Cardiac perforation as a rare complication of acupuncture

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A previously healthy 51-year-old female was referred to the emergency department with ongoing chest pain and dyspnoea. The ECG showed non-significant ST-segment elevations and PQ depression in the limb leads with reciprocal PQ elevation and ST depression in aVR (Panel A), suggestive for acute pericarditis. As repetitive blood sampling assessment showed a relevant increase in high-sensitivity Troponin, a coronary angiography was performed to rule out significant coronary artery disease. While the coronary arteries were free from atheromatous plaques, the fluoroscopic images showed a needle-shaped foreign body projecting on the left ventricle (Panel B). Transthoracic echocardiography was not able to identify the cause of the foreign body, but computed tomography scan confirmed the presence of a needle-shaped radiopaque structure perforating the left ventricle and protruding into the left lower lobe of the lung (Panel C). After discussing the imaging findings as a potential reason for the clinical symptoms, the patient immediately mentioned an acupuncture treatment some days ago. Acupuncture was performed by a non-professional and close friend to treat her chronic musculo-skeletal pain. Cardiac surgery was immediately performed, during which a left-sided haemothorax was evacuated and the thin needle (0.2 × 75 mm) completely removed without cardiopulmonary bypass (Panel D). Patient recovery was fast and uneventful and she was discharged on Day 4 after surgery.

Thoracic therapeutic acupuncture could be associated with potential life-threatening complications in inexperienced hands and should only be performed by trained experts in the field.

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