

MEDICAL JURISPRUDENCE & TOXICOLOGY

WITH POST-MORTEM TECHNIQUES
AND MANAGEMENT OF POISONING

B. K. SENGUPTA

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MANAGEMENT OF POISONING.

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WITH MANY ILLUSTRATIONS



ACADEMIC PUBLISHERS • 700073 • INDIA

Dedicated to the Sweet Memory of
My Departed Father

LATE AKSHAYA KUMAR SENGUPTA

who was a dedicated teacher for over forty years

PREFACE

The present book is the outcome of the author's eighteen years' experience as a teacher and examiner in Forensic Medicine and as a Subdivisional Medical Officer and District Medical Officer in the State Health Services for another ten years. While teaching the undergraduate students of the different medical colleges, he felt the want of a handy balanced book for them although there was no dearth of text and reference books on the subject. He could realise that the burden of syllabus on students was so heavy that they could find little time to do justice to this subject. But really, Forensic Medicine is a subject that can be learnt with ease, provided it is taught in an interesting way. He has found that if, instead of encouraging the students to cram, he can cite important cases and the clues as to how the crimes have been detected, the students can be attracted towards this subject. That is why he has taken recourse to this mode of presentation. In preparing the book, the author has not aimed at making it a book of reference, but a book for practical purposes. So, he has laid much stress on those individual questions, which are very often asked in the examinations and courts, and on cases of everyday occurrence. He has given more attention to the subjects like identification, injuries, violent deaths, sexual offences, abortion, infanticide etc. Wherever necessary, he has added comparative tables and notes to draw the attention to the important points. Over and above the photographs, he has given some diagrams, particularly drawn for this book, to help the reader to remember the salient points with ease. At the end of each chapter, important questions are given to get an idea as to the standard of the undergraduate examinations of the Indian Universities. For the benefit of the practitioners, he has mentioned illustrative case notes, has included necessary forms and Acts and the processes and techniques as to how to perform the post-mortem, of which a junior medical officer is so much afraid. In fact, the author has left no stone unturned to make the book useful and practical both to the student and practitioner, keeping in mind not to make the book heavy going or lengthy.

The book is divided in three sections *viz.*, State Medicine, Forensic Medicine and Toxicology. Section I has three chapters describing Criminal Procedures in India, Laws in Relation to Medical Men and

Police Report, and Forensic Psychiatry. Section II has seventeen chapters dealing with all the important aspects of Forensic Medicine ; and Section III, devoted to Toxicology, has received the author's special attention. While describing the important poisons, their medico-legal aspects, modes of action, methods of detection, signs and symptoms, post-mortem appearances, he has given the respective treatment, both prophylactic and curative.

To name among the friends of the author, who have encouraged him to write the book are Prof. N. K. Dasgupta, Prof. J. B. Mukherjee, Prof. C. C. Mallick, Dr. D. N. Banerjee, Dr. S. Bhattacharya, Dr. A. Nandy, Dr. J. N. De to all of whom he is grateful. He is also grateful to the DHS, West Bengal, the Principal-Superintendents, BS Medical College, Bankura and BU Medical College, Burdwan for giving him permission to write and to publish the book for the benefit of the students. He also expresses his gratitude to Sri N. De, artist, Bankura Sammilani Medical College for drawing some figures ; Sri Sadhan Sen Gupta for taking some photographs for the book ; Sri Sarbani Dasgupta and Sriman Ambaris Sengupta for drawing a few diagrams and also to Sm. Tapati Sengupta, M.A. for her constant encouragement to complete the book. He should also thank the staffs of the Departments of Forensic and State Medicine, Bankura Sammilani Medical College and Burdwan University Medical College for the help and cooperation they rendered ungrudgingly. He takes the opportunity to thank Sri B. K. Dhur, the publisher, Sri Lakshman Ghosh and the staff of Academic Publishers for rendering him all sorts of assistance and cooperation.

In the end he should be failing in his duty if he does not acknowledge the help he has received from the standard works he has consulted while writing the book, the list of which is appended at the end as References.

The author is aware of his shortcoming and any suggestions towards improvement will be thankfully acknowledged. He will also consider himself amply rewarded if the students, for whom this book is primarily meant, are really benefited by it.

B. K. Sengupta

May, 1978

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MEDICAL JURISPRUDENCE AND TOXICOLOGY

INTRODUCTION

Medical Jurisprudence, Forensic Medicine, State Medicine, Legal Medicine are terms which are not synonymous, though frequently used as though they are.

