupuncture therapy. The most common complication involves injury to the local site of acupuncture, such as bleeding, pain and infection.^(1,2) While severe adverse events of pneumothorax⁽³⁾ and cardiac tamponade⁽⁴⁾ have been reported, central nervous system (CNS) complications of acupuncture are less common. Among the CNS complications reported, subarachnoid haemorrhage is the most common complication.⁽⁵⁾ A 2013 systematic review of CNS-related complications of acupuncture found nine cases, of which three had epidural haematomas, three had acute intracranial haemorrhage, and the other three had a medullary injury, spinal cord injury from a broken needle and cerebrospinal fluid fistula.⁽¹⁾ This case report is the first to detail a headache secondary to pneumocephalus from inadvertent lumbar aspiration, although there was one prior report of intracranial hypotension following acupuncture.⁽⁶⁾

In addition to aspiration of fluid from the spine, we postulate that the practitioner also used a double lumen needle (which has been phased out from clinical practice in Singapore), in view of the clinical findings of pneumocranium. Patients who report headaches that are suggestive of intracranial hypotension immediately after acupuncture therapy should be evaluated for subarachnoid haemorrhage as well as features of intracranial hypotension.

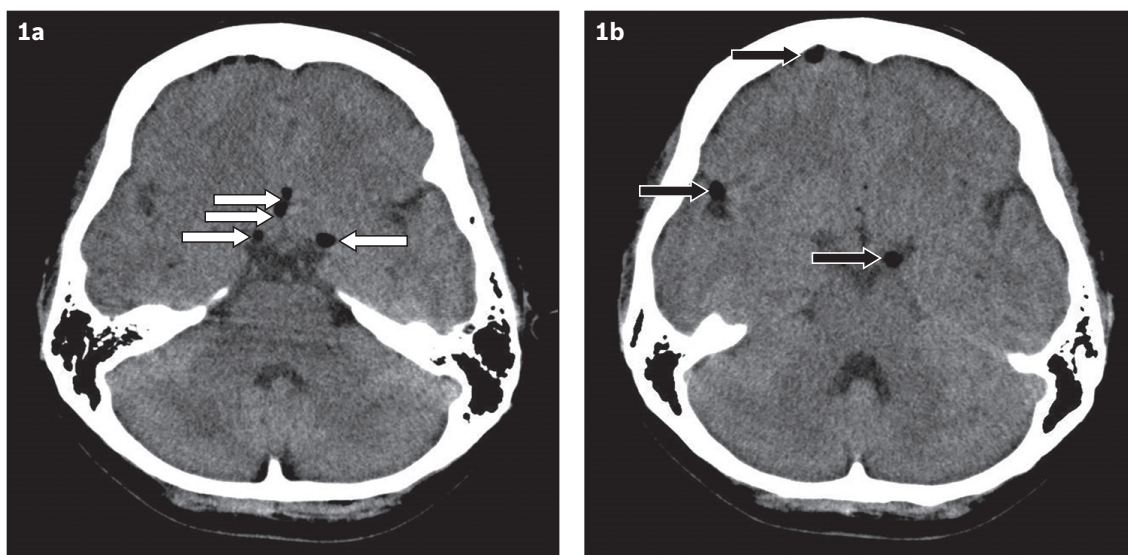


Fig. 1 CT images show (a) air pockets (white arrows) above the foramen magnum and (b) air pockets (black arrows) in the right frontal and bilateral temporal lobes.

Yours sincerely,

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