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Case Report

Burn: A Tool for Concealing Homicide by Strangulation

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Homicide,
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Abstract

Homicide is a killing of one person by another. It may be caused by mingle of factors at the individual, relationship, and community. Societies with pronounced gender inequality tend to be characterized by higher levels of interpersonal violence against women, including homicide which is increasing at an alarming rate in India. Homicide in the form of strangulation (manual and ligature) with 'hands-on' kill feeling occurs where the sexual fantasy acts paired with domination, degradation, and violence resulting in death. Attempts to conceal homicide to the accidental ones are not rare, which neither the science, and nor the law has been completely successful in unearthing most of these incidents. Burns are frequently used by perpetrators to hide homicide. We present one such case where the female deceased was strangled and burnt. Later an attempt was made to conceal the homicide. Medico-legal autopsy revealed homicide and the arrestee was taken into custody.

1. Introduction

In the age group of 15 to 29 years, homicide held the top position in the causes of death in some countries, and leads to death in millions annually. About 464,000 people globally loss their precious life as a result of homicide as per the article released by U.N Office on Drugs and Crime (UNODC).¹

The largest number (20,000) of all women killed worldwide by intimate partners or other family members in 2017 was in Asia.² Women are at a lower risk compared to male population for homicide, but their age profile especially adolescent groups are at risk in women category. In India, female continue to bear the heaviest burden of lethal victimization of homicide as a result of inequality and gender

stereotypes. Homicides involving female tend to be determined by long-term, less volatile and more stable issues such as gender roles, social norms, and status of women in society, discrimination and gender equality.

Ligature strangulation is one of the common methods used in homicidal practice.³ In cases of female homicide, the perpetrator may attempt to delay or avoid discovery of the body by disposing it in hidden or remote places. At the same time steps may be taken by offender to prevent the identity of the victim and destroy forensic evidence. The perpetrator may also try to minimize his contact with the victim's body.

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Death associated with burns or bodies recovered from burned down places are always a challenge to the police officer as well as autopsy personal. In this rare case, thermal burns were used to dispose the body. The deceased was strangled first, and then burnt at a lonely place for concealment of crime. Meticulous autopsy and relevant investigations by the team of autopsy surgeons helped the police in solving the case and punishing the perpetrator under the law of land.

2. Case History

An unknown female's body of approximate age between 20 to 25 years was found in burned condition around outer zone of an urban area as local people informed police about the incidence of burning victim's body by the offender. Accidental death report was made by police of the area and body was sent for postmortem examination. During the postmortem external and internal examination was done for identification and to rule out injuries other than burns. A horizontal ligature mark as spared area over anterior aspect of neck was noted. On internal examination hanging was ruled out. Cause of death given was strangulation with burns. Viscera were preserved for chemical analysis and skin tissue was preserved for histopathological examination to differentiate between antemortem and postmortem burns. Samples were preserved for chemical analysis.

Observation

a. External findings-

Burnt clothes were seen over the body at places. Body was unidentified because of burns. Teeth were intact. Body was moderately nourished and cold. Heat stiffness was not able to break. No signs of decomposition were present. Lividity was present at unburned back region and fixed. Face was burnt, eyes were closed and tongue was protruded with mouth open. Superficial to deep burn seen at places with reddish-yellowish pale floor and at places were present (Fig. no. 1). Blood was oozing from nostrils. External genitalia were burnt. Pugilistic attitude was present.

Deep burns were present on head, face, and neck with some part of neck spared (8% of burnt surface). Chest (9%), abdomen (9%), back (12%), both the upper limbs (9 % each), both the lower limbs up to knee joint(12 % each) and perineum (1%) were burnt. Total burnt surface area was 81 %.

Total neck circumference was 28 cm. Over neck a horizontal spared, grooved band with reddish strips in between, of size 18x 2.5 cm was present over anterior aspect above the level of thyroid cartilage (Fig. No. 2). The spared band was 8 cm anterior to left mastoid, 8.5 cm anterior to right mastoid, 8 cm below the level of chin and 6 cm above the suprasternal notch. Deficient superficial groove present over both legs above the level of ankle of size 12 x 1 cm, pale in color. Singing of hair was present over the body.

