Pendulum knife on a stabbed heart

A 46-year-old woman was brought to the emergency department after having been found stabbed at home. A 25 cm long knife was stuck on the anterior left chest, over the cardiac area approximately between the sternum and the midclavicular line on the fifth intercostal space. Two further deep wounds were on the left chest 3–4 cm above the knife along the midclavicular line and on the left hypocondrium. The knife was left in place (figure 1). She was unconscious but responded to stimuli. The vitals were quite stable with BP 100/55 and tachycardia (98 bpm). Murmur was bilaterally present, slightly decreased on the left. Emergency room thoracotomy was not performed upon haemodynamic stability. The knife was swinging in a pendular fashion, concordant with heart beating sounds (video). In O.R. a median sternotomy was performed and the knife was extracted under direct vision. Miraculously the knife penetrated between the pericardium and the left lung, without any cardiac injury and just a small pulmonary laceration. Subsequent laparotomy revealed a through-and-through splenic flexure laceration and injury of the hilum of left kidney with retroperitoneal haematoma, therefore a left nephrectomy and left colectomy were performed. The patient confessed attempted suicide because of depression, but psychiatrist and police raised doubts on her version of events given the multiplicity and depth of the wounds and decided to investigate further.

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Patient consent Obtained.

Contributors SDS wrote the manuscript. MB (Cardiothoracic Surgeon) and SDS (Abdominal Surgeon) operated on the patient respectively on the chest and on the abdomen AB and KK were Assistant Surgeons SDS, AB and GT managed in the patient in ED. AB captured the images in O.R. and edited the video. All Authors reviewed and approved the final draft of the manuscript.


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Figure 1 Patient arrived in ED with the knife in place in the chest.
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