Forensic (Law Courts) medicine (Medicine of the Forum or Law courts) or Legal Medicine, or State Medicine is the branch of medicine which deals with the application of medical knowledge for the purpose of Law ; its aim is to elucidate the truth. This includes *Toxicology*, which deals with poisons, their sources, properties and characters, symptomatology, treatment, changes produced in the tissues as studied during life and after death, their isolation during life and after death and the study of the regulations regarding storage, sale and prescriptions. *Medical Jurisprudence* (*juris* — lay : *prudence* — knowledge) is the branch of law which deals with the organisation and regulation of the medical profession and the duties and the obligations of a medical practitioner towards the State, to his patient and to his professional colleagues and their families and *vice versa*. It helps in governing the correct practice of medicine. Medical jurisprudence is as old as the human civilisation and it existed in every country in some form or other. The Hindu Law prohibited the maltreatment of man and beasts and the practice of medicine was regulated. The Roman Law prescribed that only certain people with prescribed knowledge were allowed to practice medicine.

In all civilised countries the right to practice medicine is subject to law. The medical practitioners are considered to be very helpful to the society and the public. The public are not able to gauge the ability of such persons and here is the responsibility of

the State to provide efficient service to the community at large and to see that the persons allowed to practice medicine and surgery are sufficiently trained and qualified to take up the responsibility and to impress upon the public the risk of being treated by quacks. The State has got the power to punish such unqualified practitioners if untoward results follow his treatment.

Now-a-days, Forensic Medicine is a well-regulated, progressive science and its study form an essential part of medical course of every University and Licensing body. The science is subdivided into specialities and there are specialists in different branches of forensic medicine, viz., forensic pathology, toxicology, finger prints, firearms, and ballistics, etc. The forensic laboratories established by the Central and State governments in India provide for special examinations that are of great value in legal medicine.

CHAPTER I

CRIMINAL PROCEDURE IN INDIA

The Indian Law is mainly based on English and Roman Laws with modifications to suit the customs and religions of various types of people living in this country.

Inquest : Literally it means an enquiry. This may be done by :

- (1) Coroner — at Calcutta and Bombay only
- (2) A Magistrate
- (3) A Police Officer.

Coroner : A Coroner or the judicial officer of the State is appointed by the State Government in Bombay and Calcutta. His court is a court of enquiry and not a court of trial, in cases of sudden and unexpected and unnatural deaths occurring within his jurisdiction.

Magistrate's Inquest : He conducts inquest where there is no Coroner, and in cases of deaths in Jail or Police custody (lock-up) or in cases of police firing or like conditions. In such conditions Police is not allowed to hold an inquest for obvious reasons.

Police Inquest : It is conducted in all places except cities of Bombay and Calcutta and conducted by an officer-in-charge of police station. Even a head constable, when in charge of the police station, may conduct an inquest.

On receipt of an information regarding occurrence of a crime, the officer visits the place of occurrence and, in the presence of at least two respectable persons of the locality, holds enquiry into the incidence, prepares the report and signs it in presence of witnesses who also sign the document along with the enquiring officer.

Coroner, Duties of a Coroner, Coroner's Court : The Coroner's court is a court of enquiry and not a court of trial.

1. The Coroner holds enquiry into causes of all cases of sudden or unnatural deaths, either accidental, suicidal or homicidal in nature, and even in certain cases of natural deaths occurring under suspicious conditions, in cases of deaths from anaesthesia, in deaths occurring

in police/jail custody, except in cases of deaths from cholera or epidemic diseases. He may visit the place of death and take charge of such material which he may think to be related to investigation of death.

2. The Coroner may ask a doctor to conduct autopsy on a dead body with or without analysis of viscera.

3. He may ask the doctor to furnish the autopsy report.

4. He may summon him to give evidence before him in such cases at the time of inquest. He may/may not sanction suitable remuneration to the medical officer for attending the court.

5. He views the dead body with the help of jurors (5, 7, 9, 11 etc. in number) and hears evidences from witness on oath at the time of inquest and issues disposal orders for disposing dead bodies. At the time of inquest the accused may or may not be present, or be represented by his counsel and has got the right of producing witnesses, cross-examining witnesses and making statements if he likes.

