



Thoracic Stab Wound: A Curious Case Report

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Abstract

Self-stabbing is an uncommon method of suicide and attempt of suicide, mostly chosen by young men and persons with a psychiatric history. A curious case of suicide attempt by self-stabbing with a huge pointed knife in a 38-year-old male was presented. A long pointed knife was found entirely embedded in the left hemithorax of the man, but no fatal injury occurred.

Keywords: Suicide attempt; Self-stabbing; Knife

Introduction

Suicide and suicide attempts are a major cause of death and morbidity worldwide [1,2]. Methods that are used in cases of suicide vary among populations and communities, as well as over time. Self-stabbing is an uncommon method of suicide, mostly chosen by young men and persons with a psychiatric history [2-4]. The left part of the chest (where popular knowledge believes the heart to be) represents one of the elected sites of self-inflicted wounds [3,5-7]. The aim of this case report was to present a curious non-fatal left-sided penetrating thoracic trauma, caused by impaling with a huge pointed knife as a suicide attempt.

Case Presentation

A 38-year-old male, a chronic alcoholic who committed an attempt of suicide, was presented to the emergency department of the University Hospital "St. George" - Plovdiv. On initial presentation, the patient was in a prone position, awake, oriented, and hemodynamically stable (blood pressure 140/90 mmHg and heart rate 92 bpm). The external examination revealed no clothing on the chest with entirely impaled knife (just to its handle) in the left hemithorax, approximately 5 cm medially to the left nipple (Figure 1).

Figure 1

Physical examination established respiratory rate 18 breaths per minute and slightly diminished left breath sounds.

Lateral chest radiograph in a prone position of the patient demonstrated a knife, penetrating into the left hemithorax (Figure 2). No evidences of pneumothorax and hemothorax and no widening of the cardiac silhouette were established.

Figure 2

The patient was transferred from emergency department to the operating room of the Department of Thoraco-Abdominal Surgery and left lateral thoracotomy was performed immediately. Exploration of the thoracic cage established that the knife had passed through the

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Figure 1: Impaled knife in the left hemithorax, approximately 5 cm medially to the left nipple.

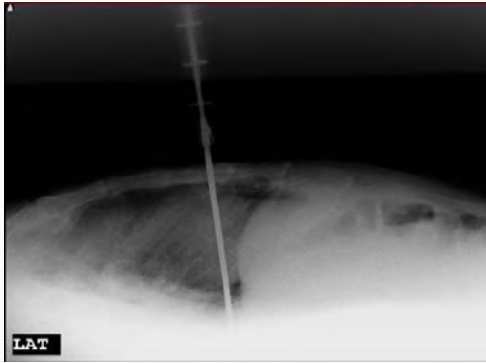


Figure 2: Lateral chest radiograph. A knife, penetrating into the left hemithorax is demonstrated.

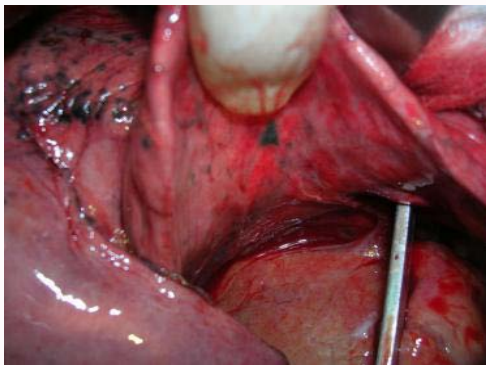


Figure 3: A knife passed through the oblique fissure of the left lung is presented.

oblique fissure of the left lung, causing a small linear laceration of outer surface of the lingula (Figure 3). The point of the knife was in a contact with the pericardium of the left ventricle without pericardial penetration. Approximately 100 ml of blood were aspirated from the left costophrenic sulcus. The knife (blade with length 20 cm and maximal width 25 mm) was removed (Figure 4). The minor lung laceration was over sewed and the chest wall knife's tract was sutured.

Figure 4

The patient was discharged at the 7th day after his admission, without postoperative complications and without any pathology on control chest radiograph.

Discussion

Suicide is a frequent cause of death all over the world but self-stabbing is an uncommon method, constituting no more than 3% of suicides. Although stab wounds of the chest are a relatively common form of penetrating chest trauma, no more than 10.5% of them are self-inflicted [7]. The left part of the chest where it is familiar the heart to be represents the elected site of self-inflicted wounds in a suicide or attempts of suicide [3,5,6]. The aim of this publican was to present a curious case of left-sided penetrating thoracic trauma, caused by impaling with a huge pointed knife as an attempt of suicide.

Mostly young men and persons with a psychiatric history choose self-stabbing as a manner of suicide or attempt of suicide that was confirmed by the presented case [2-5]. Even with no documented psychiatric history in this 38-year-old man, chronic alcoholism could be considered the reason of his behavior.



Figure 4: The removed pointed knife from the thoracic cage is shown.

Three criteria are accepted as classical for self-inflicted suicide and attempts of suicide: the presence of several self-inflicted stabs, hesitation marks and the absence of clothing [2,3]. However, the presented case did not resemble the classical cases. There was only one single incision and no hesitation marks.

Knives are the most popular weapons in penetrating stab wounds of the chest [1,8]. The force needed for a knife to penetrate the chest depends on several factors. One of them is the sharpness of the knife. Sharp "pointed" knife is one of the most common types of knives for homicides and suicides, just like in the presented case [8].

Usually, in cases of stab injuries, the knives are exceptionally found at the time when medical personnel arrive at the scene [9]. Curiously, in the presenting case the knife was found embedded into the chest and the man himself gave explanation about his attempt of suicide.

Extraction of embedded objects from the chest can result in major bleeding, hemodynamic deterioration and rapid death of the victim. That is why penetrating objects impaled in the chest are left undisturbed, in order to be removed in the operating room under direct vision [10-12]. There is a publication on VATS approach to guide extraction of embedded knife from the chest [13]. However, thoracotomy is usually used, just like in the presented case.

Another curiosity in the presented case was the track of the knife's blade in the thoracic cage. It passed through the oblique fissure of the left lung along to the inter lobar segment of pulmonary artery and lower left pulmonary vein. The point of the knife was found to be in contact with the pericardium, but without injuring of the heart and major blood vessels. There was no pneumothorax and only minimal hemothorax was established.

Conclusion

In conclusion, this case presented a curious attempt of suicide by self-stabbing of the chest with a huge pointed knife without life-threatening injuries.

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