Figure 1: Showing reddish yellow discoloration of burnt area over face



Figure 2. Showing horizontal ligature mark over neck



b. Internal findings-

Diffuse contusion over strap muscle of neck corresponding to ligature mark. Sub capsular & interstitial thyroid hemorrhages were present. Hemorrhagic infiltration over pharynx, epiglottis, larynx and lymphoid follicle at the base of tongue were present. Palatine tonsils were congested. Singing all body hairs was present. Deficient superficial groove present over both legs at the level of ankle of size 12x01 cm pale yellowish in colour which was postmortem injury.

No evidence of skull fracture. Meninges and brain were intact. On cut section, petechial hemorrhagic spots in white matter of brain were

present. Thoracic cavity was intact. Petechial hemorrhagic spots present over the surface of both the lungs, on cut section congested. Multiple echymotic lesions present over surface of heart. Blood was in fluid form, dark reddish in colour. All other organs were congested. Organs of generations were unremarkable.

c. Investigations

Bone for DNA analysis, hairs, skin and burnt cloth for detection of accelerant, swabs for seminal analysis and blood clot for grouping were preserved. Routine viscera were sent for chemical analysis. Identification was confirmed by DNA analysis. Petroleum was detected in hair, skin and burnt cloth on chemical analysis. Chemical analysis report of viscera was negative. On histopathological examination epidermis and dermis were completely charred suggestive of postmortem burns.

3. Discussion

Homicide is one of the most serious consequences of interpersonal violence in every part of the world. The incidence of homicide has been increasing at an alarming rate in India too.⁴ The reasons are rapid increasing population with decreasing morale and frustration in day-to-day life in our society. Circumstantial evidences and evidences at the scene of crime play a major role in drawing conclusion about homicidal deaths. However, a body is concealed, the disposal site and means are many and various.

Bodies are usually dumped in secluded places like jungle, canals or outskirts of city, or may be dismembered and kept in small boxes, briefcases and are disposed or buried in the ground. Cases have been reported where the corpse will be dissolved in containers filled with acid, and the remains will be dumped or transferred in small convenient transport mediums. Some may be submerged in large water bodies with weight being attached to the body, which are often disfigured due to sea living organism's attacks; hence identification is quite a challenge as well as to study the injury patterns and thus deciding the manner of death. Some will try to dispose of the body by dry heat (e.g. fire), electrocution, mutilation etc. Arson is one of the most commonly practiced way of concealing the crimes especially following gagging, ligature or manual strangulation and head injury by assault.⁵ Burning wipes out majority of the essential

crime evidence and hence by of weakening its strength in the trials.

Majority of (70%) fire-related deaths are determined to be accidental occurring in the home environment and 10% are reported to result from deliberately started fires.⁶ In the present case, identity of victim was established through police investigation as face of deceased was not completely burnt. Through investigating officers, we came to know the details crime. The offender was in extramarital affair with the victim that is the deceased female. She was requesting the offender for marriage and he was denying of it. They were had repeated quarrels. When they meet last time, in the heat of argument, offender strangled the survivor with rope. The body was taken to a lonely place for annihilation by burning to conceal the crime.

During the postmortem examination we also got ligature mark over neck which was suggestive of ante mortem ligature strangulation. Ligature marks were also observed over both the legs above the level of ankle. In our opinion these marks were produced due to tying of legs for easy transport of deceased's body which was confronted by offender later on. Circumstantial evidences suggested of homicidal act followed by burns. On autopsy antemortem ligature mark over neck and postmortem ligature marks over lower limbs were observed. Histopathological report was suggestive of postmortem burns as no evidence of any congestion, cell infiltration and hemorrhage was observed. Charring was seen at few locations on external examination. Petroleum was detected on chemical analysis of hair, skin and burnt cloth. Poisoning was ruled out as chemical analysis report was negative for viscera. So opinion regarding final cause of death was given as "ligature strangulation".

4. Conclusion

The present case is an unfamiliar case of homicide, where the antemortem ligature strangulation marks over neck along with postmortem ligature marks over legs for transport of body were seen. This was followed by postmortem burn for concealment of crime. Circumstances of the case, the crime scene, a clear motive and most importantly the presence of post-mortem thermal burns on the body helped us to conclude that the case was one of homicidal ligature

strangulation with postmortem burn. This case points towards changing trend of homicides. In such cases, from identification till knowing the cause, manner of death and collecting vital evidence, necessitate meticulous approach.

Conflict of Interest: None.

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