6. The Coroner may order for exhumation of a dead body lying within his jurisdiction.

7. He may appoint a Deputy Coroner to work for him during his absence on leave, sickness or absence from lawful or reasonable cause.

8. In India, the Coroner has the power of committing a case direct to the Court of Session.

The Coroner enquires into the culpability of a suspected person and returns a verdict. If he cannot come to any decision, the verdict may be an open one.

The only punishment a Coroner may award is for contempt of Court. In Coroner's Court the evidence given is on oath.

Different Courts in India: The courts are either civil or criminal. The doctors are commonly summoned to attend a criminal court, but he may also be asked to attend civil courts too.

There are four main types of criminal courts in India.

1. The Supreme Court in Delhi is the highest tribunal court in India. Criminal cases for appeal may be referred from High Courts of the provinces with permission and certificate from the High Courts that they are fit cases for appeal involving a point of law.

2. The High Court with Appellate and Original sides where criminal cases are tried.

It is the highest court of the State and it may pass any sentence prescribed by law. It can also reduce or enhance any sentence passed by a lower court and it confirms the death sentence, passed by a Sessions' Judge. The criminal cases are tried with the help of Jurors.

3. The Court of Sessions: It is the highest court of a district and may pass any sentence prescribed by law; but death sentence passed by this court requires confirmation by the High Court. There are no jurors now. They actually try cases committed to them by a Judicial Magistrate after preliminary enquiry and on finding that a *prima facie* case exists. An Assistant Sessions Judge can not pass a death sentence, or a sentence to life imprisonment, or a term exceeding ten years. In Calcutta, the City Sessions Court functions as a sessions court of the District. The trial is conducted with the help of jurors, as in the High Court.

4. The Magistrates' Courts: Now judicial magistrates try cases in this State. There are three classes of magistrates, according to their power, which is conferred according to their seniority and experience in conducting trial of cases. A sub-deputy magistrate may be of first class power, whereas, a deputy magistrate may be with second class power. In Presidency towns the magistrates are known as Presidency magistrates. They are always with first class power.

Powers of Magistrates: The Presidency Magistrates and Magistrates with first class power can try all cases except cases of rape, murder, miscarriage, unnatural offences, rioting, arson, dacoity etc., though they may commit these cases to the Sessions for trial. They cannot for a single offence pass a sentence for more than two years and fine more than Rs. 2000 or both.

Second Class Magistrates: They may not try any offence punishable with three years' imprisonment and may not for a single offence sentence to more than six months in jail and five hundred rupees as fine or both.

Magistrates with Third Class Powers: They may not try any offence punishable with one year's imprisonment and may not for a single offence sentence to imprisonment for more than one month and Rs. 100 as fine or both. Magistrates with third class power may not sentence to solitary imprisonment. The punishment, which a magistrate is authorised to award, may be doubled by him when passing sentences for two or more offences at a trial.

Summons Case: Cases punishable with imprisonment for one year or less is known as a *summons case*, whereas if it is more than one year, it is known as a *warrant case*.

Juvenile Courts: These are courts for trial of juvenile offenders (juvenile delinquent—age upto 16 years).

Municipal Magistrate's Court: In Calcutta, and cities like it there are Municipal Magistrates' Courts where cases of food adulteration and the like are sent for

trial by a Magistrate. In Mofussil areas, such cases are tried by Judicial Magistrates.

Jurors : A jury is empanelled to assist the presiding judges in conducting the trial of criminal cases in High Courts and City Sessions Courts. In a Coroner's Court there are jurors to help an inquest.

Jurors are of two types : *Common* and *Special*, the latter is for conducting trials of serious offences viz., murder, rape etc. Jurors' verdict is binding on the court. If the judge disagrees, he may arrange for re-trial with fresh set of jurors. Jurors are master of facts with no knowledge of laws.

Assessors : Sometimes, trials are conducted with the help of assessors. Their verdict is not binding on the court.

Subpoena (Summons) (*sub* — under ; *poena* — penalty) : It is a writ or document issued from a court, under its seal, to a witness, commanding his attendance in the court on a particular date and time for the purpose of giving evidence. He may be asked to bring some document also ; he is warned to attend the court under certain penalty and not to disobey it without sufficient reason and after attending not to leave the court without permission. It is issued in duplicate, the original one to be receipted and sent back to the issuing court and the duplicate to be retained and produced in court at the time of attendance.

