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Editorial

Medical Certificates and Medico-legal Reports in Undergraduate Teaching

Mandar Karmarkar[a*]
[a]Professor, Department of Forensic Medicine & Toxicology, Bharati Vidyapeeth Deemed to be University, Medical College, Pune, Mahrashtra, India. 411030

Dear Colleagues,

Forensic Medicine and Toxicology is part of II MBBS curriculum in the current syllabus of MBBS. It is a vast subject and has applications in day to day practice of registered medical practitioner.[1] In this article we will discuss about medico-legal reports and medical certificates. The basic aim and objective of the MBBS curriculum is to create a primary care physician.

The idea of the article is not to discuss the definitions, formats or method of teaching but to highlight those aspects of the certificate that are important for the undergraduate student from exam point of view and also from medico-legal perspective as a practitioner.

In most of the universities / colleges, following certificates and reports are included in the syllabus of II MBBS as a part of their training.

1. Medical Certificate of Cause of Death (MCCD)
2. Sickness / Fitness certificate
3. Injury report
4. Age estimation
5. Drunkenness
6. Examination of victim and accused of rape / sexual violence.

Medico-legal reports are issued on the request of investigating officer while certificates are issued by the doctor on the request of patient. Medical certificates and medico-legal reports, both require certain basic precautions to be followed while writing and issuing the same to the concerned person.[2] These are as follow:

- Avoid scratching / overwriting. If done, initialize it.
- Should keep a copy of the certificate for personal reference / future use.
- No medico-legal document should be handed over to the third party
- Minimum two Identity marks should be noted down.
- Every document issued by the Doctor can be used as medical evidence in the court of law.
- For disease, current ICD (International Classification of Diseases) should preferably be referred.
- Basic details like name age, dates, timings should be correctly written.
- Written informed consent must be taken wherever applicable.
- No use of short forms, except universally accepted one.
- Avoid complex medical terminologies as far as possible.
- History must be always in patient's / relative's words.
- Opinion must be based on facts observed and available documents rather than history.
- Signature of the doctor along with name, degree and registration number is must.
- If an accused of any offence, brought by police, is refusing the consent for examination, RMP can proceed with the examination only if the written requisition letter is brought by the police officer not below the rank of a Sub-Inspector.

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***Corresponding author:** Dr Mandar Karmarkar, Professor, Department of Forensic Medicine & Toxicology, Bharati Vidyapeeth Deemed to be University Medical College, Pune, Maharashtra, India. 411030 Phone: 020-24407114 Mobile No. +91-9822912023 Email id: ugacademics17@gmail.com

1. MCCD- Medical Certificate of cause of death is most important from the practitioner's point of view. Every registered practitioner is going to issue a certificate of cause of death at least once in his career.[2]

- Shock, asphyxia or cardio-respiratory arrest should not be written as the cause of death.
- The medical practitioner should have seen the patient at least within his last 14 days.
- If the practitioner is not sure about the cause of death, he should inform the police.
- MCCD is issued by doctor and death certificate/pass is issued by local health authority.
- Sign, symptoms, lab investigation are not supposed to be written in MCCD

2. Sickness/ Fitness Certificate- It is one of the commonest certificate issued by every medical practitioner.

- ➢ Do not write sign/symptom e.g. jaundice, fever.
- ➢ The disease should be correctly mentioned e.g. hepatitis, enteric fever, viral fever etc.
- ➢ The number of days should be correctly mentioned and the date of fitness.
- ➢ Not to issue for a prolonged period. Can ask for follow up and then reissue.

3. Injury Report- This is issued on the request of investigating officer or police officer. Usually doctors working in government, faculty from forensic medicine have to issue this report. But surgeon or an orthopaedic may also have to issue such report as cases of trauma/assault are admitted under their care.[3]

- Abrasion and contusion are two dimensional injuries while laceration, incised wound and stab wound are three dimensional injuries.
- As the patient is usually examined in casualty or ward the depth of the injury should be mentioned as skin deep/subcutaneous deep/ muscle deep or bone deep
- The depth can be mentioned properly only when the patient is operated
- Fracture dimensions are not to be written
- Each and every injury has to be written separately describing details of each one.
- Type of weapon is to be written and not the name.
- The severity of injury must be decided as per S 320 IPC and not according to type of injury, except fracture e.g. all stab wounds are not grievous
- Age of injury can be mentioned based on presence of blood, scab formation, colour changes, hematoma, colour of scab and stage of healing.
- Blood has to be preserved for grouping and alcohol
- Investigations wherever necessary like- X-ray, CT, MRI or USG should be done and opinion may be given after the investigations.

