

## EDITORIAL

# The status of forensic medicine in India

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*"Raped woman's testimony overrides medical evidence" (1)*

*"Medical evidence more credible than eye witness" (2)*

*"Medical expert grilled by defence in Best Bakery case" (3)*

*"Eight more doctors suspected of illegal human experiments (4)*

*"Ethics not a subject in medical college?" (5)*

*"Medical negligence cases pile up, but even more go unreported" (6)*

This random selection of headlines from leading newspapers highlights the importance attached to medical evidence in cases of death. They point to the ethical and legal duties of doctors, and, crucially, they reflect the status of forensic medicine in India. Below are some important problems that must be addressed to promote the ethical practice of this speciality.

### **Poor quality curriculum content, out-of-date textbooks and reference materials**

The broad goal of teaching forensic medicine to undergraduate students is to produce doctors who are well informed and capable of making observations and inferring conclusions, by logical deductions, to set enquiries on the right track in criminal matters/medico-legal cases. This requires knowledge of the law in relation to medical practice and medical negligence, and respect for medical ethics.

But the curriculum in Indian medical colleges has barely been able to meet the above objectives, as evidenced by a study conducted among undergraduates at the Bangalore Medical College and Research Institute and among doctors in private and government practice in Karnataka (7). Many undergraduates and practising doctors are not very confident about performing routine medico-legal duties. Further, the judiciary and police often find flaws in the certificates issued by medical professionals. It is to be noted that in India, unlike in developed countries, the bulk of medico-legal work is done by government medical officers who do not have a post-graduate qualification in forensic medicine. It is thus all the more necessary to train undergraduates in a more integrated manner so that they can execute quality medico-legal work that would be invaluable in the dispensation of justice.

In theory teaching at the undergraduate level, there is little emphasis on subjects with important ethical dimensions such as clinical research, documenting torture, organ transplantation, euthanasia, human rights violations, etc. In practical training of undergraduates, there is limited assessment of the skill of the student to perform tasks independently such as certificate writing, or performing medico-legal autopsies. Instead, the course structure demands from the student only observation of, and learning to assist in, these procedures.

To address these shortcomings, an expert panel (constituted by the Union Ministry of Justice, the United Nations Development Programme and a non-government organisation, Swami Vivekananda Youth Movement) has recommended revising the forensic medicine curriculum to incorporate all these topics, and sending the revised curriculum to the Medical Council of India (MCI) for implementation (7).

Textbooks have not been updated to include changed or amended laws such as the Pre-Natal Diagnostics Test Act, or the new Code of Medical Ethics 2002 (legally enforceable under the powers granted by the Indian Medical Council Act 1956 (8)). There are no recent judgments (case laws) quoted in these textbooks to explain the current scenario to students. The textbooks do not emphasise that the doctor should be neutral in approach and should not be biased or have pre-fixed assumptions. The role of the doctor in dealing with victims of torture, particularly domestic violence that women and children may be subjected to, is either given cursory mention or completely omitted.

Most textbooks do not employ gender-neutral language. Illustrations and photographs of trauma are mostly of the adult male, thus giving the wrong impression that trauma and torture are less commonly experienced by women and children. During the examination of a person who has made an accusation (such as of rape), any conclusion that this person is making false charges may be arrived at only by exclusion of other diagnoses and possibilities, at the end; it cannot be the first diagnosis. The language

of textbooks should be such that this message is clearly understood by the doctor and medical student. There is an urgent need for a thorough revision of textbooks and reference materials in forensic medicine to incorporate these aspects (9).

### **Autopsies done for the wrong reasons**

Medico-legal cases of death are often not autopsied, especially in rural areas. This can be for various reasons such as apathy on the part of investigating officers in not booking cases, ignorance on the part of the rural community (especially in poisoning cases), or even to show lower crime statistics (as in traffic accidents). To avoid the cumbersome legal procedures involved, villagers often think it better to cremate the body without an autopsy (as in suicide cases).

On the other hand, in bigger hospitals equipped with the latest investigative modalities, even when the precise cause of death, the identity of the person and the mode, manner and moment of death are known, a medico-legal autopsy is carried out routinely on mere technical grounds (that it is a medico-legal case). This causes unnecessary hardship to the relatives of the deceased and also increases the workload of the already overburdened forensic doctor.

Instead, it would be ideal to have a compulsory medico-legal autopsy in all those cases where the cause of death is not known, irrespective of whether it occurs in an urban or a rural area. And on the other hand, the law should be amended to avoid medico-legal autopsies being carried out routinely on technical grounds when the precise cause of death is known beyond doubt by ante-mortem medical investigations.

### **Mortuaries lacking basic facilities**

To achieve the objectives for which a medico-legal autopsy is carried out, mortuaries must be properly equipped. Unfortunately, in India, most mortuaries lack even basic facilities, leave aside the surgical suite-like atmosphere of their western counterparts. Many mortuaries do not have cold storage facilities for preserving dead bodies, and the few lucky ones that have them do not have uninterrupted electric power supply to run them. As a result, dead bodies stored here decompose and crucial medical evidence is lost, and with that the expectations of society for justice from the doctor. So-called mortuaries in many rural hospitals lack even basic cleanliness. There is no privacy-as broken window-panes and doors allow people to peep in throughout the autopsy process-and thus no confidentiality. There is a dearth of proper instruments (for example to cut the skull), and the lack of sterile containers to collect viscera for further investigations increases the chances of cross contamination.

