

Self-inflicted Multiple organs Injury with Nail Gun

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A 23-year-old man committed suicide by shooting more than 10 nails into his chest with a nail gun 3 days ago. Physical examination on admission showed stable vital signs without losing consciousness (Glasgow Coma Scale: E4V5M6) and limb weakness (muscle strength with grade 4). Several scars and local eminence could be seen on his left chest wall (Figure 1). Urgent CT examination revealed exudation in the left lung and bilateral pleural effusion, especially at the left. High density shadows in the left anterior chest wall, heart, left lung and stomach were considered as foreign bodies (Figure 2). Massive pericardial effusion was also presented (Figure 2B, 2C). Echocardiography also indicated a large pericardial effusion, of which the widest part of the apex was about 12mm. We performed emergency surgery on the patient through cardiopulmonary bypass. A total of 12 nails, about 5cm in length, were found (Figure 3A), of which 6 penetrated the chest wall and the left ventricular wall, 3 nails penetrated the middle and lower lobe of the left lung, 2 nails were located in the chest wall, and the other nail was found to be located near the gastric fundus on the anterior wall of the upper gastric body through gastroscopy, with one side free and the other side trapped in the gastric wall (Figure 3B).

The operation was performed with a median sternal incision assisted by cardiopulmonary bypass, 11 nails were removed during the operation, the ruptured left ventricle and the middle and lower lobe were repaired. The nail in the stomach was removed endoscopically and the gastrointestinal decompression tube was indwelling. The operation was successful, and the patient was discharged successfully 2 weeks after the operation.

Consent for publication

Informed written consent was obtained from the patient for publication of this case and accompanying images.

The authors have no conflicts of interests to disclose.

Figure Legends

Figure 1 Several scars and local eminence could be seen on the patient's left chest wall.

Figure 2 CT examination showed that nail shadows were found in the left anterior chest wall, heart, left lung and stomach(2A-2D); Massive pericardial effusion was found (2B、2C) .

Figure 3 Twelve nails, about 5cm in length, were removed during the operation (3A); Gastroscopy indicated that one nail was located near the gastric fundus on the anterior wall of the upper gastric body, with one side free and the other side trapped in the gastric wall (3B).

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