4. Age estimation- This certificate is issued only by faculty of forensic medicine and doctors in government service.

- ➢ History with regards to diet, endocrine diseases
- ➢ Development of secondary sexual characters
- ➢ Examination of teeth with x-ray wherever required
- ➢ Radiological examination of epiphyses. Usually AP and Lateral both views have to be taken. Minimum required number of x-rays should be advised
- ➢ Can take opinion from radiologist.
- ➢ Findings (sexual characters, teeth examination and radiology) should be able to give both, upper and lower limit

5. Drunkenness- This certificate is also issued by medical officers working in government hospitals or by faculty of forensic medicine.

- Consent of the person (if the person is in a condition to give)
- Medical and drug history are important for differential diagnosis.
- Based on examination doctor should be able to write whether the person has only consumed or is also under influence of alcohol. If its only consumption, then only positive finding on examination is smell of alcohol and slight dilatation of pupils
- The time of consumption and examination is also important
- Blood and urine should be preserved irrespective of clinical opinion
- Preservative will be potassium oxalate and sodium fluoride for blood

- Students should be aware of Bombay Prohibition Act

6. Examination of victim of rape – This certificate is issued by a Gynecologist along with faculty from forensic medicine. The students should be aware of the principles for preservation of various samples and the protocol for examination

- Written informed consent of the victim with regards to examination, collection of samples and treatment required
- Examination to be done in presence of female attendant
- Strict confidentiality is must
- Identity must not be revealed
- Locard's principle
- Proper procedure of preservation of samples for FSL
- Opinion- rape is a legal opinion
- Students/Practitioners should be aware about the guidelines and proforma issued by Central / State Government from time to time.

7. Examination of accused- This certificate is issued by a specialist from forensic medicine. The students should be aware of the principles for preservation of various samples and the protocol for examination

- Locard's principle.
- Proper procedure of preservation of samples for FSL.

The author also feels that at present students have to remember the format of the report/certificate for examination. The result of this is that students remember the details of the format but make errors in actual writing of the reports with regards to type of injury, disease etc. In practice a doctor or forensic specialist has a printed format with him while issuing the report or certificate. Similarly, students should be given blank formats of the certificate or report so that they remember the more pertinent points.

The students should be exposed to more and more case scenarios of various types and writing the certificates / reports. This will be the first step towards creating a competent primary care physician and a registered medical practitioner who will be working at different health set-ups like Primary Health Centres, Private clinics, Private / Govt. tertiary care hospitals, etc. Such practitioner will be able to handle medico-legal problems more skillfully thereby providing better patient care and better administration of justice.

References-

1. Justice K. Kannan, Dr. K. Mathiharan- Modi -A Textbook of Medical Jurisprudence and Toxicology. 24th Edition 2012, 3rd reprint 2013, published by LexisNexis (Butterworths) Wadhwa Nagpur, India. January 2012, pgs. Section-1 200-213,231-249, 285-290, 557-567, 664-677. Section-2 pgs. 181-185.
2. Rajesh Bardale- Principles of Forensic Medicine and Toxicology. 1st Edition, published by Jaypee Brothers Medical Publishers (P) LTD, New Delhi. January 2011pgs. 48-65, 135-136, 252-256, 318-322, 516-522.
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Original Research Article

Effect of Medico-legal Training Services to Medical Officers Handling Casualty and Postmortem Services

Bhise SS[a*], Waghmare SA[b], Chikhalkar BG[c]

[a]Associate Professor, [c]Professor & Head, Department of Forensic Medicine & Toxicology, Grant Government Medical College, Mumbai, Maharashtra, India.400008
[b]Associate Professor, Department of Forensic Medicine & Toxicology, Dr V M Government Medical College, Solapur, Maharashtra, India.

Article Info

Key words
Medico-legal services,
Forensic Medicine Specialists,
Posts in District Hospitals.

Abstract

Casualty being the mouth-piece of the hospital- reflects working scenario of that hospital, as every emergency case to be registered in casualty department of that hospital. As far as medico-legal services are concerned, many of us have seen medico-legal examinations conducted and certifications undersigned by any MBBS doctor or gynaecologist or dermatologist etc. who are not specialized in medico-legal work. As per statistics, about 80 per cent of medico-legal work is done by non-forensic doctors, flooding the Department of Forensic Medicine and Toxicology in teaching hospitals with second/expert opinion, due to non-specialized medico-legal knowledge of other doctors. This study is conducted at tertiary care hospital where the CMOs and RMOs working in these hospitals face medico-legal problems as generalized fear for handling the cases, documentation of injuries or conduction of difficult autopsies. One pre-test before training and one post-test after training was conducted and result was analyzed. In this result 94% improvement was seen in Medico-Legal work.

