

Case Report

AN UNUSUAL ARTIFACT

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Abstract:

Artifact means alteration, modification, addition or absence of some post mortem findings due to certain causes mostly arising after death. Artifact may originate at the time of death, after death, at the site of death during transportation of body from site of crime, in the mortuary, after its arrival and before the conduction of the postmortem examination, during process of postmortem examination, while processing viscera and other materials for laboratory examination and also in the forensic science laboratory during testing of the material. So far autopsy surgeon is concerned by check and cross check of the body whenever doubt arises in his mind about something necessarily with the help of independent source till specific conclusion as to cause of death is made. Thus forensic expert through meticulous autopsy identifies the artifact and removes the doubt. A dead body of a middle aged man was referred to the department from one of the nearby district hospital in the summer season of 2013. This referral was on account of 'hanging with cut throat injury'. The body was found hanging from the gallery of first floor in the deceased home. It is not unusual for a forensic expert to encounter a victim of suicidal hanging, no lesser if the body is putrefied, but on meticulous autopsy and careful examination of the neck an artifact in the form of cut throat injury were encountered. The paper describes the unusual artifact looking like cut throat injury due to typical hanging phenomenon with self speaking illustrations.

Keywords : Artifact, Hanging, Cut throat injury.

Introduction:

An artifact is any artificial product; any structure or feature that is not natural, but has been altered by processing⁽¹⁾. The term is used in histology and microscopy for a tissue that has been mechanically altered from its natural state. Any change caused or a feature introduced into a body after death that is likely to lead to misinterpretation of medico-legally significant ante-mortem findings is considered to be an artifact⁽²⁾. Post-mortem artifacts are due to any change caused or feature introduced into the body after death. They are physiologically correlated to natural state of the body or tissues or the disease process to which a body was subjected prior to death. Ignorance or misinterpretation of such post-mortem artifacts can lead to:

- a) Wrong cause of death,
- b) Wrong manner of death,
- c) Undue suspicion of criminal offence,
- d) A halt in the investigation of criminal death,
- e) Unnecessary spending of time and effort as a result of misleading findings or
- f) Miscarriage of justice⁽³⁾.

Every Forensic Expert must, therefore, be aware of missing out such crucial entities or he can really be in a "soup" of his own making!

Case report

A dead body of middle aged male referred for expert autopsy from civil hospital with history of ligature encircling the neck and deep cut throat injury over the neck anteriorly. As per police inquest panchnama and history given by police and relatives of the deceased the

person locked the room from inside and hanged himself with a thick nylon rope of 3 cms diameter, from the gallery of first floor in his house. He was found hanging 3 feet below the roof of gallery, the hanging was typical in nature. The body remained hanged for 18 hours inside the room. Later on neighbors of the deceased informed police about foul smell emitting from the house. The police team broke the door open and found the person in typical hanging state. The police cut the rope, doctor declared the person dead. The police officer noted the ligature mark encircling the neck with cut throat injury anteriorly. This cut throat injury created the suspicion in the minds of civil hospital doctors and police officers thinking of foul play. However considering the following autopsy findings

- a. Body was in early decomposition state
- b. Cyanosis of finger nails.
- c. Height of body 174 cms, weight 80kgs,
- d. Laceration (artifact) of size 10cms x 6cms x muscle deep over anterior aspect of neck underlying the ligature mark. The edges were lacerated, ends obtuse.

It clarified that it is an artifact and not the cut throat injury. The artifact in the form of cut throat injury is probably due to the early decomposition changes at larynx and pharynx site and external compression of neck by thick nylon rope and due to weight of the body.

External findings of the body at Autopsy:

The body was in an early stage of decomposition, it being the second day since the purported last date of being seen alive. Mouth open, tongue bitten, finger nails cyanosed, height of body 174 cms, weight 80kgs. There was a ligature material in the form of a nylon rope around the neck in a single ply with a fixed knot, placed high above the thyroid cartilage in oblique plane. The same was carefully removed and preserved. The ligature mark was that found in any typical case of hanging. Ligature mark of 2.5 to 3 cms in width encircles the neck with a knot mark over the occiput. An unusual finding was laceration of size 10 cms x 6 cms x muscle deep over anterior aspect of neck underlying the ligature mark. The edges were lacerated, ends obtuse. This clears that it is an artifact and not the cut throat injury. (Photograph 1- 6).

Internal findings of the body

The internal findings in the neck were of ante-mortem hanging. While exposing deepneck structures, an infiltration of blood were noted along the ligature mark with contusion with hematoma of neck muscles. On dissection Fracture of C2, C3 and C4 vertebrae with underlying contusion of spinal cord (Photograph 7).



Photograph 1: Showing Congestion of eyes and tongue bite.



Photograph 2: Showing cyanosis of finger nails.



Photograph 3: Showing Post mortem lividity on hand.



Photograph 4: Showing Ligature mark encircling neck.



Photograph 5: Artifact looking like cut throat injury



Photograph 6:Artifact looking like cut throat injury.



Photograph 7: Internal findings of neck underlying ligature showing neck muscle contusion with hematoma

Opinion:

The cause of death was opined as 'Asphyxia due to hanging' and the manner of death 'Unnatural'.

Discussion:

Post-mortem artifacts are a common occurrence in all autopsies and if not accounted for with due care can lead to wrong interpretation of important findings and vice versa. Decomposition of the body is responsible for perhaps the most common and the most significant of the artifacts⁽⁴⁾. The red cells are the most affected, sedimenting through the lax network, but plasma also drifts downwards to a lesser extent causing an eventual post-mortem dependent oedema which contributes to skin blistering which is a part of early post-mortem decay⁽⁵⁾. Many a time, untrained and even very experienced autopsy surgeons reach wrong conclusions during post-mortem examinations. This unusual finding in the form of cut throat injury is due to the early decomposition changes at larynx and pharynx site and external compression of neck by thick nylon rope and due to heavy weight of the body.

Conclusion:

Meticulous autopsy clearly differentiates the finding of artifacts and helps the autopsy surgeon to come to conclusion as to cause of death. This clears the suspicion of the relatives and police officers and helps in disbursement of justice.

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2. Dr. NS Jagtap, Resident Doctor, Department of Forensic Medicine, Grant Government Medical College and Sir J J Hospital, Mumbai 08.

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