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Case Report

Body Below the Train: An Autopsy in Vain? A Case Report

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ABSTRACT

Autopsy surgeons in India encounters vast varieties of cases, among them most of the fatal cases are due to heavy machine trauma either due to road accidents or railway-associated injuries. The most common manner of death in these cases is accidental. However, it is quite difficult to designate a case of road side or railway-associated incident as a homicidal due to run over injuries resulting into non-availability of intact soft tissue and bone so that one can differentiate between ante-mortem and post-mortem injuries. Railway-associated injuries are sometimes used to conceal the homicidal manner of death. In such cases, the autopsy surgeon should look for the injuries which are not in accordance with the history and circumstantial evidences with investigation report should be given due credence in such cases. One such case we are discussing here in which the homicidal manner of death was projected as an accident in which thorough examination of the body revealed the manner of death as homicidal.

Keywords: Disintegration, Railway-associated injuries, Homicide, Autopsy

INTRODUCTION

Crime rate in India is increasing day by day. All the authorities involved directly or indirectly to the criminal incidents like investigating agencies, health facilities, autopsy surgeons, judiciary bodies and forensic laboratories are heavily loaded with work with their pendency increasing exponentially. Many homicidal cases are being daily reported and encountered with different manners and psychology of the assailant. Psychology of the assailant can be ascertained after autopsy by type of fatal injury present over the body, pattern and distribution of injury. After committing a homicide, the first and foremost thing attempted by the assailant is to conceal it either by disposing off the whole body or by disfigurement of face of the victim so that it cannot be identified later. Even the manner of death can also be tried to disguise as one another. The ante-mortem injuries are concealed by the post-mortem injuries and it is difficult for the autopsy surgeons to decide the manner of death like in roll over injuries. Definite manner of death in such cases cannot be ascertained and more weightage should be given to the circumstantial evidences and crime scene visit report. The most common methods of disintegration and disfigurement of a body after murder are burning or burial of the body or body is thrown over the road or railway tracks so that the homicidal injuries will be

superimposed by other types of injury. We will be discussing here one such case in which the ante-mortem homicidal injuries were tried to be concealed as a suicide with the help of railway track injuries.

CASE REPORT

Received an extensive disintegrated dead body of a male individual wrapped in a white sheet of cloth (Figure 1). Both the upper limbs were found detached from rest of the body and were found inside the torned sleeves of jacket. The head was found attached to the rest of the body with a tag of skin of neck. The face was reconstructed anatomically and then recognised by the concerned IO and the identifiers for confirmation (Figure 2). Skin, soft tissues and muscles over the face were found crushed. The underlying facial bones and mandible were found fractured and crushed with crushed brain matter extruded through it. The face was deformed and could not be identifiable. The fractured ends of bones showed no infiltration of blood in their bony trabeculae. The right upper arm was found detached from the right shoulder joint exposing the glenoid cavity leaving behind the stump with a crushed and lacerated soft tissues and upper end of right humerus bone was found wound of size 16 × 14 cm. The wound margins were yellowish and irregular (Figure 3). The underlying right humerus bone was found fractured into multiple pieces. The fractured ends of bones showed no infiltration of blood in their bony trabeculae. The left upper arm was found detached from the left shoulder joint exposing the glenoid cavity leaving behind a crushed wound of size 15 × 13 cm. The wound margins were yellowish and irregular. The underlying left humerus bone was found fractured into multiple pieces. The fractured ends of bones showed no infiltration of blood in their bony trabeculae. Multiple brownish yellow abrasions were present over the anterior aspect lower two-third of chest, lateral aspect of both sides of anterior abdomen of wall suggestive of post-mortem abrasions (Figure 4). The head and face were almost detached from the rest of torso at the level of C3–C4 level except a tag of skin on the nape of neck. The stump of both the detached part were showing muscles without any vital reaction and the trachea was found separated through and through with no infiltration of blood suggestive of post-mortem nature of injury. After reconstruction of face, the skin around the both eyes showed black eyes injuries noted over the bodies were: (1) A lacerated wound of size 4.25 × 1 cm was present obliquely over the right parietal region of scalp situated 3 cm right to midline and 13 cm behind right supraorbital ridge. The wound margins were reddish, irregular and tissue bridging was evident. On dissection, underlying and surrounding layers of scalp were found ecchymosed. On reflection of scalp layers, a diastatic fracture of sagittal suture of length 9 cm was present. On opening of skull vault and removal of dura, diffuse subdural haemorrhage and diffuse subarachnoid haemorrhage. The fractured ends of bones showed no infiltration of blood in their bony trabeculae. (2) A lacerated wound of size 4.25 × 1.25 cm was present obliquely over the right parieto-occipital region of scalp situated 2 cm right to external occipital protuberance and 6 cm above nape of neck. The wound margins were reddish, irregular and tissue bridging was evident. On dissection, underlying and surrounding layers of scalp were found ecchymosed. (3) A lacerated wound of size 4 × 1.25 cm was present obliquely over the left high parietal region of scalp situated 2.5 cm left to midline and 10 cm behind left supra orbital ridge. The wound margins were reddish, irregular and tissue bridging was evident. On dissection, underlying and surrounding layers of scalp were found ecchymosed. (4) A lacerated wound of size 4 × 1 cm was present obliquely over the left side of occipital region of scalp situated 2.5 cm left to external occipital protuberance and 4 cm above the nape of neck. The wound margins were reddish, irregular and tissue bridging was evident (Figure 5). On dissection, underlying and surrounding layers of scalp were found ecchymosed. Stomach contained about 50 cc of yellowish mucoid material. Mucosa was pale. All the organs were pale on cut