As a result of this poor infrastructure, the chances of reaching a valid conclusion on the cause of death are poor. Unless government policies address these issues on an urgent basis, the proper investigation of crimes based on the conduct of a conclusive and exhaustive medico-legal autopsy, as is done in the West, may be restricted to reel life.

### **Shortage of forensic experts**

The number of forensic experts available in India, compared to the number required, is very small. This could be due to the stigma attached to an autopsy surgeon ("dead body" doctor), or it could be due to the poor working conditions, or the pressures of doing work that is disliked by many in society. In India, except in those hospitals attached to medical colleges, medico-legal autopsies are usually carried out not by forensic medicine doctors but by MBBS doctors who have insufficient experience of such work. As a result, there is a chance that the medical evidence is not properly presented in court. On the other hand, graduates do not consider that a forensic scientist's job is lucrative enough, though it is very challenging. Due to shortages of staff in most central- and state-run forensic laboratories, reports are delayed (and justice delayed is justice denied) and there are greater chances of overworked staff making mistakes.

By having forensic experts on, both, the prosecution and defence side in a case, we can eliminate bias. By having private forensic science laboratories we can have independent testing of samples by non-government laboratories. But, unfortunately, with a shortage of staff - both forensic doctors and forensic scientists - the idea of a forensic expert for the defence remains a distant dream in India.

### **Corruption and professional ethics**

Medical evidence alone stands above all other evidence in a court of law. There are many instances where, even if all witnesses turn hostile, courts have convicted the accused if the medical evidence is conclusive. However, efforts to attain justice have sometimes been frustrated by the corrupt practices of a handful of black sheep in the medical profession who withhold the truth or introduce false evidence. At the other end of the spectrum, honest doctors may not be allowed to function freely because they are subjected to pressure. The result is that the medical evidence submitted to the court is either improper or incomplete or inconclusive.

Newer techniques like narcoanalysis, brain mapping and polygraphy are being utilised by some forensic science laboratories in the investigation of various crimes (10). However the participation of doctors in such investigations raises many ethical questions. Is the ethical principle of beneficence violated? Does the participation of doctors in extracting information or a confession amount to participating in torture? Is there informed consent involved in these procedures?(11)

## Positive developments

As a response to judicial activism, media investigations, the committed efforts of NGOs and some proactive steps from the government and some gender-mainstreamed doctors, a few positive developments have taken place in forensic medicine.

As per the judgment of the Supreme Court in *State of Karnataka v Manjanna* there is now no need for a victim of rape to first lodge a police complaint to get herself examined and/or treated; she can go directly to a hospital and get examined and/or treated, and subsequently decide on legal action (12). Today, a victim of rape can choose her own doctor (female or male) from a government hospital or even the private sector, as per section 164A of the Criminal Procedure Code. This amendment, introduced in 2005, has also put an end to the debate on whether a male doctor could examine a female victim of rape (this was permissible in some states as a result of judgments by their high courts). At some hospitals, the use of Sexual Assault Forensic Evidence kits, largely due to the promptings of the Centre for Enquiry into Health and Allied Themes, or a similar kit developed by the government's department of women and child development, the Indian Medical Association and UNICEF, has enhanced the process of collection of medical evidence in the examination of victims of sexual assault, both adults and children. These kits act as ready reckoners so that crucial medical evidence is not missed during the step-by-step medical examination. Some hospitals are establishing one-stop crisis centres for addressing the needs of distressed victims of physical and sexual violence. These centres provide medical, surgical, psychological, legal, and rehabilitative support and counselling under one roof. An excellent example is DILAASA, a crisis centre for women, a joint initiative of CEHAT and the public health department, K B Bhabha Hospital, Mumbai.

Issuance of strict guidelines for investigating cases of custodial deaths, and their compliance by the National Human Rights Commission, has deterred many from falsifying post-mortem reports, particularly when there is evidence of torture. One of the guidelines mandates videographing the entire process of the inquest and post-mortem examination of the body, thus making the investigation transparent.

Many states have now allowed post-mortem examinations to be conducted round the clock, which allows night post-mortem examinations in deaths due to road traffic accidents or those booked as unnatural deaths. This has eased the agony of grieving relatives who had to otherwise wait unnecessarily for the autopsy (the technical reason, following an archaic rule of pre-independence India, was that visibility was better in daylight). Some states, such as Karnataka, also allow doctors qualified in forensic medicine from private medical colleges to conduct medico-legal post-mortems. This has eased the workload of government doctors and also made things easier for the general public.

With the emergence of DNA fingerprinting as an identification technique, cases of disputed paternity or maternity, rape and murder have been easier to resolve. However, in India only a few government laboratories do the test, so we do not have the facility of getting a second opinion with one more sample being tested in a private laboratory, which would eliminate bias in examination. In a few sophisticated and modernised forensic science laboratories in India, even nanograms of trace evidence can be detected. With the establishment of a few poison information centres in India, a beginning has been made in preventing morbidity and mortality relating to cases of poisoning.

The subject of forensic medicine has grown from the days when it was taught as part of pathology, to being a specialty in itself. However, forensic medicine has to advance to keep pace with new developments and we need the committed efforts of all doctors in this profession to meet the expectations of society.

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