

BITE MARK EVIDENCE TO PROVE ACTUS REUS: A CASE REPORT

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ABSTRACT

Establishing *Men Rea* and *Actus Reus* are important ingredients to prove the crime. Medical & dental evidence becomes crucial in absence of other forensic evidence. A case of 30 year old, male who was killed and burnt, to conceal homicide, is being presented. During the scuffle before death, he had bitten the attacker. Bite mark on the skin of the perpetrator was matched with dentition of the victim. It was found to be a corroborating evidence for conviction of the accused. Details of case are discussed along with review of the related literature.

Key Words: bite mark; dental evidence; homicide; postmortem burns

INTRODUCTION

Attempt to Conceal a homicide is common, but its actual concealment is rare, as the evidence, if properly collected and analysed, gives the crime away. The perpetrator usually intends to conceal the victim's identity and cause of death. Destroying the other forensic evidence can also be attempted at. Establishing Men Rea and Actus Reus are important ingredients to

prove the crime. Identity of victim & accused and their direct connection with the crime has to be established. We report a case of concealed homicide, wherein Medical and Dental evidence was vital in establishing identity, cause of death and also in linking the crime with the accused person.

CASE DETAILS

Body of an unknown, 30 years old man was brought for post-mortem examination with history being found dead in a jungle area. Police detailed the death scene as an area of 30 kms from the city limits and 1.5 km from the approach way. Grass and vegetation surrounding the body remains were found burnt. Autopsy was conducted at the earliest so as to aid in identification. At autopsy, the body measured 172cms in length. Whole of the body sustained postmortem burns, at places. Soft tissues were missing at places with presence of animal gnaw marks. Lividity was not appreciated due to burns. Rigor-mortis was not appreciated due to heat rigidity. Putrefaction was evident by infestation of maggots. A transversely placed Stab injury was present over right side of neck, 8 cm from midline of nape of neck and 4 cm below right ear, underlying vessels were transected. Vertically placed Stab injury, was present over left side of back, 4 cm from midline of back and 9 cm from top of left shoulder, pleura was breached, however there was no injury to lungs. (Fig 1a,b) Visceral organs showed putrefactive changes. Parts of abdominal organs were missing due to gnawing. Stomach was empty. Pieces of available organs were preserved for chemical analysis. Cause of death was opined as Hemorrhage and shock due to multiple stab injuries. Stab

injuries were antemortem in nature and sufficient to cause death in ordinary course of nature. Toxicological analysis of viscera did not reveal any poison. Long bones were kept for DNA analysis. Body was kept in mortuary for 5 days for identification.

Figure 1a: Stab injury over neck



Figure 1b: Stab injury over back



Further Police investigations revealed the identity of the victim. Suspected accused was zeroed in and was got examined by the police. He presented with a suspected bite mark injury over forearm, inflicted due to scuffle with deceased victim. Bite mark was examined and compared with dentition of the victim. Odontology examination confirmed it as a human bite mark teeth like the suspect could be

expected to create a mark like the one examined.

Figure 2a: Casting of dental impressions



Figure 2b: Occlusal view of dental casts



DISCUSSION

In present case, dental evidence was used to substantiate the crime in a burnt body. Burnt bodies pose challenge as the burns can be postmortem in nature and may conceal a crime.^{1,2} The diagnosis of a concealment of homicide by burns requires the presence of fatal injuries inflicted by another person and the absence of the classical signs of vitality of burns. Hemorrhage and shock due to multiple stabs was cause of death in present case; while firearms, strangulation,³ or stab injuries were found to be causes of death in other studies.^{1,2}

Teeth are the best tools for identification in burnt corpses as they are well preserved even in highly burnt state.⁴ Odontologic evidence was overwhelmingly used for identification in 75 %, ² 61 % ⁵ and, 57 %⁶ of burnt bodies. However, in present case, identity of the deceased was got confirmed by the police. Dental evidence is also important to establish connection between perpetrator and the victim or vice versa. In present case, it was a vital task to match the bite mark on accused with that of dental impressions of victim. Standard impressions were taken, cast, paired up and articulated in the usual way. (Fig 2a,b) Dental impressions from victim were matched to such a degree of certainty that it was opined as probable bite mark of victim.

Locard's principle of physical exchange was used effectively in physical evidence of bite mark. It was also successfully used to rule out sadistic manner of infliction of bite mark over breast.⁷ Analysis of bite mark sustained by the victim in establishing an evidentiary link between the victim and the suspect is well documented.^{8,9} In a study of 259 bite mark cases, conviction was 50 % in cases where perpetrator inflicted bite mark over victim (n=240, 92 %). However, conviction was much more (79 %) when victim attacked perpetrator by bite mark (n=19, 8 %).⁹ Present case is in concordance with above study as in this

case bite mark was inflicted by victim on attacker and it was vital forensic evidence which led to conviction. Positive dental evidence substantiated the evidence against alleged accused. Dental evidence was crucial in directly linking accused with the crime.

CONCLUSION

Elaborate details must be obtained in a homicide case. Dental evidence in form of bite mark may be transferred from victim to accused during scuffle. Such evidence is vital to corroborate the crime in absence of other forensic evidence and witnesses. Scientific documentation of dental impressions and matching with bite mark is important to prove *actus reus*.

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