



## Case Study

# Reconstruction of crime scene, a forensic technique used in substantiating alleged homicide into accidental death: a case study

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Received 18<sup>th</sup> September 2017, revised 11<sup>th</sup> November 2017, accepted 26<sup>th</sup> November 2017

## Abstract

*Scene of crime reconstruction is a forensic technique which involves scientific analysis of crime scene on the basis of physical evidence, their location/pattern, their interrelationship, and their laboratory examination and thus to arrive at a conclusion about a specific crime i.e. what exactly happened at a certain crime scene. Here in this paper we will discuss a case of accident that was turned into murder (i.e. Under Section 302 of Indian Penal Court) because the family members of the deceased alleged that the deceased was murdered and then dragged by tying to a vehicle to dispose off the body and to destroy the evidences. In this paper we discuss how this sensational case was solved by the scientists of Forensic Science Laboratory, Haryana through the reconstruction of scene of crime by analyzing the appearance of scene of crime, physical evidences according to their respective locations and positions at scene and the injuries to the deceased. This process involved scientific knowledge of crime scene investigation for proper elucidation of physical clues detected at the crime scene, their examination in the laboratory, complete and clear knowledge of information related to the case, and hence devising of a reasonable hypothesis.*

**Keywords:** Crime Scene, Reconstruction, Homicide, Physical Evidence, Injury.

## Introduction

On receipt of message from police, team of Forensic Science Laboratory of Haryana comprising of Dr M.K. Goyal Deputy Director, Biology and Dr Ajay Sr. Scientific Officer, Scene of Crime along with the investigating officer, concerned police officials and villagers visited scene of crime. The Investigating Officer of the case informed that dead body of a 35 years old person from a village of his area was found lying on a metaled/concrete road opposite a dairy in a nearby village. The IO of the case further narrated that the deceased consumed liquor in the late evening in the company of two of his friends at a spot near a hand pump on the bank of a 'canal' near mentioned road.

It was also stated that the deceased was working as a servant to a landlord of the same village. There was one 'pucca' room (Kotha) by the side of metaled road. The deceased used to stay/take rest while waiting for his turn to irrigate fields of his landlord. On that fateful night his turn was from 1 am to 4 am during the intervening night of 31-07-10 and 1-08-10. The team was further informed by the police that there was a liquor shop at distance approx. 2 kms on the same road. It was further stated by the police that brothers of the deceased alleged in the FIR that the deceased was murdered and then dragged by tying his body to a vehicle and dumped at the place opposite to the dairy on the road.

Whenever, there is any suspicious death it is the job of the investigating officer as well as the forensic specialist to find out the nature of death (suicidal, homicidal or accidental) by establishing the sequence of events through successful reconstruction of the crime scene. Proper interpretation on the basis of analysis of physical evidences as well as testimonial evidences is the base of successful reconstruction of a scene of crime. Therefore, during investigation of a doubtful death case the greatest efforts are required especially on the part of the forensic scientist<sup>1-3</sup>.

## Materials and methods

The Crime scene was reconstructed on the bases of forensic scientists' scientific knowledge, experience and logical interpretation governed by basic scientific principles. During the reconstruction we comprehensively focused on final resolutions<sup>4</sup>. During this logics, careful observations, and considerable experience, both in crime scene investigation and forensic testing played a critical role. Every information e.g. condition of physical evidences, crime scene pattern, condition/injuries of the victim, etc., was reviewed, organized, and studied. Deductive and inductive reasoning used to formulate the logical theory i.e. to understand the series of events that surround the occurrence of the incident<sup>4,7,8</sup>.

Observations recorded from the Figures: i. Abraded area on the right side part of the skull exposing the underling bone. No

damage on the earlobe, cheek, mandible, lips and neck was observed (Figure-1). ii. No noticeable damage on the face, front of neck, forehead, nose, upper part of the chest could be observed (Figure-2). iii. No noticeable damage on the right hand including phalanges, palmer area. Little damage present on the palm towards wrist. No noticeable damage on the left side of head, earlobe, eye, cheek, nose and shoulder etc. Superficial injuries are seen on the upper area of left arm (Figure -3). iv. Left hand phalanges, palmer area and wrist escaped injuries (Figure-4). v. Injuries/road side injuries on the back and on the right hip region. There is darkish demarcated stained area on the lower area of right leg. No damage seen on the left leg region (Figure -5). vi. Abraded damage with tags of flesh on the inner area of heel and phalanges of the left foot. Damage was observed on the fifth toe of the right foot. vii. Superficial damage/abrasion on the outer area of right forearm towards elbow (Figure-6).



