

Expertise of Forensic Specialist in the Clinical Forensic Medicine Unit: A Need of the Hour

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Abstract

In the casualty it is the duty of an Indian Medical Graduate to examine and record the details of medico legal cases and send intimation to the police. In emergency services sometimes the Indian Medical Graduate is not able to record the injury details of the patient due to lack of expertise, disinterest and sense of apprehension towards legal procedures. According to the new curriculum the Indian Medical Graduates study Forensic Medicine in the second and third year and during Internship they are again posted in Forensic Medicine to undergo medico legal training. In the Postgraduate curriculum of Forensic Medicine they have casualty postings. The number of postgraduates joining Forensic in various medical colleges is dropping at an alarming rate as it is considered as dead body science. Clinical Forensic Medicine (CFM) is the area of forensic medicine that relates to the medical examination and assessment of the living. It also has a significant public health and safety role. Research based on clinical forensic examination results have the potential to contribute to injury and death prevention. The aim of this article is to share the author's experience in the Clinical Forensic Medicine unit.

Keywords: Clinical forensic medicine unit, Forensic specialist, Injury cases, Medico-legal cases.

Introduction

Indian history is a witness to the nobility of the medical profession and the doctors were placed on the same pedestal as that of God, however, the role of medicine in administration of justice was not a much discussed topic¹. The first recorded medico-legal autopsy in India was performed by Dr Edward Bulkley on 28 August 1693 and the first wound certificate was issued by him two years later².

In India the branch of Forensic Medicine has undergone dynamic changes of its tasks emulating the social circumstances of that particular era³.

One such change is the introduction of Clinical Forensic Medicine which introduces the subject of forensic medicine in a clinical set up. Any case registered in a hospital with injuries comes under its purview⁴.

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A doctor posted in emergency Medicine department has to deal with injuries related to accident/ suicide /homicide. It is the duty of any doctor attending medico legal case to intimate the police under section 39 of Criminal Procedure code failing which he / she is punishable under section 176 of Indian Penal Code, 202 Indian Penal Code & 201 Indian Penal Code⁵.

Medico Legal cases

According to Indian Institute of Legal Studies "A Medico-Legal Case can be defined as a case of injury or ailment, etc., in which investigations by the law-enforcing agencies are essential to fix the responsibility regarding the causation of the injury or ailment. It is a medical case with legal implications for the attending doctor where the attending doctor, after eliciting history and examining the patient, thinks that some investigation by law enforcement agencies is essential. It may be a legal case requiring medical expertise when brought by the police for examination"⁶.

Whenever a Registered Medical Practitioner comes across a case of injury or ailment due to accidents/ Suicide/ Homicide or when there is any disparity between the history given by the victim or bystander and the examination findings, it becomes the duty of Registered Medical Practitioner to report the same to the police at the earliest⁷.

The health care professional in the emergency department is the first person to come in contact with the victim. Depending on his knowledge and skills the case is assessed and evaluated and labeled as MLC or Non MLC⁴. India is a country with diversity in culture and religion so sometimes the doctor is under tremendous pressure to just treat the patient and not to inform the police. In most of the hospitals /clinics set up the first contact health professional is a non Forensic doctor while in a medical college it may or may not be so¹

The problem faced if a non forensic doctor examines the patient is missing or misinterpretation of an injury which could have been a valuable finding in a particular case and thereby denying justice to the victim.⁸ The Medico-legal report was found to be lacking some of the crucial details like patient bio-data, proper history of the incidence, identification

mark, and incorrect injury documentation affecting the correct framing of the opinion. Some findings like six penny bruises and defense wounds which may be seen in sexual assault and assault cases respectively can get misinterpreted in the report adversely affecting the outcome of the case.