1. Introduction

Medico legal case is a case of injury or illness resulting out, of sexual assault, poisoning or any suspicious circumstances, where the attending doctor, after eliciting history of the patient and on medical examination, decides that an investigation by law enforcement agencies is essential to understand establish and fix the criminal responsibility for the case in accordance with the law of the land in the interest of truth and justice of victim/patient and state.[1] However it is crucial to assess what factors aid a Health care provider in determining which case becomes medico legal and whether this is a uniform practice across hospitals in India.

As per statistics, about 80 per cent of medico-legal work is done by non-forensic doctors, flooding the Department of Forensic Medicine and Toxicology in teaching hospitals with second/expert opinion, due to non-specialized medico-legal knowledge of other doctors. In India, except in those hospitals attached to medical colleges, medico-legal services are usually offered not by Forensic Medicine doctors, but by MBBS doctors who lack experience in such work.[2]

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*Corresponding author: Dr. Sadanand S Bhise, Associate Professor, Department of Forensic Medicine & Toxicology, Grant Government Medical College, Mumbai, Maharashtra, India. Email: sadanand.bhise@gmail.com (M): +91-9503757487

Therefore, there is a possibility that the medical evidence is not properly presented in court resulting in delaying of reports (and justice delayed is justice denied).[1] The benefit will be for criminals who can get more acquittals due to poor quality of medico-legal services by MBBS/ non-forensic specialists in the country.[2]

The medico-legal services in our country are at an all-time low. This has reflected time and also a non-forensic medical practitioner finds himself in trouble, when he goes to court of law to depose. A larger negative impact is on the society, when an offender is not convicted due to lack of proper medico-legal investigation.[3]

Total 30 Medical officers working as CMO & RMO at tertiary care hospital in Mumbai were studied in group in this study and Medico-Legal training was given to them. Out of 30 subjects 24 were males and 6 were females. One pre-test before training and one post-test after training was conducted and result was analyzed. In this result 94% improvement was seen in Medico-Legal work.

Aims & Objectives:

1. To know the difficulties faced by doctors in daily patient care.
2. To know the Medico-Legal knowledge of Subjects after training
3. To aware of in depth effects of medico-legal documentation in court of law for future correspondence
4. Assessment of medical officers before training
5. Assessment of medical officers after training
6. Assessment of progress and quality medico-legal work by random surprise visits.

Material and Methods:

- Medical officers from Govt. hospital & its peripheral Hospitals were invited for this session.
- They are divided into different batches so that the hospital work won't be hampered meanwhile.
- The entry of participant MO is restricted to max 6 in each batch, so that each faculty member can give proper attention to individual participant.

Inclusion Criteria:

Medical officers from Govt. hospital & its peripheral Hospitals who are working in casualty and Post-Mortem room.

Exclusion criteria:

1. Medical officers who are not working in casualty and Post-Mortem room.
2. Medical officers who have not attended all the sessions of training.

Results & Discussion:

Ice-breaking session with multiple close ended questions and open ended questions asked to refresh their medico-legal knowledge, their practical difficulties during on field medico-legal work. Before training Pre-test was conducted. Lectures of senior faculties were conducted which included all aspects of hospital medico-legal work and post mortem work.

Hands on training given to individual participant on each case in casualty, wards, MLC age cases at the department of FMT and post mortem room including cold storage keeping. At the end post-test was conducted. Participants (CMOs & RMOs) were friendly interviewed at different levels during the sessions at Resident level, Assistant Professor level and Senior Faculty level to clarify the doubts regarding medico-legal work process.

Table - 1

Post-Mortem conducted up-till	No Post-Mortem conducted till now
21	9

Total 30 participants have participated in this study. 18 participants were from same parent institute and 12 participants were from peripheral hospitals. Out of 30 participants 24 were male and 6 were female participants.

