Stab Injury to Chest

Prateek Rastogi

Abstract

Fatal stab wounds to chest are common in homicides as well as suicide. The presentation and circumstantial evidence goes a long way in differentiating the manner of death. Herein, a case is presented where a young male was found dead on railway station in suspicious circumstances.

Keywords: Stab Wound; Chest Injury; Homicide.

Introduction

Stab wounds to chest are a common finding in homicides, suicides as well as accidental death. The chest is commonly chosen as a site for assault as well as suicides knowing well that heart and lungs are located here and a blow may be fatal. Commonly sharp weapons are employed and stab is preferred injury with an intention to reach the heart, uncommonly, the site may be involved in accidents during a fall on a sharp pointed object. Although, there is an element of doubt involved but a careful autopsy, crime scene investigation and account of eye witnesses if available can help in diagnosis. Here, a case is presented where a young male was found dead seeming an air of suspicion.

Case Report

As per the information furnished by police a young male aged about 27 yrs was found dead at the platform of railway station in early hours of morning. Portion of shirt on front of chest was blood stained. A small wound measuring 2.5x1 cm was seen on front of chest. There was a doubt regarding its nature being

Authors affiliation: Associate professor, Dept. of Forensic Medicine, Kasturba Medical College, Mangalore (Manipal University).

Reprints requests: Prateek Rastogi, Associate professor, Dept. of Forensic Medicine, Kasturba Medical College, Light House Hill road, Mangalore-575001(Karnataka).

Email: prateek.rastogi@manipal.edu

homicidal or occurring due to fall on a pointed surface in intoxicated state. Body was subjected to post mortem examination on the same day in afternoon with a request to preserve viscera.

On external examination body measured 170cms in length and weighed 54kgs. Body was cold to touch and rigor mortis was present all over the body. Post mortem lividity was present at back and fixed. A stab wound measuring 2.5x1cm was seen in right 5th intercoastal space in midclavicular line on front of chest. The wound was directed from lateral to medial and from below upwards. IT perforated the 5th intercoastal muscle, pleurae, anterio-medial border of right lung and pericardium before penetrating the medial border of heart (right ventricle). Pericardium contained 30 ml of blood, Stomach contained whitish fluid without any abnormal odor, and right lung was pale on cut section. No other external injuries are present on the body. All other body orifices are intact. Cause of death was opined as penetrating sharp force trauma to the heart.

Discussion

Injuries to the chest can be fatal in majority of situations. Cause of death may vary from trauma to heart, lungs, ribs, major blood vessels or even diaphragm resulting in hemorrhage, air embolism, tamponade, respiratory failure [1-3]. The injuries may range from blunt force impact as in road traffic accidents; stampede etc., to sharp force trauma as in stab wounds [4-5]. In present case, the deceased was found dead on a railway platform in early hours of morning raising suspicion. A single wound was seen

on front of chest and there were no eye witnesses to the event. Post mortem examination showed the single stab wound which penetrated the heart after perforating the intervening structures in a straight line. Intoxication was ruled out by viscera examination. The cause of death was clear and further investigations were done to conclude the manner of death. Presence of body on platform with no sharp structures nearby ruled out accident. Absence of any knife or other sharp object, absence of motive ruled out suicide and pointed towards a possible homicide.

References

 Campbell PR, Kerridge R. Fatal traumatic air embolism following a stab wound to the chest. Aust N Z J Surg. 1993; 63(4): 307-9.

- 2. Graham JM, Beall AC Jr, Mattox KL, Vaughan GD. Systemic air embolism following penetrating trauma to the lung. Chest. 1977; 72(4): 449-54.
- 3. King MW, Aitchison JM, Nel JP. Fatal air embolism following penetrating lung trauma: an autopsy study. J Trauma. 1984; 24(8): 753-5.
- 4. Singh VP, Sharma BR, Harish D, Vij K. A critical analysis of the stab wound on the chest-A case report. Journal of Indian Academy of Forensic Medicine 2004; 26(2): 77-79.
- 5. Rastogi P, Shetty BSK. A fatal stab wound with scissors. Journal of Indian Academy of Forensic Medicine.2009; 31(1): 60-61.