

Name(s) _____ Date: _____

Blood Case Study: Theft and Murder Unraveled by Forensic Investigation

Introduction

Blood is the most common, and perhaps most important, form of evidence in criminal justice today. Its presence links a suspect and victim to one another and to the crime scene. Bloodstain patterns tell a lot about position and movement during the crime, who struck whom first, in what manner, and how many times. In forensic cases, blood is usually considered class evidence, but the potential exists for individualized blood typing, and forensic serologists can provide testimony with some strong probability estimates linking a single individual, and that individual only, to a bloodstain. Consider that identical twins may have the same DNA profile but completely different antibody profiles and you begin to see how promising the field of forensic serology really is.

The Case

The physical examination of blood at the crime scene in the present case revealed the entire story of the crime in addition to proving the inaccuracy of the story of theft and consequent murder of a woman reported by her in-laws. The mother in-law of the deceased told the investigators that her daughter in-law died during a struggle with intruders who entered the house with the intention of robbing them. She said that she and her husband were bolted in the adjacent room during the incident. The laboratory study of blood on various articles provided evidence against the in laws of the deceased who were the real murderers.

Scene of the Crime Observations

- a) *Victim's Body*: The victim's dead body was lying on the floor of her room. Her head was smashed by a blunt weapon. Few scratch marks were present on the neck of the deceased.
- b) *Blood*: Blood was also present in various places in the room. A small amount of blood was detected in the bathroom and in the soil beneath the outlet of the bathroom. A blood smeared stone and a bloody knife were also discovered.
- c) *Blood Spatter*: The result of the blood stain pattern study at the scene revealed struggle by the deceased. There was also evidence of movement in the blood stains from the room where the dead body was recovered to the room where the mother in law of the deceased was allegedly kept by the intruders.

Physical examination of the blood stains was performed to reconstruct the scene of crime. The crime scene was also documented photographically. All the questionable blood stains were chemically tested for the presence of blood. There were unopened containers of valuables which were not taken by the intruders. A thorough examination of both the in laws was conducted at the Police Station. Blood was detected on the father in-law's shirt and on the mother in-law's sari. The father in-law's blood stained pants were later recovered by the Investigating Officer.

All samples were subjected to blood tests for detection and determination of origin (Table 1). They were also subjected to semen detection tests. Human blood was detected in all the exhibits and 'A' blood group was detected in the in law's exhibits.

TABLE 1

Exhibit No.	Exhibit	Blood Detection	Origin of Blood	Blood group
1	Blood stained gauze from crime scene	Positive	Human	A
2	Tripal from crime scene	Positive	Human	A
3	Shawl from crime scene	Positive	Human	A
4	Broken bangles from crime scene	Positive	Human	Inconclusive
5	Stone from crime scene	Positive	Human	A
6	Blood stained gauze pieces lifted from crime scene	Positive	Human	Inconclusive
7	Saria (weapon) recovered from the suspects	Positive	Human	A
8	Blood smeared soil recovered from crime scene	Positive	Human	Inconclusive
9	Pant of 'Bhanwar Lal' (Suspect)	Positive	Human	A
10	Shirt of 'Bhanwar Lal' (Suspect)	Positive	Human	Inconclusive
11	Knife (weapon) recovered from the suspects	Positive	Human	A

Results and Discussion

At the crime scene of a murder case, forensic scientists have to determine the nature of death (i.e. whether the death is natural or unnatural, and if the death is unnatural, whether it is homicidal, suicidal, or accidental). Another important role of forensic scientists is to verify the witnesses' statements, if available. Extra care has to be taken during investigation to rule out any manipulation. The physical evidence collected at the crime scene is used to answer one other important question: how the criminal can be linked with the crime. The investigation determined the statement of the in-laws was false and concluded that involvement of the in laws in the murder was not ruled-out.

QUESTIONS

1. What types of information about a crime does blood reveal?
2. What does the presence of blood in the room where the in-laws were allegedly locked by the intruder, indicate?
3. How does the blood on the in laws clothing prove their guilt? Explain.
4. Write a conclusion paragraph for this case. Your paragraph should implicate the in laws in the woman's murder and provide supporting forensic evidence from both the text and the data table.