The reason for this scenario is lack of experience/ knowledge in dealing with medicolegal cases. Before 2019, the subject of Forensic Medicine & Toxicology was taught to medical students for only one year but with the implementation of Competency Based Medical Education (CBME) curriculum the duration of teaching Forensic Medicine changed to 2 years (Phase II & Phase III- Part I)⁹. As per the CBME curriculum the students are formatively assessed for certifiable skills in both simulated & Clinic based environments giving them more exposure to medicolegal cases. In addition to this as per Compulsory Rotatory Medical Internship (CRMI) 2021 the interns are posted in the department of Forensic Medicine & Toxicology for a period of seven days. This also adds to their skill and experience¹⁰. So an Indian Medical Graduate (IMG) passing out from an Institution becomes more efficient and proficient in dealing with medico legal scenarios compared to earlier generations.

Clinical Forensic Medicine

Clinical Forensic Medicine is recognized as a separate branch in only a few countries¹¹, while in others it is a sub division of Forensic Medicine¹².

In India the first Clinical Forensic Medicine Unit (CFMU) was started by Mahatma Gandhi Institute of Medical Science (MGIMS), Maharashtra to deal with medico legal issues related to accidents and emergencies.¹³

In many of the current Medical colleges set up, the clinical Forensic medicine has been introduced in the department of Forensic medicine & toxicology as a sub division or unit to tackle the dilemma faced by the treating doctors in categorizing the case as Medico Legal or not.

Clinical Forensic Medicine Unit (CFMU) in Yenepoya (Deemed to be University) became functional in the year 2021. All the forensic medicine faculties with MD qualification are the members of this unit and are posted in CFMU on rotation

basis. Under the faculty a final year postgraduate in Forensic Medicine & Toxicology is posted as first responder to visit the casualty to observe the victim. The postgraduate is assisted by first year PG & Interns posted in Forensic Medicine & Toxicology as a part of their CRMI program. As the first responder it is the duty of the PG to document the history given by the subject/Victim, followed by a thorough physical examination after taking appropriate consents (from the victim if 18 yr old or above and Assent from Child (victim) along with consent from parent if child is above 12 and below 18yr). The PG has to intimate the respective police station. The Postgraduate has to then inform the details of the case to the Forensic MD staff posted. Yenepoya Medical College being a private institution case of drunkenness, potency examination is usually not conducted.

As per POCSO Act 2012, "in case the victim is a girl child, the medical examination shall be conducted by a woman doctor" (Section 27(2) of POCSO ACT 2012) however, non availability of a woman doctor should not be a ground for denial / delay of examination.¹⁴ Since number of female doctors in Forensic Medicine is comparatively less the examination of female survivor of sexual assault becomes a challenge. Here comes the importance of establishing a Multispeciality clinical forensic medicine unit which should preferably include a gynecologist, Paediatrician, Clinical Psychologist and a nursing staff trained in forensic nursing.

Clinical Forensic Medicine Unit (CFMU) should be made mandatory in all Medical Colleges. Postgraduates in Forensic Medicine should be posted in Casualty to check the possible medico-legal cases to get a firsthand experience. There is an urgent need to re do the Forensic curriculum for the undergraduates & postgraduates

Cases seen in Yenepoya CFMU

Case of Child Abuse

A 5 year old boy was brought by his family with an alleged history of assault by his 4 year old sister. During the process of history collecting the parents revealed that two days back the boy had dipped his hands in hot oil and also dropped hot water on himself. The boy was also found to have been admitted previously with a fracture of mid shaft of tibia and fibula due to alleged history of slip and fall in the bathroom.

On physical examination the child was found to have multiple injuries all over the body. The injuries were noticed to be at different stages of the healing process (point 1- 10).

1. Contusion present over both eyes. (Black eye)
2. Multiple abrasions over an area, 8.5cmX7cm, smallest measuring 1 cm in length and largest measuring 5 cm in length, on face across the right cheek, upper and lower lip (Fig 1)
3. Multiple abrasions over an area of 15cmX5cm, obliquely placed, present on front of chest and abdomen across the midline
4. Multiple healed abrasions, scab fallen off, with hypo pigmented patches, of sizes varying from 0.5cm - 3cm, at multiple sites on back of trunk.
5. Multiple abrasions over an area, 25cmX5.5cm, on back of chest across the midline, upper end at lower end of right shoulder blade, 8.5cm outer to midline.
6. Superficial burns over an area of 3cmX3cm, with surrounding inflammation, on the palmar aspect of the right hand, 3cm below the wrist. The edges showed pus laden brownish scab.
7. Dermo epidermal burns, involving the entire tip of index and middle finger of right hand with loss of nails and associated with inflammation.
8. Superficial burns over an area of 8.5cmX3.5cm, present on left buttock, which is 7.5cm outer to gluteal cleft
9. Multiple abrasions over an area of 12cm X 7cm, over front and inner aspect of right thigh.
10. Multiple Abrasions over an area of 5.5cm X 3cm, present on outer aspect of back of right hand (Fig: 2)



