



Iatrogenic Bilateral Pneumothorax after Acupuncture

Akupunktur Sonrası Gelişen Bilateral Pnömotoraks

To the editör,

Acupuncture dates to 8000 BC. Since 1965, many case reports of serious or even life-threatening incidents, including pneumothorax, hemorrhage, hematoma formation, and hepatitis caused by acupuncture have appeared in the scientific literature (1,2). We report a case of bilateral pneumothorax after acupuncture therapy. A 47-year-old male presented at the emergency department with severe bilateral chest pain and dyspnea. He was a smoker of about 10 cigarettes/day and his medical history was the acupuncture therapy presentation for treatment of bilaterally chronic shoulder pain. Needling of the acupoint was performed at the supraclavicular and infraclavicular area during a session of acupuncture. The complaints began after acupuncture treatment on the following day. Bilateral pneumothorax was identified at computed tomography (Figure 1). A tube thoracostomy was performed bilaterally. After stopping the air leakage, the thorax tubes were removed in the subsequent follow-up days and the patient was discharged from the hospital. Bilateral pneumothorax after acupuncture of the thorax is a rare complication and its precise incidence is unknown.

Acupuncture is among the most popular of all complementary or alternative therapies. Acupuncture has a reputation among the public of being safe. Many case reports and reviews are concerned with the topic of pneumothorax from or associated with acupuncture. Among them are several reports on bilateral pneumothorax (1,2). The depth of insertion of the acupuncture needles varies from a few millimeters to several centimeters. The tip of the needle often lies in a muscle, or overlies other structures, including the nerves and pleura; thus acupuncturists require a working knowledge of anatomy to avoid causing direct trauma (3). Pneumothorax may also chiefly occur when the

needles are placed in the parasternal or supraclavicular site, the latter without taking notice that the borders of the pleura and lung are situated well above the clavicles (4), which is the condition similar to the patient in the current study.



Figure 1: CT image of the patient.

The most common adverse events were needle pain, tiredness, and bleeding. Faintness, syncope, and needle break were uncommon. Experience and knowledge of anatomy is indispensable, and awareness of the depth of needle insertion is also important. Patients identified to be at increased risk for pneumothorax during acupuncture includes smokers, tall males, patients with emphysema, patients who are taking corticosteroids, and patients with active cancer. Any point overlying the pleura is vulnerable and special care should be exercised. Even though pneumothorax is the most frequently reported serious complication related to acupuncture, it is likely to be avoidable.

The literature was reported that of a total of 55,291 acupuncture treatments, 64 adverse events. Of these, pneumothorax occurred in about 1 in 5000 cases, five case reports of fatalities were published, including two with cardiac tamponade (5), two cases of staphylococcal septicemia, and one death

from bilateral tension pneumothoraxes (6). In the literature, very rarely cases of bilateral pneumothorax after acupuncture therapy were encountered, and one case treating with suction and the others were performed tube thoracotomy were found (7,8).

In sum, bilateral pneumothorax occurred after acupuncture therapy, it should have also been emphasized that this complication is potentially fatal and should be immediately treated.

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