**Figure-1:** Abraded area on the right side part of the skull.



**Figure-2:** No noticeable damage on the face.



**Figure-3:** No noticeable damage on the right.



**Figure-4:** Left hand phalanges, palmer area and wrist escaped injuries.



**Figure-5:** Injuries on the back and on the right hip region.



**Figure-6:** Superficial damage on the outer area of right forearm towards elbow.

Observations recorded from the post mortem report: i. Eighteen injuries have been recorded in the PMR out of which sixteen are ante mortem. ii. The post mortem injuries are only left side of right knee and on the front of the right upper arm. iii. The ante mortem injuries are mostly on the right side and back of the body and are grazed abrasions. No significant damage recorded on the legs. iv. Injury no 14 comprises reddish contusion of size 7x2 cms on the right lower leg on the posterior medial region. v. Injury no 15 comprises an abrasion on the right foot of 5<sup>th</sup> finger toe on the lateral part size 3x1 cms reddish and blackish colour. vi. Injury no 5 comprises of a lacerated wound of size 4x3 cms on the planter side (sole) of left foot on the heel region reddish black graze marks in the diameter of 6 cms. Lacerated wound of size 3x2 cms on the planter side of left first (great) toe of foot with reddish black graze abrasions in the diameter of 3cms.

Observations recorded from the clothes of the deceased: Clothes of deceased were examined in the custody of the police and following observations were made: i. Trousers/lower of the deceased had graze marks with blood and a hole and tags of torn out cloth on the right back hip region (Figure-7 and 8). ii. Oily blackish stains/smears were present on the lower margin of the right leg of the trousers. No tearing or graze marks were observed on any other part of the trousers except the hip region (Figure- 9 and 10). iii. The shirt was torn with tags of cloth stained with blood on its back. The front of the shirt was totally devoid of any damage/graze mark. Buttons of the shirt were intact and normal. Collar on the back right side area was torn and stained with blood (Figure- 9 and 10).



Figure-7: Trousers of the deceased had graze marks with blood.



Figure-8: Hole and tags of torn out cloth on the right back hip region.



Figure-9: Collar on the back right side area was torn and stained with blood.



Figure-10: Buttons of the shirt were intact and normal.

Observations made at the scene of crime: i. The alleged place/ kotha were located along the road leading from village Nand Garh to Gohana via village Bhavad (Figure-11). ii. No marks of any vehicle or any drag marks except an alleged darkish stain of blood could be observed on the road in front of the 'kotha'. The alleged stain of blood was tested and was found to be negative for blood (Figure-11). iii. After a distance of about 500 meters a hand pump was observed on the bank of 'rajwaha' on the right side of the road towards Bhavad (Figure -12). iv. After a distance 1100 meters drag marks leading towards village Bhavad were observed on the road and were found positive for blood (Figure-13). v. A liquor shop was found approx 3000 meters from the 'kotha' towards Bhavad. A speed breaker and a dug out channel by removing the concrete tiles across the road were observed just before the place from where dead body was recovered (Figure -14). vi. A large size darkish stain of blood was observed on the spot in front of the dairy.



Figure-11: The alleged place.



**Figure-12:** After a distance of about 500 meters a hand pump was observed.



**Figure-13:** After a distance 1100 meters drag marks leading towards village Bhavad.



**Figure-14:** A liquor shop was found approx 3000 meters from the 'kotha' towards Bhavad.

## Results and discussion

From the damages caused on the body as seen in the figures following inferences are drawn: i. The deceased received injuries on its body mainly on the right side part i.e. back of skull, back of body, hip, and left foot. ii. Right foot and both the

legs had insignificant damages/injuries indicated thereby that the body was elevated from the leg side and was touching the road from head side with its back. iii. The damages on the left foot and right foot are not similar i.e. the left foot was in contact with the road while the right foot was not. iv. Absence of injuries on the face, chest, hands and insignificant injuries on the arms indicate that the deceased was having some control over the body while being dragged on the road.

From the injuries recorded in the PMR it is inferred that: i. The deceased received injuries while being dragged from the leg side with his back side of head, back, right hip and left foot touching the road. ii. The lower part of the right leg on the posterior medial region was touching some smooth and hard surface. iii. From the observations recorded from the cloths of deceased, it is referred that: iv. That the deceased received injuries/damages while being dragged on its back. v. The right leg appeared to have been in contact with some object having oily blackish surface.

On the basis of observations made at the scene of crime and recorded from the PMR and the figures, it is inferred as under: i. The deceased was alive at the time of receiving injuries while being dragged. ii. The body of the deceased was dragged from leg side with his head side dragged against the road. iii. The left leg of the deceased was in contact of the road and the right leg was away from the road while the body was being dragged. iv. The lower part of right leg and right foot were in contact with some hard object having smooth and oily blackish surface.

Therefore, on the basis of the inferences drawn above it is opined that the deceased was dragged by a moving vehicle from leg side to head side while alive and was having some control on his body.

## Conclusion

Hence, on the basis of observation recorded, inferences drawn opinion made and narrations made by the police and the inmates of the deceased it appears as if the deceased under intoxication could have requested a vehicle to stop to fetch something and could have tried to board the same from back side taking his first step using his right foot which accidentally could have slipped inside some gap and got entangled and lost control over the body and was dragged accidentally by the driver of the vehicle. After covering a distance of three kms on the clear metalled road vehicle could have received a jerk while crossing the speed breaker and the dug out part of the road and the body could have been released on the road/spot from where it was recovered.

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