Fig 1: Multiple injuries in & around the lips

Fig 2: Multiple Abrasions outer aspect of back of right hand

The pattern and age of injuries were not consistent with history given by the parents. The child was scared and sad. Parents were not inclined for admission. This discrepancy made the forensic expert to contact the Child line services upon which parents confessed of child abuse but fearing the consequence of their act, they absconded before the officials reached the hospital.

Another case examined was of a one year old infant with history of incessant crying and fever of few hours duration. The child was apparently normal when the mother left him in the care of a nanny known to her. On her return from work she found her son inconsolable and having fever. The Pediatrician examining the child noticed a rash on his body and suspecting a foul play the forensic dept was intimated. On careful examination by forensic doctor it was found to be a tramline bruise which was tender on touch. A tram line bruise may be produced when an object like Lathi, belt, wire strikes the skin surface or when the body contacts a patterned surface¹⁵. The nanny was called for further history taking, during which she confessed of hitting the child. The mother refused for any further proceedings and the child was discharged against medical advice.**it**

Case of Assault

A 39 year old male was brought to the casualty with the alleged history of skid and fall from bike. On examination by the first responder (Forensic Postgraduate) 5 incised wounds and one abrasion was documented. The examining PG was suspicious of the authenticity of the history given by the victim as the pattern and type of injuries were not consistent with it. Intimation was sent to the police and when they interrogated the victim revealed the truth that he was assaulted by some people and it was the assailant who brought him to the casualty. The victim lied to the treating doctor as he was afraid of the bystander (assailant) standing nearby.

Case of suspected Poisoning

An 18 year old male was brought to the casualty with a suspected history of poisoning. The treating doctor was advised by a Forensic doctor on duty to collect stomach wash, which was collected and later sent to the Department of Forensic Medicine. The patient died after 5 days and the body was sent for

autopsy. During autopsy the viscera was collected and handed over to police for sending it to the regional forensic Lab in Mangalore. The stomach wash collected of the same patient was also sent for chemical examination.

In a usual treated case of poisoning resulting in death, the viscera sent for examination show nothing of importance but in this particular case as stomach wash was also sent, the chemical analysis of stomach wash showed positive for Glyphosate which was an important finding in stating the cause of death. However the viscera analysis didn't show any trace of Glyphosate.

Conclusion

The Clinical Forensic Medicine serves as a liaison between the hospital and judicial services providing valuable expertise in cases involving injury, assault and others. It plays the dual role of accurate assessment and documentation of injuries thereby ensuring prevalence of justice and protection of patient's fundamental rights. In the clinical forensic medicine unit the Forensic expert uses his medical knowledge and legal expertise to ensure beneficence and justice to the patients. The need of the hour is Multispecialty Clinical Forensic Medicine Unit (MCFMU). The team should include in addition to Forensic expert, a pediatrician, an Obstetrician (Preferably Female) a Psychiatrist / Psychologist and also include nursing staff trained in Forensic Nursing. The change in Syllabus of Indian Medical Graduate and introduction of compulsory rotation posting for Interns in Forensic Medicine and Toxicology is a welcome step towards strengthening CFMU, thereby opening up more job opportunities attracting medical students to pursue a career in the field of Forensic Medicine. The expertise of multidisciplinary medical professionals will help to fill the gaps in patient treatment thereby upholding the ethical principles of justice, truth and hassle-free legal proceedings due to fool proof documentation by the Clinical Forensic Medicine unit.

Conflict of Interest: The authors declare that they have no conflict of interest

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

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