

Case Report

Atypical Ligature Mark of Hanging Mimicking Ligature Strangulation: A Case Study

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Abstract

A male person aged about 23 years, resident of local area of Kakinada East Godavari district, committed suicide by hanging in his room with the help of white knitted cotton rope from a ceiling fan on 05/11/2012. On receiving the information, police people went to the scene of crime and observed no foul play. The body was sent to the mortuary of Rangaraya Medical College, Kakinada, Andhra Pradesh for the post-mortem examination on 06/11/2012 at 5:00 am. Post-mortem examination conducted on 06/11/2012 at 10:00 am. During the post-mortem examination, ligature mark was observed around the neck. No other external injuries and internal injuries were found except ligature mark. This ligature mark was unusual in appearance with multiple marks, which mimic the strangulation by ligature even though it is case of suicidal hanging. This unusual appearance of ligature mark is due to application of ligature material in multiple rows by the deceased.

Key Words: Hanging, Ligature mark, Atypical, Strangulation, Post-mortem

Introduction:

The ligature produces a furrow or a groove in the tissue which is pale in colour, but later it becomes yellow-brown or dark brown and hard like parchment. It may be produced by the application of a ligature to the neck even after death. Certain marks on the neck produced after death may simulate ligature mark. Normally it is in single row in suicide, multiple rows are seen in homicides. [1]

Case History:

A male, aged 23 years, resident of a local area of Kakinada, was working in a small software company for a pay of Rs. 6000 a month. His elder brother is working in a big software company on salary of about Rs. 30,000 a month. The deceased got frustrated in his life by comparing with his brother's income, got addicted to alcohol, smoking and committed suicide by hanging at his residence at about 08:00 pm, on 05/11/2012. On receiving information, police broke into his room by 05:00 am on 06/11/2012.

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Autopsy was conducted over his body on 06/11/2012 at 10:00 am.

Autopsy Findings:

There were two externally visible ligature marks seen on the neck. The Upper ligature mark was of 21 cm in length with a gap of 10 cm in between right and left ends; width is 2 cm, 5 cm, below chin, 3 cm from left ear and 2cm from right ear.

It was running obliquely upwards above thyroid cartilage, with margins abraded. The second lower ligature mark was 33 cm around entire circumference of the neck, at the level of thyroid cartilage, 2 cm in width, 9 cm from right ear on right side, 9cm from centre of chin, 7cm from left ear on left side. Apart from these ligature marks no other external injuries were found. (Fig. 3, 4)

On dissection of ligature mark subcutaneous tissues, ribbon muscles of neck were contused and ecchymosed. They showed congestion in the internal tissues of lower neck region Thyroid cartilages and hyoid bones were physically intact. [1-6]

Final Opinion:

On perusal of case, P.M. Examination findings, the death is due to asphyxia as a result of ante-mortem hanging.

Discussion:

This is a case of atypical hanging which showed multiple ligature marks on the neck. It is due to application of ligature material in multiple rows by the deceased. Externally, by seeing the

ligature mark appears atypical and it appears as if it could be due to a homicide, i.e. strangulation by ligature. Pattern of the ligature material could also be well appreciated. [2-6]

On reviewing the crime scene photography, visiting the crime scene, and going into the history of the case, they revealed no foul play, except for the frustration by the deceased. (Fig. 1, 2) There was no other entry into the room in which he committed suicide except for the door which the police broke open.

There were no marks of violence on his body except for the above described ligature marks. He lost interest in his life and committed suicide by partial hanging.

Conclusion:

This case stands as an eye opener for fresh Forensic Medicine students and faculty advocating them not to conclude as a homicide for a suicide by hanging, just by looking at the ligature mark.

Never hesitate to go through the crime scene photography / visit crime scene, personal history of the deceased to suspect any foul play, whenever it is available. Before giving final opinion, we should think twice and study the facts that are present on the body. As our ancestors say, dead body speaks truth.

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Fig. 1: Distance view of Scene of Crime



Fig. 2: Closed view of scene of crime



Fig. 3: Ligature marks front view



Fig. 4: Back View of Ligature Mark