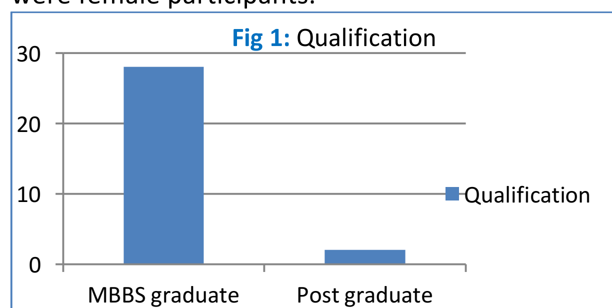


Fig 1: Qualification

From fig 1 it is seen that 28 participants were plain MBBS graduates and 2 were postgraduates. Among all these participants' maximum were between 1 to years of medico-Legal experience as shown in fig-2. Of all these participants 21 has conducted post-mortem and 9 participants have not exposed to post-mortem till now (Table-1).

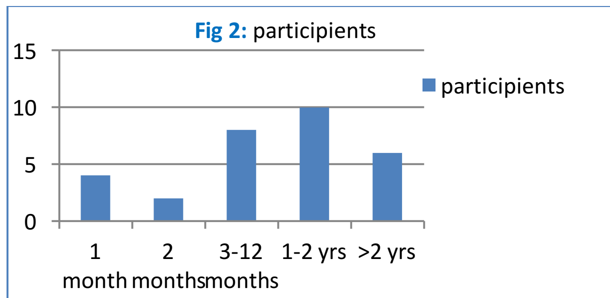


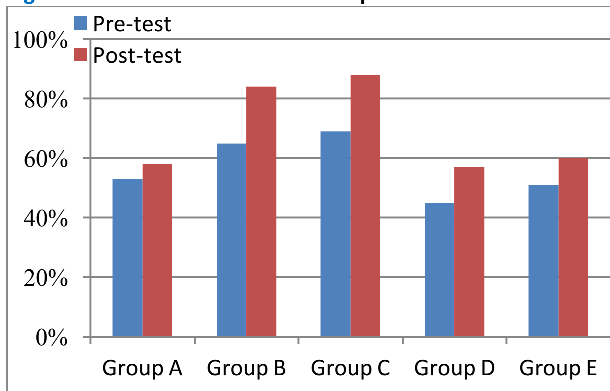
Table - 2	
Attended Court room Summon	Not attended Court room Summon up-till
18	12

Out of 30 participants 18 have attended court room summons and 12 participants have not exposed to court room summons till now (Table-2). 17 participants have taken help of expert opinion from Forensic Medicine department in complicated cases, and 13 participants has not taken help of expert opinion from Forensic Medicine Department (Table-3).

Table - 3	
Taken help of expert opinion from FMT Dept	Not Taken help of expert opinion from FMT Dept
17	13

After the training program, all the participants feel satisfactory for clarification of their doubts with respect to medico-legal ante-mortem & post mortem work. One post-test after training was conducted and result was analyzed. It was observed that there was improvement in their performance (Fig-3).

Fig 3: Result of Pre-test & Post-test performance:



Medico-legal documentation & their preservation became neat after the training session. Random unofficial friendly visits were carried out by senior faculty member along with one resident at each peripheral hospital and documents were reviewed. Among these visits proper medico-legal documentation was seen in 94% cases, while 6% need further improvement. The reason for this might be inadequate exposure to medico-legal services, lack of knowledge, and lack of interest on the participant side. It was definitely beneficial for all (100%) participants.

The Madras High Court has shown its concern in following words: "This Court is much desirous and concerned of expressing that the branch of science of Forensic Medicine is an effective scientific method, which plays a vital role in assisting the Justice Delivery System to render justice to the society, in the administration of Criminal Justice.

In order to make this particular subject more viable, more teeth have to be provided by the legislature and the authorities concerned, to make it trendsetting. The service rendered by the Forensic Medicine experts in this regard is unique and deserves admiration, but the real state of affairs remain that medico legal cases are handled in this country by the non-forensic experts and none could be blamed in this regard.[4]

There is need for implementation of recommendations of the Survey Committee Report on medico-legal practices in India 1964, along with various recommendations of the Central Medico-legal Advisory Committee made from time to time since its inception in 1956. The Committee during its first session in 1956 considered the suggestion of the Ministry of Home Affairs, Government of India, to create a special cadre of medico-legal officers.

However, the Committee recommended that each State should give advance medico-legal training to at least one officer in each district and in important cities and towns and such an officer should undertake the specialized medico-legal work himself and also co-ordinate all general medico-legal work by other Government medical officers in his jurisdiction resulting in creation of specialist Forensic Medicine and Toxicology department throughout the country.[5-7]

Conclusions:

- Regular training sessions as per Maharashtra Civil Medical Code to be carried out to enhance the knowledge of Medical Officers.
- Forensic expert should be available 24×7 to examine cases of survivors of sexual assault,

prisoners, and injury cases with priority along with CMO.