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

section. The cause of death in this case was given as head injury described and its complications.

DISCUSSION

Autopsy plays an important role in determining the below-described three terminologies. Designation of an autopsy as an obscure, negative or undetermined is a common assumption practiced by the medical officer or forensic expert now-a-days, but it is commonly the inability of them to diagnose or observe the findings that helps in determining cause of death.

The cause of death is any injury or disease that produces a physiological derangement in the body that results in the death of the individual. The mechanism of death is the physiological derangement produced by the cause of death that results in death. The manner of death explains how the cause of death came about. Manners of death can generally be categorized as natural, homicide, suicide, accident or undetermined [1].

Various other factors like environmental scavengers, man-made artefacts and an attempt to conceal the actual crime are the challenges faced by the autopsy surgeons. Disintegration of body means converting it into multiple small pieces so that it is difficult to prove the individuality of the person. A major initial problem is to discover how many bodies are represented and to try to allot the correct fragments to the right individuals [2].

If the remains are mummified, skeletonized, decomposed, burnt or otherwise disfigured to a point at which visual identification is impossible or uncertain, or if the identity is unknown, other methods of establishing the identity of the remains must be used, but the autopsy cannot be delayed while this is done [3].

The extensive mutilation seen in most train-related fatalities provides an opportunity to conceal a homicide by deliberately placing a body onto railway tracks following a homicide. Therefore, determination of the time of the injuries relative to the time of death is of great importance [4].

An important aspect of the intent of injury, that is, intentional self-harm versus accidental, could not be analyzed in our study because of associated biases during data collection. Most of the time, the intent of injury is reported by survived patients or based on narratives and interpretations of bystanders, fellow passengers and train drivers, thus subject to bias. There is also no linkage of judiciary data with medical records. In developed countries, most of the injuries recorded are deliberate, constituting more than two-third fatalities among all train-associated injuries [5].

Virdee et al. reported that mortality rates between the accidental and intentional injury groups were almost the same, highlighting that those who attempt railway suicide are not more likely to die [6].

Limosin et al. showed that regardless of location or intent, train-associated injuries are caused by similar mechanisms and can be regarded as 'person hit by train' events leading to the same severe consequences [7].

It is apparent in the present study that decapitation injury, that is, separation of the head from the trunk or transection of the trunk without other associated major injuries, is almost always suicidal in nature. Whereas decapitation with multiple injuries may be either suicidal or accidental in nature, transection of the trunk with multiple injuries occurs more frequently in accidental cases. Multiple fatal injuries without decapitation or transection and solitary injury to the head, thorax or abdomen are more in favour of accidental railway deaths. Decapitation and transection injuries with other associated injuries will be caused when a person lies undisturbed on the railway track placing his neck or trunk to be crushed by running train. This position indicates fearlessness and strong determination of the victim to commit suicide (un-accidental nature of the injury). Accidental railway deaths (63.83%) outnumber the other manners of death. Homicidal event is extremely rare. Decapitation and transection of the body are in favour of suicides, but a crime scene visit should be considered to help in reconstruction of the incident. The crime scene examination in railway injury cases often revealed blood staining on the track and spurting of blood over the metal and the track. Thus, the ante-mortem nature of the railway injuries could be well established in the present case study material that accidental railway-related death is most common, followed by suicidal and very rarely homicidal. However, in the present study only 1 out of 94 case of homicide was detected where death was due to strangulation followed by post-mortem traumatic transaction at the level of trunk as a means of disposal and to mislead the police investigation [8].

CONCLUSION

Determining of manner of death in an extensively disintegrated of mutilated body is very difficult and challenging that brings incertitude in practicing the autopsy medicine. However, extensive disintegration of body itself draws attention of foul play or homicide.

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Ethical Clearance: In Indian legal system, consent of the relatives is not necessary for autopsy performed in medico-legal cases. As this is a medico-legal autopsy, the particulars of the deceased are not revealed and kept confidential with the authors, so ethical clearance is not required in this present case report.

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