

CASE REPORT

Dilemma of the General Surgeon in a Medico-Legal Autopsy of a Case of Traumatic Asphyxia: A Unique Case Report

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Abstract:

The ability to perform medicolegal autopsy does not necessarily give a registered medical practitioner the expertise over it which is a major setback in solving medicolegal cases. Manner of death is very much important to decide as like cause of death and time since death for the proper disposal of justice to the dead. Traumatic asphyxia is a type of mechanical asphyxia, where respiration is prevented by external pressure on the body, at the same time inhibiting respiratory movements and compromising venous return from the head. Here we present a case of traumatic asphyxia where a general surgeon who conducted the autopsy could not be convinced by the police investigation that tractor accident was the cause for which the deceased succumb to death without any external & internal injuries and meanwhile got confused with the findings in the body suspecting it to strangulation death which was finally resolved by the opinion of the subject expert.

Keywords: Registered medical practitioner; Medicolegal autopsy; Traumatic asphyxia; Inquest.

Introduction:

General surgeons are doctors specialized in surgical procedures of the living body for diagnosis and treatment. In comparison to them, autopsy surgeons are those who are specialized to examine dead bodies to elicit the cause and manner of suspicious unnatural death for the administration of justice.

The unnatural deaths could be homicidal, accidental, suicidal, and rarely undetermined in origin depending on the circumstances of the death.¹ The doctor holding a post-mortem examination should be familiar with the normal and pathological appearance of the viscera and should be able to interpret post-mortem findings by proper training and experience, otherwise miscarriage of justice is sometimes a possibility.² As per the rule for medico-legal autopsy, an authorized government medical officer is allowed to conduct a post-mortem examination in a morgue attached to the hospital, not in a private room.³

The registered medical practitioner (RMP) is allowed to conduct an autopsy irrespective of the specialization or no specialization of the subject of forensic medicine. It is observed that due to the lack of expertise of the RMP, some of the medico-legal cases remain unsolved or obscured. Here we present a case of traumatic asphyxia where a general surgeon who conducted the autopsy could not be convinced by the police investigation that tractor accident was the cause for which the deceased succumb to death without any external & internal vital injuries present.

Case Report:

An average-built 21 years old male, tractor assistant by occupation, not being a known case of any medical illness in the past was brought dead in a tertiary health center with a history of minor tractor accident. While the tractor was reversing the deceased got compressed in between a concrete wall and the trolley of the tractor and collapsed. Inquest was conducted by the investigating officer on the dead body of the deceased in the presence of relatives and the tractor driver. They all agreed that the cause of death was a tractor accident. Autopsy was conducted in the mortuary of the nearby govt hospital by the duty doctor, who was a surgery specialist. On external examination (Figure-1), a linear abrasion of length 12 cm, lying obliquely on the back of the right chest over the right scapula, a linear abrasion on the front of the right knee joint of length 5cm, and an abraded contusion of size 1.5cm x 0.5 cm on the dorsum of the right big toe. "I" incision was given from chin to pubic symphysis for internal examination of the thoraco-abdominal cavity. On incision of the neck, a gush of dark frank blood came out, which brought the autopsy surgeon towards a bias regarding death due to strangulation (Figure-2). All the bones of the chest cage were intact. The anterior border of the left lung showed a line of hemorrhage without any other injuries (Figure -3). Both lungs were almost intact, congested, and oedematous. The internal examinations of the abdomen showed signs of congestion without any internal mechanical injuries. No characteristics smell of any poison or features of intoxication were observed from the stomach except semi-digested food particles of rice. Cranial cavity findings were unremarkable with features of deep congestion. The autopsy surgeon was unable to reach an opinion regarding the cause of death. Regarding the manner of death as mentioned in the inquest to be accident, was not convincing after performing the postmortem. Considering the congestive features, the autopsy surgeon suspects that the cause of death could be of

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Figure 1. Shows the linear abrasion on the back.

