

Case Report

Artifact Due to Cervical Collar in a Delayed Hanging Death

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Abstract

Artifact is any change caused or feature introduced in the natural state of the body that is likely to be misinterpreted at autopsy. We present a case of a young female who allegedly hanged herself and died four days after the incident in a hospital. There were some unusual findings on her neck which raised the suspicion about the manner of death but were later found to be due to the cervical collar used to stabilize the neck of the deceased. This case report intends to highlight the importance of differentiating the artifacts from ante mortem injuries in deciding the cause and manner of death. The authors also aim to add to medical literature about the type of therapeutic artifacts which could be found in a hospitalized person in a hanging case.

INTRODUCTION

Artifact is any change, alteration caused or feature introduced in the natural state of the body that is likely to be misinterpreted at autopsy [1-3]. They may be classified as Therapeutic, Agonal and postmortem Artifacts [3]. An inexperienced autopsy surgeon sometimes might consider the artifacts as ante mortem injuries which can result in the misinterpretation of the cause and manner of death. We present a case of a young female who allegedly hanged herself and died four days after the incident in a hospital. There were some unusual findings on her neck which raised the suspicion about the manner of death but were later found to be therapeutic artifacts. The authors also aim to add to medical literature about the type of therapeutic artifacts which could be found in a hospitalized person.

CASE HISTORY

The deceased was admitted in a hospital by her husband around midnight with the alleged history of hanging. The husband gave the statement that he and his wife slept with their children at 11:00 PM. After some time he got awake by some sound and found that his wife had hanged herself from a 'Chunni'- a soft, long, broad collapsible garment similar to a stole or scarf which is a part of the traditional Indian dress - "Salwar Kameez". He immediately called his landlord and neighbors. They together brought down the deceased, removed her ligature material and took her to the hospital. She expired on fourth day of her admission.

Autopsy findings

Cyanosis of lips and nails was present. The following external injuries were present over the body:

1. A dry parchmented brownish ligature mark of width 3 cm was present in the anterior aspect in the middle one third on neck. The ligature mark was running obliquely, laterally and backwards merging with the hairline over the posterior aspect of neck. The ligature mark was 6 cm below mentum and 8 cm above suprasternal notch in the anterior midline of neck. The ligature mark is prominent over right lateral and left lateral aspect of neck. Ligature mark is 2 cm below left mastoid tip and 1.5 cm below right mastoid tip on lateral aspect of neck. Total neck circumference was 32 cm. The underlying tissue was dry, pale, glistening and devoid of any hematoma or extravasation. Thyroid complex was intact. Tracheal mucosa is congested.
2. A bluish brown contusion of size 3x1 cm was present on chin.
3. Two parallel C - shaped horizontal bluish brown contusions of width 0.8cm, length 7 cm and separated by a distance of 5.5 cm are present over the posterior and lateral aspect of neck (Figure 1,2).

Internal organs were congested with petechial hemorrhage present over the brain and lungs.

DISCUSSION

The cases of fatal pressure over neck are complex, controversial and a common problem for both the autopsy surgeon and police investigators [4]. The authors in their experience have seen that the cases of hanging are sometimes distinguished by a very thin line from ligature strangulations.

In this case the police was informed by the hospital authorities



Figure 1 Parallel C - Shaped contusions on posterior - lateral aspect of neck.



Figure 2 Ligature mark with C - Shaped contusions on right side of neck.

when the deceased was admitted there by her husband. The police didn't have first hand access to the crime scene. The ligature material was already removed before bringing her to the hospital. No suicide note was recovered by the police. The victim was never declared fit to give her statement to the police during her hospital stay. All these factor along with injury no 2 & 3 raised a doubt about the manner of death. The ligature mark in a case of hanging is abraded, brownish, parchment type, do not completely circles the neck and have a gap in the skin at the point of suspension. The ligature mark is not associated with bruising [4,5]. The ligature mark and internal findings in our case were consistent with a case of hanging [4,5]. On perusal of the MLC report of the hospital, it was found that only the ligature mark was present and injuries no 2 & 3 were not present at the time of admission in the hospital. The police officer was asked to retrieve the complete hospital records. The same was duly complied and detailed records were submitted. The perusal of day to day treatment records revealed that the neck of the patient was stabilized after her admission by a cervical collar. The injuries no 2 & 3 easily corroborated with the same.

Autopsy surgeon should be able to differentiate such artifact from ante mortem findings particularly in deciding the cause

and manner of death. But this can only be gradually learned by experience with time. So, if some findings are found on the bodies which are confusing or not correlating with the manner or cause of death, the detailed history should be taken from the police or relatives about the hospital stay of the patient. In our country, the current practice by police is to provide the Medico legal Report, death summary and death certificate along with other inquest papers. These documents do not have the complete details of the treatment procedures of the patient during his stay in the hospital. So, it is always advisable and preferable to have the complete hospital records of the deceased in case of admitted patients. The authors agree that in India it is very difficult to hold the autopsy for the want of hospital records. In such cases the help of modern technology can be taken. The relevant hospital treatment records can easily be scanned or photographed and sent by electronic methods like mail, whatsapp etc.

In the present case, if the autopsy surgeon would have acted in a hasty manner and had not gone through the hospital papers, he might have given a wrong opinion about the manner of death which could have led to the harassment of an innocent person. Many cases regarding artifacts being produced due to postmortem phenomenon has been reported [6-9]. But we could not find any case similar to ante mortem therapeutic artifact in a hanging death.

REFERENCES

1. Vij K. Textbook of Forensic Medicine and Toxicology: Principles and practice. 5th ed. New Delhi: Elsevier India Pvt Ltd; 2011. Chapter-2; Medicolegal Autopsy, exhumation, Obscure Autopsy, Anaphylactic deaths and Artefacts: 31-34.
2. Reddy KSN. The essentials of Forensic Medicine and Toxicology. 25th ed. Hyderabad: K Suguna Devi; 2006. Chapter-22, Artefacts; p420-424.
3. Rao NG. Textbook of Forensic Medicine & Toxicology. 2nd ed. New Delhi: Jaypee Brothers. Chapter 14; Postmortem examination. 2010; 188-189.
4. Knight B, Saukko P. Knight's Forensic Pathology, 3rd ed. London: Arnold. Chapter 15; Fatal Pressure on Neck. 2004; 368- 394.
5. DiMaio VJ, Dimaio D. Forensic Pathology, 2nd Ed. Boca Raton: CRC Press. Chapter 8, Asphyxia. 2001; 245-262.
6. Burke MP, Olumbe AK, Opeskin K. Postmortem extravasation of blood potentially simulating antemortem bruising. Am J Forensic Med Pathol. 1998; 19: 46-49.
7. Tsokos M, Matschke J, Gehl A, Koops E, Püschel K. Skin and soft tissue artifacts due to postmortem damage caused by rodents. For Sci Intl. 1999; 104: 47-57.
8. Sauvageau A, Racette S. Postmortem Changes Mistaken for Traumatic Lesions: A Highly Prevalent Reason for Coroner's Autopsy Request. Am J Forensic Med Pathol. 2008; 29: 145-147.
9. Campobasso CP, Marchetti D, Introna F, Colonna MF. Postmortem Artifacts Made by Ants and the Effect of Ant Activity on Decompositional Rates. Am J Forensic Med Pathol. 2009; 30: 84-87.

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