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**ACUPUNCTURE THERAPY, AN UNDERREPORTED CAUSE OF PNEUMOTHORAX**

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10.1136/jim-2016-000120.122

**Introduction** Acupuncture is usually portrayed as a risk-free therapy; but is it? We report a case of a tension pneumothorax following acupuncture therapy.

**Case Presentation** A 70 year-old-man was receiving acupuncture therapy for right-sided post-herpetic neuralgia involving the 4th–7th intercostal nerves. Shortly after, he



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started complaining of severe dyspnea and pleuritic chest pain and was transferred to the emergency department. His SpO<sub>2</sub> was 77% on room air, respiratory rate 38/min, heart rate 129/min and blood pressure 154/82 mm Hg. Absence of breath sounds was noted on the right side. Chest X-ray (CXR) revealed a right-sided pneumothorax with mediastinal shift (figure 1). A 14F chest tube was placed and a follow-up CXR showed resolution of the pneumothorax. On hospital day#2, the air leak resolved and the chest tube was clamped, but the patient developed subcutaneous emphysema requiring unclamping of the chest tube and attaching it to suction (-40 cm H<sub>2</sub>O). On day#4, the chest tube was removed. Serial CXRs were done showing stable subcutaneous emphysema and absence of pneumothorax. He was discharged home on day#7 only to be readmitted 48h later with recurrent pneumothorax requiring placement of another 14F chest tube. Due to persistent air leak on suction, a chest CT was done showing small anterior right-sided pneumothorax and right-sided subpleural bullae (figure 2). Thoracic surgery was consulted and a Video-assisted thoracoscopic excision of ruptured bullae with talc pleurodesis was performed. He was discharged home on hospital day#13. At one month follow-up, he remained asymptomatic.

**Discussion** Acupuncture is one of the most popular of all alternative therapies, and is a relatively safe procedure. Although rare; pneumothorax is the most reported serious complication. In a prospective observational study in Germany, the incidence of acupuncture-related pneumothorax was 1/100000 patients<sup>(1)</sup>. Unfortunately, this study included various acupuncture treatments and not only the ones where needling of the thorax occurred.

High quality studies are absent and most data come from case reports. In a review of the Chinese literature, 30 cases were reported between 1980 and 2013<sup>(2)</sup>. In the English literature, 26 cases were reported between 1965 and 1999<sup>(3)</sup>, and 13 cases between 2000 and 2011, with only 3 cases in the USA<sup>(4)</sup>.

Most reported cases have in common the lack of an informed consent. We are reporting this case to increase the awareness toward recognizing pneumothorax as a potential complication of acupuncture, and reinforce the need of an informed consent where benefits and risks of acupuncture therapy are discussed.