- Provision of Personal Protective Equipment's as means for Universal precautionary measures.
- Maintenance of equipment's at autopsy room.
- Periodic review of medico-legal working by senior authorities.
- Provision of District Forensic Medicine specialists will cater to the need and will help in guiding both police and judiciary. The advantages, being provision of medical clarification or guidance to the police officials in collecting evidence and understanding the circumstance of death by visiting crime scene, will definitely leads to reduction of the travel and time burden of police officials by providing accessibility in their jurisdiction.

References:

1. Jagadeesh N. The *status of forensic medicine in India. Indian* J Med *Ethics. 2008 Oct-Dec*; 5(*4*):*154-6.*
2. RK Gorea. Effect of Vision 2015 on Forensic Medicine. J Punjab Acad Forensic Med Toxicol. 2011; 11(1):5-8.
3. S. S. Verma. Letters to Editors. J Punjab Acad. Forensic Med Toxicol. 2008; 8(2):41-45.
4. Muniammal vs. The Superintendent of Police, Kancheepuram District. Original Criminal Petition No.12582 of 2007, Order Dated: 16 Feb 2008. The High Court of Judicature at Madras. [Online] Available at: http://judis.nic.in/judis_chennai/qrydisp.aspx?filename=13198. [Assessed: 09 Sept2016].
5. Recommendation of central medico-legal advisory committee. Chapter V. Survey Committee Report on Medico-legal Practices in India, 1964. [Online] Available at: http://reconstructiveandinvestigativefm.20m.com/survey%20committee%20report%20details.htm#CHAPTER V. [Assessed: 09 Sept2016].
6. Hospital Administration Manual, chapter 4 p53-61, chapter 12 p143-163, chapter 20 p226-238.
7. Maharashtra Civil Medical Code, part1 chapter20 p264-298.

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Review Article

Consent: Medicolegal and Ethical Implications

Atul S Keche[a*], Harsha A Keche[b]

[a]Associate Professor, FMT; [b]Associate Professor, Anatomy;
ACPM Medical College, Dhule, Maharashtra, India.424002

Article Info

Key words
Informed Consent,
Negligence,
Disclosure,
Informed Refusal.

Abstract

Consent means voluntary agreement, compliance or permission. It signifies acceptance by a person of the consequences of an act that is being carried out. Before proceeding for any medical examination, consent is a must. Examination or treatment of patients without consent amounts to assault and may invite legal liabilities for a doctor. Well documented informed consent may act as a good defence for physician in medical negligence cases. Often doctors are ignorant of the requirements of a valid consent and its medicolegal aspects. Indian law does not specifically mention about the age of valid consent by a person. The Indian Penal Code does not mention anything about the consent given by persons between 12 and 18 years of age regarding its validity. The model for consent established in the Nuremberg Code has continued to evolve through the many revisions of the Declaration of Helsinki.

1. Introduction

Origin of the word consent is from the French word 'consente' and Latin word 'consentire' which means co and sentire. Co means 'together' and sentire means 'feel'. Section 13 of Indian contract act 1872 defines that 2 or more persons are said to consent when they agree upon the same thing in the same sense.[1] Consent signifies acceptance by a person of the consequences of an act that is being carried out.[2] There is the Constitutional protection provided by Article 20 (3) and so every person has the right to do what he likes with his body, in order to protect and preserve his health and personal privacy.[3]

In most of the cases which are filed against the doctor, most common allegation is that the consent was not obtained. Obtaining consent will thus be a corner stone of protection against any litigation. Depending upon the circumstances, consent can be implied, expressed or informed.[3] The foundation of the traditional theory of consent to treatment lies in the law of battery, and is found in decisions of US courts as early as 1905. In India, the concept of informed consent or any form of consent, and choice in treatment, was of little relevance.[4] The importance of informed consent has grown over the past few decades with the increasing formalization of medical practice. Due to rapid advances in technology and so in medicine it becomes necessary to subject patients to complicated interventions.

