

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Brief Analysis on Victim's Hint: A Forensic Study.

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ABSTRACT

The victim's body is source of all the required information which can lead to the criminal, only if we know how to interpret the signs. By external observation of the body and conducting autopsy we can find out the cause of the death, it could be poisoning, bullet, fatal injury or drowning which helps us in building the crime scenes. Although autopsy is a very reliable source for finding the cause of demise yet it's followed by many problems and resistance by many religions where tampering with the body is not allowed. It's also difficult if the body is of a young child. Virtuscopy is the new method to combat such problems, it's much more efficient and there is no damage to the body in the process. This review article will also give the overview of the different types of techniques used in determining the cause of death and I have also its scenario in India with respect to other countries

Keywords – autopsy, victim, virtuscopy, crime scenes

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INTRODUCTION

Criminal courts. As the science has evolved the years, the reliance on forensic studies has increased As Locard's principle states "every criminal leaves a trace", that's why it's very important to protect the crime scene and study it carefully. Scrupulous investigation, careful observance of law and scientific Forensics is a field of science for investigating the crime and providing evidences in the civil/evidences leaves the criminal no probability for getaway.

Finding the cause of death is very first step towards finding the perpetrator. By observing the wounds on the body we can predict the criminal is whether right or left handed .There are certain cautions which needs to followed while examining the body which are discussed in this paper. Due to rapid modernization and exponential technological advances there are many cleaner and accurate methods such as virtopsy. It is been introduced yet it's still not practiced that commonly , in this paper we have discussed its various application, and more recent methods which can be used to analyze the body. Along with virtopsy and other recent discovery , we have also studied given a brief overview about ballistics and how we can use all these knowledge to find out clues about the last moments of the victim's life before he/she died , which can be hugely beneficial in criminal investigation.

Even if the forensic investigator has several tools to conduct the investigation, there are several problems which are faced such as tampering with the evidence as happened in the double murder case in Noida city, which left CBI (central bureau of investigation) in bind . There have been many cases, where the tampering of the evidences has led to unsolved cases or delayed justice to the victim and its family. In this paper, we have discussed, these tampering, which the investigators needs to keep in their mind while scrutinizing the crime scene. We have also included an overview of forensic science in India and the world

External examination

The investigator needs to keep in mind the golden rule of ADAPT while entering the crime scene for the first time.

- A – Asses the crime scene
- D- detain the witnesses
- A- Arrest the perpetrator
- P- Protect the crime scene
- T- Take notes

Also time is being noted down upon arrival at the scene of crime.

There are two stages in external physical criminal investigation. The first stage involves examining the body at the crime scene. Any visible injuries, position, blood stains are studied. After that the crime scene is photographed, finger prints are collected, also any kind of biological evidences is bagged and tagged. Based on the bloodstains or ballistics, an analysis of angle and points of trajectory is conducted. A case of poisoning or overdose of drugs can be determined from odors, color of lips, toes and fingernails. [1, 11]

Facial expression of the victim can also be taken into consideration .Death by bleeding can have relaxed and peaceful look on face. Drug overdose may involve a smiling look on the face, death by blunt trauma have more painful than peaceful look. Although these expression are not considered as a very reliable source as muscles relaxes with time. [2, 7]

After the external examination, the body is being sent to lab for autopsy, but before that the body is being meticulously examined, that is the second stage of external examination. In this examination, the nails of the corpse are cut and scraped so that any material underneath can be examined for the traces of blood or skin that may lead towards the offender .Body is being closely examined for any needle marks, time of death is being determined, pubic hair are being combed (in case of sexual abuse).Clothes are carefully examined for any biological or chemical evidence .Type of weapon is determined based on the type and depth of the wounds. During this, everything is being audio recorded .The doctor keeps telling his/her finding as they continue with the examination. Everything is being documented and photographed. [5, 8, 9].

In some of the cases, the skeletal remains of the victim is being found long after his/her death, in such cases the crime is usually murder. The study of these skeletal remains can give clues to sex, race and in some instances country of origin as advances in forensic science have allowed us to extract mineral samples from the bones and cross reference them against the various drinking waters to be found across the globe. If the skeleton is found in shallow grave, it may indicate that the murder was not intended and the offender has buried the body on a whim. The victim may reveal its identity, if there is any old injury, fractures or surgeries. All can be traced back in the records of the missing.