Procedure when the witness gets more than one summons on the same day :

1. Criminal cases will always receive priority over civil cases.
2. When both summonses are from criminal courts, he will attend the higher court, *i.e.*, High Court would get preference over Sessions Court or Magistrate's Court ; Magistrates with first class power over Magistrate with second class power and so on. When both are from courts of same power, the one received first, would get priority. If a summons has been returned previously, effort should be made to accommodate it first. If two summonses are from the same campus or within short distance, the second may be attended after attending the first. In any case, where one court could not be attended, the presiding officer of that court must be informed well in advance. (*Specimen of summons at the end*).

Conduct Money : In civil cases, the doctor is given some money to cover his expenses and fees. This should be paid at the time of serving the summons. If it is not paid, the medical officer may ignore the summons. If it is inadequate, he may ask the court for its enhancement at the time of attendance. He cannot refuse attendance in a criminal court, just because no money has been paid.

Professional Loss : If a private medical practitioner, or a government medical officer who is allowed to do private practice attends a court outside his normal official duty hours and is detained in court for more than one hour, he is granted one fee as professional loss, the amount is decided by the presiding officer of the court. In private practice, the fee is not fixed ; it is a contract between the doctor and the party, but it should not be unusually high, in which case the question may be raised that the doctor has been purchased.

Oath : An oath is a declaration required by law to be made before a court by a witness who says "I swear by the Almighty God that the evidence I shall give to the court shall be the truth and nothing but the truth. So help me God". If the witness wants to give evidence on solemn affirmation, he is to say, "I solemnly affirm that the evidence which I shall give to the court shall be the truth, the whole truth and nothing but the truth." He usually holds one religious book while taking oath.

Perjury (Sec. 193 I.P.C.) : A witness on oath or solemn affirmation may be prosecuted for perjury (wilful utterance of false statement) if he does not speak the truth.

Leading Questions : These are questions which suggest their own answers. These are not allowed in examination-in-chief except when a hostile witness is being examined, but allowed in cross-examination.

Hostile Witness : He is one who makes statements contrary to previous ones made in a court or while giving statement to a Magistrate or a Police Officer with some motive to conceal truth. Once a witness is declared hostile, he may be cross-examined by prosecution counsel.

Procedures for a Medical Witness in a Court of Law :

1. *Receipt of a summons.*
2. *Reporting to the court on appointed date and time :* He usually reports himself before the public prosecutor, court inspector or the bench clerk.
3. *Oath taking.*
4. *Examination-in-chief :* This is the examination of the witness conducted by the counsel for prosecution, public prosecutor or court inspector in government cases and by an advocate in private cases. Here, after the name, qualification with years etc. are taken

down, the medical officer is given the report he has submitted in connection with the case to refresh his memory, on basis of which he gives his evidence. The object of examination-in-chief is to place before the court all facts bearing on the case and his interpretation of these facts. Leading questions are not allowed.

5. *Cross-examination*: It is conducted by the defence counsel. The object is to get from the witness such facts which are favourable to his client and weaken the evidence given at the time of examination-in-chief. Here leading questions are allowed and there is no time limit for cross-examination. The questions put to the witness must be relevant to the case, otherwise the presiding officer of the court may disallow such questions.

The defence counsel will always try to prove that whatever the witness has said in the examination-in-chief is not true, his report is inaccurate or incorrectly written and not to be taken into account, his experience in the matter is not sufficient. He may very often put irritating questions too. Sometimes, if the cross-examination is too prolonged, it may act as a double-edged sword, as it may weaken his own stand by bringing too many irrelevant questions.

6. *Re-examination*: When needed, it is done by the prosecution counsel to remove any doubts which might have arisen during cross-examination. The prosecution may bring points which might have been omitted at the time of the examination-in-chief and for this, he is to take permission from the court, and if permitted, re-examination is allowed. The defence counsel, may also cross-examine the witness on the point raised in re-examination. Leading questions should not be asked in re-examination.

7. *Examination by court*: During the entire process of the trial, the presiding officer of the court may put questions to the witness. These are known as *Court questions*, i.e., questions put by the court. These are done to clarify any doubt, or to clarify some points which have not been raised.

8. *Questions by jurors*: The members of the jury may put questions to a witness through their 'foreman' at the end of evidence of the witness.

When all these are over, the witness will be given a transcript of his evidence for correction after which he will sign it. Then he would take permission from the court and leave. Of course, when