

## Case Report

### Masking of Manual Strangulation:- A Case Report

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#### ABSTRACT

This is a case considered to be a suicide by the police as it was depicted to be a case of partial hanging. During autopsy examination multiple injury marks were observed on the neck and fracture of hyoid bone. As the above mentioned findings are usually not seen in case of suicidal hanging, these unusual post-mortem findings lead the investigation from different medico legal angles by forensic expert. An attempt has been made in this case to correlate the presence of injuries on the dead body in relation to partial hanging.

**Keywords:** Manual strangulation, Neck injuries, Fracture of hyoid bone, Contusion of neck muscles, Post-mortem hanging

#### INTRODUCTION

In medico-legal cases, asphyxia is one of the commonest modes of death. Due to lack of protective bony structure and its close approximation with other vital vessels and airways neck is most vulnerable part of human body<sup>[1,2]</sup>. Hence, it is most often targeted in homicides and suicides. Asphyxial deaths vary from hanging, drowning, ligature strangulation, throttling, smothering, suffocation and

traumatic asphyxia. It is very much important to make the difference between various asphyxial deaths, especially between hanging and strangulation<sup>[3]</sup>. Below mentioned case depicts a rare conflict between the report of forensic experts and police inquest report. This case seemed to be a suicidal hanging but had contradictory autopsy findings. Hence, enormous skills and expertise on the part of forensic surgeon was needed to arrive at correct diagnosis.

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## CASE HISTORY

On 10 July 2017 at 10.15 P.M., a dead body of 40-year-old female was brought to mortuary of Government Medical College, Haldwani. According to the history given by police, the body was found lying on the bed in supine position in victims' house, where she was living with her boyfriend. Police also gave history of sky blue colour duppata (along piece of cloth worn around the head and neck) encircling her neck with other end of the duppata tied to the window (Figure 1).

## POST-MORTEM FINDINGS

On examination, it was thin built body of a female. Rigor mortis was present on large joints of upper and lower limb. Post-mortem staining present over the back and fixed, except part of contact flattening. No ligature mark noted around the neck. Lips and nails were showing bluish discoloration.

The noted injuries were

1. Contusion surrounded by multiple scratch abrasion, measuring 2 cm × 2 cm present 2 cm below the thyroid prominence in front of neck, reddish in colour (Figure 2).
2. Contusion surrounded by multiple scratch abrasion, measuring 2 cm × 1 cm present 2 cm below to thyroid prominence and 1 cm lateral from midline on the right side of neck, reddish in colour
3. Multiple reddish colour scratch abrasion present left side of upper part of neck, upper margin 3 cm below



Figure 1: Picture Taken by Police at Crime Scene

angle of mandible and lower margin 6 cm below the angle of mandible, measuring 3 cm × 2 cm.

4. On bloodless dissection of neck, the underlying tissues of the injury no 1 and 2, showing contused area. Superficial incision were given to injury no 1 and 2 showing extravasations of blood (Figure 3).
5. Flap dissection of neck showing fracture of right side superior cornu of hyoid bone (Figure 4).



Figure 2: Contusion along with Abrasion



Figure 3: Contusion Visible on Flap Dissection of Neck



**Figure 4: Fracture of Hyoid Bone**

The cause of death was opined as ‘Asphyxia as a result of ante-mortem constriction of neck by hand, sufficient to cause of death in ordinary course of nature’ and the probable time between the injuries and death was within a few minutes

## DISCUSSION

Manual strangulation and hanging is differentiated by injuries of superficial subcutaneous neck tissues like bruises and abrasions. Bruises produced in neck during throttling are caused by fingertip of assailant<sup>[1,3,4]</sup>. While the abrasion produced in neck during throttling can be caused by fingers of assailant or victim. It has been noted that fingertip bruises and fingernail abrasions are hallmark of manual strangulation<sup>[3,5,6]</sup>. In this case, manual strangulation was suspected due to absence of ligature marks, presence of fingertip bruises and fingernail abrasions<sup>[6]</sup>. Spitz WU and Spitz DJ quoted in his book of ‘Spitz & Fisher’s Medico-legal Investigation of Death, Guidelines for the application of Pathology to Crime investigation’ fracture of laryngeal cartilages is significant finding in a case of manual strangulation<sup>[5]</sup>. In our case, fracture of right superior cornu of hyoid bone was noted, which indicates throttling<sup>[4]</sup>. Depend upon its face value,

case of hanging always goes for suicidal manner that’s why assailant always tries to simulate the findings of hanging after manual or ligature strangulation<sup>[3]</sup>.

## CONCLUSION

In cases of death due to violent asphyxia, whether suicidal or throttling or ligature strangulation, rely upon the police inquest paper sometimes leads to wrong direction<sup>[3]</sup>. To differentiate the manner of death, careful and meticulous examination of neck structure carries a great importance<sup>[3]</sup>. Females are always more prone to victims of strangulation because they can provide very less resistant during an assault<sup>[6]</sup>. Under such situation, the role of autopsy surgeon can play a great role to provide the justice to the family of victims.

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