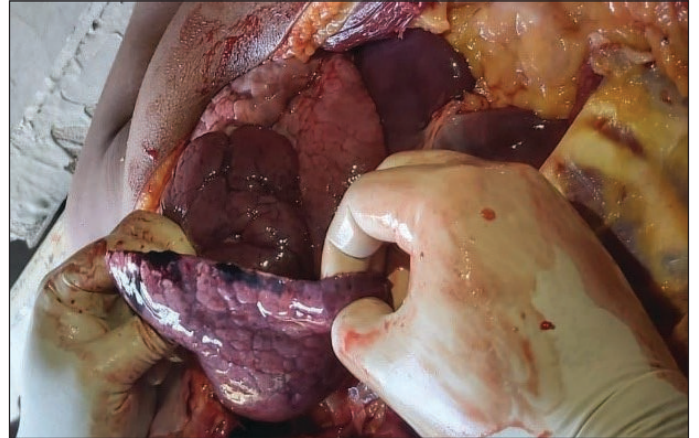


Figure 3. Exhibits marginal haemorrhage on the anterior border of left lung.



Figure 2. Illustrates the exploration of neck showing gush of blood.



Figure 4. Depicts line of demarcation on the chest.

compression the neck by some soft broad ligature material possible strangulation and the manner is homicidal. The culprit behind this case is the tractor driver as it was not witnessed by anyone. Before reporting the case, the autopsy surgeon came with the photographs taken by him to the author for discussion, where he was convinced by, seeing the marks of demarcation which lies in the upper chest (Figure -4) and the excessive bleeding on the neck due to severe congestion and edema of the head & neck above the line of demarcation. Now the manner and the cause of death were confirmed as suffocation resulting from traumatic asphyxia and consistent with the history of the police investigation.

Discussion:

Traumatic asphyxia is a rare condition presenting with cervicofacial cyanosis and edema, petechial and subconjunctival hemorrhage of the face, neck and upper chest that occurs usually due to a compressive force to the thoraco-abdominal region but has also been associated with asthma, paroxysmal coughing, protracted vomiting, and jugular venous occlusion.⁴ It is first described in 1937 by Oliver d' Angers in his observation of cadavers who were trampled.⁵ Later, Perthes added some other characteristic features in living like cyanosis, sub-conjunctival hemorrhage, contusion pneumonia, and hemoptysis to the initial description to form a complex of symptoms called Perthes like

syndrome.⁶ Traumatic asphyxia is also referred by other names traumatic cyanosis, compressive cyanosis, traumatic apnoea, and crush asphyxia.^{6,7} It is characterized by the association of florid red or blue congestion of the face and neck (Masque ecchymotique) and a well-defined demarcating line between the discoloured upper portion of the body and the lower normal part.⁷ Both the pathognomonic features were found in our case to solve the confusion of the autopsy surgeon. On average 2 to 5 minute compression period is sufficient to develop traumatic asphyxia.⁸ These cases are usually seen as a result of motorcycle accidents, trample deaths, falls of walls and heavy machines/furniture on the thoraco abdominal wall as in our case of a tractor accident. Though this is common in traumatic cases but no definite direct trauma history could be obtained from the face and neck area of the deceased as also observed in our case. It is also rarely seen in deep-sea diving, epileptic seizures, difficult delivery, and asthmatic attack. Traumatic asphyxia cases are rarely seen in clinics. The prognosis of this syndrome depends on the nature and duration of the compressive force and the presence of other injuries. Supportive treatment such as oxygenation and elevation of the head to 30° is usually sufficient in the management of these patients.

Conclusions:

Forensic medicine experts are very less in numbers in comparison

to the rise of medico-legal autopsies and cases in various parts of our country. A registered medical practitioner is allowed to conduct an autopsy because of the lack of our experts to meet the caseloads. The cases of accident, murder and suicide where suspicion arises, it is better to consult with the experts of that branches so that justice will be easily carried out.

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