Lumbar epidural hematoma due to lumbar acupunctures

Sir,

Although complications associated with acupuncture have been reported,\(^1,2\) they are often transient and mild. Serious complications following acupuncture are rare.\(^3\) In this report, we present a case of localized lumbar epidural hematoma following acupunctures.

A 74-year-old man presented with complaints of progressive weakness of the left leg and radicular pain in the left thigh for 2 days following the last session of acupunctures in the lumbar region for his back pain. He was hospitalized about 4 weeks later. There was no other systemic complaint. There was no history suggestive of any bleeding disorder. On physical examination, it was detected that he had left-thigh weakness (4/5) and absence of left-knee jerk. He did not have neck rigidity; no obvious sensory deficit was revealed during the physical examination.

Noncontrast T1W magnetic resonance imaging (MRI) demonstrated a localized high-intensity fusiform mass at the L2-3 disc level, located posteriorly [Figure 1 and 2]. The results of laboratory coagulation tests were normal.

An appropriate laminectomy was performed. An organized encapsulated hematoma was encountered; the capsule was attached to the dura. There was no dural tear or any clear sign of previous punctures. The results of the pathologic examination of the specimens (the capsule and its content) were fibrosis and hematoma. One week after the operation, the patient recovered completely from the neurological deficit and was relieved of the radicular pain.

Although serious complications have been reported with acupuncture, they are rare. Yamashita suggests that most serious adverse events are actually cases of negligence.\(^4\) We found two cases of spinal epidural hematoma associated with acupuncture in the Medline.\(^5,6\) Chen\(^7\) reported a 48-year-old female with meningeal irritation within 1 week after the acupunctures, leading to a L1/2 subacute epidural hematoma and meningitis. The patient was managed conservatively. Keane\(^8\) reported a thoracic spinal epidural hemorrhage with subarachnoid hemorrhage following acupunctures.

This case draws attention to the rare complication of the lumbar epidural hematoma following acupunctures. The history and the localized nature of the hematoma should raise suspicion. Depending on the clinical course, either a conserva-
Letter to Editor

Isolated abducens nerve palsy caused by contralateral vertebral artery dolichoectasia

Sir,

Several diseases present with isolated sixth nerve palsy in adults. The causes of actual sixth nerve palsy include aneurysms of the vertebral artery (VA), tumor, head trauma, diabetes mellitus, arteriosclerosis, multiple sclerosis, meningitis, increased intracranial pressure, and lumbar puncture.\[1\],\[2\]

Elongation, widening, and tortuosity (dolichoectasia) of the vertebrobasilar system occasionally causes facial nerve palsy or trigeminal nerve disturbance by compression.\[3\],\[4\]

Isolated abducens nerve palsy related to dolichoectatic vertebral artery (DVA) compression is very rare. We describe a patient with isolated right abducens nerve palsy due to vascular compression of left DVA. A 53-year-old man had a 3-year history of horizontal diplopia with no associated symptoms. He complained of horizontal diplopia during rightward gaze. Blood pressure was recorded as 120/80 mm Hg in left arm whilst seated. In the primary position, there was a secondary deviation in the left eye. Neuro-ophthalmologic examinations disclosed right abduction palsy. In contrast to right ward gaze, no problem was found in left ward gaze. All the other cranial nerves examinations were normal. He had no papilledema or nystagmus. Neostigmin testing was performed twice and the results of each test were negative. The blood count, serum glucose (fasting and following glucose load), erythrocyte sedimentation rate, thyroid function studies, and the other hematological investigations were all within normal limits. Magnetic resonance (MR) imaging and MR angiography of the brain and orbit demonstrated compression of the right abducens nerve superiorly and laterally by dolichoectatic left VA. No other abnormal signals were seen in brainstem [Figure 1]. Owing to the fact that the right abducens nerve palsy was mild and the patient showed no diplopia in the primary position, no treatment was administered. Six months after the first examination, no changes in neurological findings had been detected.

The dolichoectatic VA is the site of marked pathological elongation, widening, and tortuosity. The etiology of dolichoectasia is unclear. Severe arteriosclerotic changes associated with hypertension had been reported as a cause of dolichoectasia of vertebrobasilar system. On the other hand, because of its occurrence in some young people, several congenital factors may contribute to its development. When VA is dolichoectatic, it deviates from its course ventral to the brainstem and may compress the cranial nerves, most frequently as they emerge from the brain stem (root entry zone). The facial and trigeminal nerves are the mostly affected ones.\[3\],\[4\]

In addition DVA can produce ischemic stroke, transient ischemic attacks, and intracerebral hemorrhage.\[1\]

The abducens nerve is one of the longest nerves in its peripheral course that predisposes this cranial nerve to involvement at all levels, from the brain stem and base of the skull, through the petrous tip and cavernous sinus, to the superior orbital fissure and orbit. Because of this, the sixth nerve is more liable to injury by some conditions such as trauma or inflammatory lesions. Abducens nerve palsy usually results from brainstem ischemia, hemorrhage, infiltration of tumor or vascular compression, and is always associated with facial weakness and pyramidal signs in the central lesions. After emerging from the brainstem, occasionally, the abducens nerve may be compressed by vascular structures such as an enlarged ectatic venous plexus.\[5\]

Effective observation or surgical evacuation of the clot can be the treatment options.

Behzad Eftekhar, Ebrahim Ketabchi, Mohammad Ghodsi, Babak Esmaeeli
Department of Neurosurgery, Sina Hospital, Tehran University, Iran.
E-mail: eftekhar@sina.tums.ac.ir

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