

## Case Report

### Suicidal Hanging Masquerading as a Homicidal Hanging

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#### Abstract

It is true that hanging in its face value goes in favour of being suicide in nature and it is relatively easy for an autopsy surgeon to establish cause and manner of death at autopsy provided there is a clear ligature mark with typical features of asphyxial stigmata. However, difficulty arises when there is an allegation, an unusual ligature mark or associated with other bodily injuries. Moreover, post mortem artefacts or changes of decomposition may pose a great challenge especially at the hands of inexperienced autopsy surgeons. In the present case report, we discuss the importance of thorough and meticulous post mortem examination and crime scene visit which were ignored during the first autopsy done at a Taluk Hospital. Another important aspect of this case report is scientific documentation of persistence of ligature mark (of hanging) in an exhumed cadaver with decomposition.

**Key Words:** Hanging, Ligature mark, Suicide, Homicide, Exhumation, Post-mortem artefact

#### Introduction:

Hanging is a common method of committing suicide all over the world and the incidence is even high among young men. [1]

It is comparatively easy to establish a case of suicidal hanging at autopsy if there is presence of its characteristic oblique & interrupted ligature mark, dribbling of saliva, asphyxial stigmata and absence of other signs of physical violence. However, difficulties arise in cases of advanced decomposition, presence of atypical ligature marks or absence of ligature mark and of course in those cases where there is bleeding from natural orifices with a high suspicious surrounding history.

Sometimes, in India, it is a common practice to kill a person and then suspend the body from a tree or anything to avert suspicion and such a post mortem hanging may simulate suicidal hanging. In such instances not only careful and thorough post mortem examination of the deceased but also examination of scene of crime and other related circumstances surrounding the death, etc. would help to arrive at a proper diagnosis avoiding miscarriage of justice in the administration of law.

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#### Case Report:

It was a case of second autopsy conducted on an exhumed body of a 24 years old Hindu male who was buried about 11 days back. The first autopsy was done at a government hospital. There was an allegation of physical torture and subsequently leading to killing as the victim was wanted in a case of elopement with a girl to a neighbouring district.

After completing all formalities, exhumation was commenced at about 10.30 am in the presence of magistrate, police investigating officer and relatives of the victim.

The site was dry and the soil was light brown in colour and sandy in nature. On removal of the heap up top soil the size of the grave was found to be about 1.7m long and 65 cm broad.

On further digging about 90cm deep the body was found wrapped in a mat made of palm tree leaves and white cloth but without any dresses or coffin. The body was recovered and shifted to the G.R.H. Mortuary for the second autopsy examination.

#### Autopsy Findings:

Though the body was in a state of decomposition most of the external features were well preserved except the eyeballs which were sunken and liquefied. The total length of the body was 170 cm with an average built.

The scalp hairs and other body hairs were intact but they were loose and easily pluckable. Epidermis was peeled off irregularly and slippery with degloving and destocking of skin over both hands and feet respectively. However, dermis was intact all over the body.

Incisions of previous autopsy were seen in the head and neck-chest-abdomen region.

A faint oblique ligature mark of about 2.5 cm broad and 19 cm long was noted around the neck below the chin and above the thyroid cartilage. We examined the ligature mark after cleaning the loosely attached epidermis and beard. (Fig. 1)

This ligature mark was placed 8 cm below the right mastoid prominence and it ran obliquely upwards just behind the left mastoid.

The ligature mark was very faint on the back side of the neck and it was absent just behind and above the left mastoid prominence (knot mark area).

The underlying subcutaneous tissue was found to be relatively hard and decomposing without any bruising. Soft tissues of the neck along with the hyoid bone, thyroid cartilage and carotid vessels were missing (due to first autopsy). Other autopsy findings were non-informative.

It was followed by crime scene visit. The incident took place inside a small tiled roof house which is situated at the outskirts of a village. Even after the 12<sup>th</sup> day of the incident, we were able to elicit the dust disturbance on the beam and on further examination we spotted adherence of few green fibers which later on found to be matched with the used ligature material retrieved by the police.

In addition to all these, we examined 13 photographs taken at the scene of crime before the body was brought down by the police. (Fig. 2) One of the photographs showed presence of trickling of saliva (dry stain) from the right angle of the mouth to the corresponding front aspect of the chest. In another photograph we observed dripping of fluid blood from the anus down to the lower portion of the inner aspect of the left knee.

From some of the photographs we also come to know that there were emission of seminal fluid and urination.

### **Discussion:**

In the present case the relatives of the victim alleged homicidal hanging because of the bleeding from the nose and anus when they saw the dead body on the next day just before the first autopsy. Their suspicion grew even more because of the prevailing circumstance. So, they filed a police case and accordingly a magisterial inquest was done leading to the exhumation and the second post-mortem examination.

In hanging there may be frank bleeding from the nose, and more so from the ears due to massive venous congestion of the mucous membranes of the nose or eardrum. [2]

This may be even more prominent with the onset of decomposition. Sometimes, bleeding from the mouth can also be due to injuries to the mucous membranes of the tongue or lips due to convulsions, with corresponding biting injuries, the convulsions resulting from cerebral hypoxia. [2] In the present case bleeding from the nose seems to be an artefact due to venous congestion and changes of decomposition as there was no evidence of bleeding when the body was in hanged position (as per available crime scene photographs).

Available literature mentions frequent observation of discharge of faeces, urine and semen in hanging cases. [2] However, we do not come across any literature mentioning bleeding per anus in hanging cases though it is quite possible that post mortem slow trickling of blood from engorged veins of the muco-cutaneous junction of anus as the body remained suspended for a long time.

Another possibility is the presence of anal fissures or ant bites which facilitate passive bleeding due to rupture of highly engorged veins due to prolonged body suspension though we could not rule out due to changes of decomposition. We were sure that it could not be due to an injury because we examined the surrounding area by giving multiple incisions during our second autopsy. (Fig 3)

Moreover, there was no soiling of blood on the worn lungi which was intact and the pattern of bleeding was very self-explanatory as it formed a single trail along the line of gravitational pull (as noted from one of the crime scene photographs).

So, after looking into all these findings and based on their scientific explanation we concluded that it was a case of suicidal hanging. The second aspect of this case report is the persistent ligature mark in an exhumed body.

The ligature mark of hanging resist putrefaction due to the displacement of blood from the area which retards the access and activities of the bacteria [3, 4] and it has been seen in bodies exhumed 6 days after death. [3]

However, this range of persistence of ligature mark in such exhumation cases may vary widely from 3 to 20 days as reported by Rajesh Bardale et al [5] and up to 2 months by Grellner W and Glenewinkel F [6] respectively.

This longer duration of persistence of ligature mark in the western scenario may be due to better body preservation because of use of coffin and deep burial which delay the rate of putrefaction.

**Conclusion:**

From the police and the relatives we came to know that the victim was hiding with his fiancé in a secluded house located at the outskirts of a remote village. After dropping her near to a local police station he returned and committed suicide as there was no hope of escape and fear of impending police arrest. This theory of suicidal hanging is also quite consistent with the pattern of the ligature mark, crime scene findings and the corroborative evidence derived from the photographs taken before the body was removed and in addition to all these, the point of suspension was also easily approachable by the suicide.

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**Fig. 1: Persistent Ligature Mark after Cleaning Epidermis**



**Fig. 2: Ligature as seen in one of the Photographs taken by Police**



**Fig. 3: Multiple Incisions to Rule out Physical Violence**