AUTOPSY

Even though we can have an idea, on a murder was conducted based on external examination. But the main evidence is considered as autopsy report. In autopsy, we can determine whether the victim was poisoned or overdosed. We can prove if the victim has tried to defend themselves or was overcome by the perpetrator. Such information is valuable in building up the physical profile of the attacker. It can also shed a light on how death was occurred accurately.

In addition to that autopsy can also help us in estimating the time of death, it's something which can be tricky to find out in case the victim was drowned, or was found long after his/her death.

Based on the autopsy we can also find about the last moments of victim life, for example if the report shows pizza contents in the stomach. The pizza would normally take around two hours to digest. It would be logical to assume that the deceased died prior two hours nearly to discovery. We can assume that the victim was first allured into false sense of security by having a meal with them. The Perpetrator might be someone victim trusted [3, 4, 7, 8].

Virtuscopy:

“ Virtual is derived from the Latin word ‘virtus’, which means ‘useful, efficient and good’, and autopsy means ‘to see with ones own eyes’”

It is a highly sensitive, specific and accurate examination. There are many problems with the traditional method of autopsy, some of them are religious and it damages the body therefore the relatives are reluctant for it. Also if the victim is a child or the body is found in damaged in biohazard, radionuclides or toxic substances, performing autopsy on such bodies becomes quite tricky.

Virtuscopy is easy examination, it overcomes all the problems faced previously. Also the 2D and 3D examination helps to visualize the findings which was not present during examination. Study of child abuse victim can be accurately without causing any further damage to the body. Also we have permanent evidence (digital or analogue), by freezing the findings during the investigation without any further damage to the body [1, 8, 10]

In Indian context

In India, there are four main government laboratories. They are in Delhi, Kolkata, Hyderabad and Chandigarh, apart from that there are twenty five laboratories at the state headquarters. These government laboratories are available only to the prosecution side and not to the defense side currently.

In medical colleges, forensic science was introduced in 1980s. Despite of the great development in the country's technology, there has been no significant improvement in this field. In colleges, there is an acute lack of proper instruments and faculties. The most appalling mistake done by the MCI (medical council of India) was to decrease its teaching hours and marks rendering the students to treat it as minor subject.

THE URGENT NEED

Over two crore cases are pending in Indian court and each year about 57 lakh are regularly registered. Proper forensic tests could stop several civil cases from going to courts. According to one article published by

Deccan Herald, it was said by ML Sharma (information commissioner at central information commission) that forensic science can be applied to ten percent of the total cases, that is around 6 lakhs and rest can be handled by legal works.

In India, we have some good laboratories, but it's not enough to meet the current demands for example let's take an example of CFSL.

The CFSL (Central Forensic Science Laboratory) is one of the most inclusive facilities in India. It has ten fully equipped divisions, that is biology, physics, chemistry, documentation, dactylogy, lie detectors, photo and scientific aids, serology and ballistics. It also has state of art laboratory for DNA profiling. But it is stretched to its limits with tasks from the CBI branch, Delhi Police, the Judiciary, vigilance department of ministries.

According to the article published by Deccan Herald, "there are 350 labs in the US compared to only India's 30 labs which takes around six lakh cases annually". There are many private labs and initiatives are proving to be a great in combating such shortage of the resources for example Truth lab. 'Truth Lab,' a private initiative, is providing facilities for tests to all — the prosecution, the defence and also to other private individuals wanting to resolve their disputes outside the courts.

In an interview, Ex Union Home Minister P Chidambaram maintained that the state of the Central and state forensic science laboratories "leave much to be desired" [11].

CONCLUSION

After going through all the methodology used in determining the cause of death, it is quite clear that if we examine the body thoroughly most of the crime can be solved. The problem arises when there is improper data handling or lack of resource. With the increasing population, the crime rates are also increasing, therefore it is necessary to have proper investment.

It is quite clear, that radio imaging is much more cleaner, accurate and cleaner method. Still there is a major limitation that, it is a very costly method. Therefore, it is necessary for government to pay more focus towards this immensely interesting and important field of science. So that we all can move one step forward towards a safer world.

ACKNOWLEDGEMENTS

The authors want to express their sincere gratitude to honourable chancellor Dr G Viswanathan for his constant support and encouragement.

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