

Case Report

A CONFLICTING CASE OF STRANGULATION: A CASE REPORT

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Abstract

A female aged 25 year was brought with a history of found unconscious at home, the body was sent to Government Medical College and Hospital, Aurangabad, Maharashtra for a medico legal post mortem. Deceased had a ligature mark over anterior aspect of neck suggesting it as a case of hanging accompanied by few external injuries like abrasions over face and chest consistent with fall at ground level. On conclusion of autopsy, the cause of death was found to be strangulation.

The process of strangulation, whether by hand (manual) or by ligature, results in blunt force injury of the tissues of neck. The pattern of these injuries allow us to recognize strangulation as a mechanism, and to distinguish strangulation from other blunt injuries including hanging, traumatic blows to the neck, and artifacts of decomposition.^[1-7]

These classical findings were absent in this case. Absence of these characteristic findings could easily misinterpret such a case as that of hanging. Therefore this case is presented.

Key words: Ligature mark, abrasions, neck tissue injuries, homicide.

Introduction

With its relatively small diameter, lack of bony shielding, and close association of the airway, spinal cord, and major vessels, the human neck is uniquely vulnerable to life-threatening injuries. Throughout recorded history, various methods of strangulation (i.e. disruption of normal blood and air passage in the neck) have been used by both assailants and penal systems to produce injury and death.^[8]

“Strangulation is the condition of violent asphyxia death in which, the exchange of air between the atmosphere and the lungs is prevented by way of constriction of neck by means of a ligature material or by some other means, without suspending the body of the victim, where the force of constriction is applied from outside (exogenous in origin) and is not the weight of body or the head of the victim.”^[9]

Case

On 17th October 2012, female aged 25 year with a history of found unconscious at home, was brought dead to Government Medical College and Hospital, Aurangabad Maharashtra. She was subjected to strangulation by use of sari, the body was sent for a medico legal post mortem.

Post Mortem Finding

The body was of normal built female. There were following injuries over the body.^[10]



Photo 1: Ligature mark over anterior neck.



Photo 2: Abraded contusions over inner lips

Ligature mark at front of the neck above the level of thyroid cartilage which was running horizontally backwards and upwards. Abrasion of size 0.4 x 0.5 cm at the tip of nose. Multiple abraded contusions ranging from 0.2 x 0.2 to 1 x 1.6 cm over inner aspect of lips. A small linear abrasion of length 1.cm over right para sternal region of chest, near xiphysternum. Abrasion over right mid submandibular region of size 1x0.6 cm. Contusion observed over upper one third of esophagus, over an area of 3x3 cm, which was the only significant internal autopsy finding going in favor of strangulation.



Photo 3: Neck dissection show clear field.



Photo 4: Contusion over upper esophagus

At the end of autopsy the cause of death was attributed to asphyxia due to ligature strangulation.

Discussion

Strangulation is differentiated from hanging by findings of superficial subcutaneous neck tissue injuries. The ligature mark is at or below the level of the thyroid cartilage. It is circular, continuous, abraded and contused and sometimes parchmentized. The mark of knot is usually in front but may be at any place. In many cases, ligature material is left around the neck after death of the victim. The face is highly congested and cyanosed. The eye may be partly open and the eyeballs and the tongue are protruded. Tardieu's spots are more abundant than in case of hanging and are present on the forehead, temples, eyelids, and under the conjunctiva. There may be wide areas of sub conjunctival hemorrhage. There may be bleeding from the nose. Involuntary discharge of urine and fecal matter is more common in cases of strangulation than hanging. Strangulation, being mostly homicidal, in most cases there may be presence of marks of resistance on the body. The most important internal findings lie in the neck. The subcutaneous tissue underneath the ligature mark is contused, often torn at a few places with gross extravasations. In case of strangulation by ligature, fracture of the superior horn of thyroid cartilage or subluxation between the two sides may be expected.^[9]

These classical findings were absent in this case. Absence of these characteristic findings could easily misinterpret such a case as that of hanging.

Conclusion

Deaths due to compression of neck are one of the most important areas of investigation of unnatural deaths encountered in day to day medico legal works.

The nature of violence at neck is so wide and varied that is challenging task for autopsy surgeon on many occasions. Therefore careful and meticulous study of every case is mandatory to bring out comprehensive / wide verities of observations in deaths due to compression of neck and also to differentiate the manner of deaths.

References

1. Kelly M: Trauma to the neck and larynx [Review]. *Crna* 8(1):22-30, 1997 Feb.
2. Missliwetz J, Vycudilik W: Homicide by strangling or dumping with postmortem injuries after heroin poisoning? *American Journal of Forensic Medicine & Pathology* 18(2):211-4, 1997 Jun.
3. Denic N, Huyer DW, Sinal SH, Lantz PE, Smith CR, Silver MM: Cockroach: the omnivorous scavenger. Potential misinterpretation of postmortem injuries. *American Journal of Forensic Medicine & Pathology* 18(2):177-80, 1997 Jun.
4. Samarasekera A, Cooke C: The pathology of hanging deaths in Western Australia. *Pathology* 28(4):334-8, 1996 Nov.
5. Ortman C, Fechner G: Unusual findings in death by hanging--reconstruction of capacity for action. [German] *Archiv fur Kriminologie* 197(3-4):104-10, 1996 Mar-Apr.
6. Howell MA, Guly HR: Near hanging presenting to an accident and emergency department. *Journal of Accident & Emergency Medicine* 13(2):135-6, 1996 Mar.
7. Maxeiner H: "Hidden" laryngeal injuries in homicidal strangulation: How to detect and interpret these findings. *J Forensic Sci* 43 (No. 4): 784-791, 1998 July.
8. William Ernoehazy Jr. Hanging Injuries and Strangulation Medscape: Online Article. Accessed on 08/10/2013. Available from: <http://emedicine.medscape.com/article/826704-overview>
9. Nandy A. Violent Asphyxial deaths. *Principles of Forensic Medicine including Toxicology*. New Central Book Agency (P) Ltd. 3rd Edi. (2010) 529-30.
10. P. M. No. 2029/12 dated. 17/10/2012.