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***Corresponding author:** Dr Atul S Keche, Associate Professor, Department of Forensic Medicine and Toxicology, ACPM Medical College Dhule, Maharashtra, India. 424002 E mail- dratul73keche@rediffmail.com (M): +91 8208072886

complicated interventions. In view of the possible adverse and unintended consequences and uncertainty of the outcomes due to such interventions, it became necessary for patients to understand the issues and grant permission accordingly. [5] It is essential for a RMP to know the principles of consent and the Indian law related to it, so that they are not only able to safeguard themselves against litigations and unnecessary harassment but can act rightfully. [6]

Reasons for obtaining consent

1. To examine, treat or operate on any patient without his consent is assault in law. The patient may claim damages in such cases.
2. If doctor is not able to give relevant information to patient before obtaining consent for particular diagnostic or therapeutic procedure then he may be charged for negligence. [2]

Types of Consent

1. **Implied Consent**- The behaviour and the conduct of a patient indicate the consent and it implies consent to medical examination in a general sense. This type of consent is not expressly asserted but still legally effective. Such consent is limited only for general and common procedures of medical examination. [1,3]
2. **Expressed consent**- It is a must in any examination beyond routine physical examination, which is in distinct and explicit language. It is expressed as verbal or written after the patient is informed about all the aspects of diagnostic and therapeutic procedures like invasive tests, treatments involving risks in clinical medicine and research. [3, 5]
3. **Blanket Consent** - It is a consent taken on a printed form which covers everything that a doctor or hospital might be required to do on a patient. It is not specific for any single procedure. Blanket consent is legally inadequate and is invalid. [1]

Informed Consent

The concept of informed consent is based on the moral and legal principles related to the patient's autonomy and the arguments associated with this. It requires the disclosure of all the relevant information about the illness to the patient and patient is required to take his own decision. [5] It is a duty of a doctor to provide all the necessary and relevant information to a patient to help him to make a rational decision about the proposed treatment, whether to accept or refuse it. The full disclosure of technical issues, which is often used to legally protect doctors, also results in the practice of defensive medicine.[5] Full disclosure of relevant information would enable a patient to make a wise choice. Nondisclosure of such information, if found to be the cause of alleged injury, makes a prima facie case for negligence on part of the doctor.[1, 3] Even professional indemnity insurance may not give cover if a valid consent is not obtained, as it is taken as an intentional assault.[6] All information should be explained in detail and preferably in patient's vernacular language like:

1. Nature of the illness.
2. Nature of the proposed treatment or procedure.
3. Alternative procedure.
4. Risks and benefits involved in both the proposed and alternative procedure.
5. Potential risks of not receiving the treatment.
6. Relative chances of success or failure of both procedures.[3]

The non-disclosure and full disclosure models of communication are unsupportable and paternalistic. The nondisclosure model does not give the patient the opportunity to deal with his/her situation, weakens the physician–patient relationship, excludes the patient from participation in the decision-making process, creates barriers within families, gives rise to false hopes and leads the patient to gather information from unreliable sources. In the full disclosure model, amount of information provided and the time of disclosure of the information are not taken care of. This may not be appropriate for all patients. A balanced disclosure model which is an individual specific and has an ethical element also is recommended for different requirements of the patients. While informed consent is approached from the perspective of the 'right to know', others argue that exercising one's right not to know is also consistent with self-determination and actually constitutes an enhancement of one's autonomy.[5] Prudent patient rule is what a prudent person in the patient's position would have decided, if adequately informed about all the reasonably foreseeable risks.[2] In India the benefit of informed consent never reaches all patients in normal medical practice. Also, a large

section of the population of India is illiterate and poor, and hardly avail the medical services rendered by qualified doctors from a recognized medical system. [4] In India, informed consent has become a serious issue only in the litigation-prone private healthcare sector and it is based on legal considerations and not necessarily on ethical practice.[5]

Exceptions to Informed Consent

1. Emergency
2. Therapeutic privilege- When revealing complications is likely to have a gross impact on psychology of the patient (A close relative/ colleague/ patient's family physician can be informed).[2]
3. When a patient waives his right to informed consent and delegates it to the doctor or closed relative.

Ingredients of a legally valid informed consent

1. It should be obtained from a conscious person, above 12 years of age, and of sound mind. (if the person is less than 12 years of age or insane or unconscious then consent may be given by parent, guardian or close relative and is known as "substitute or proxy consent.")
2. It should be given voluntarily, without any fear, force, fraud, undue duress, coercion, misrepresentation of facts and threats of physical violence, death etc.
3. It should be free, fair, voluntary, clear, direct and personal.
4. It should be informed, expressed and written.
5. It should be taken prior to the procedure (therapeutic or diagnostic).
6. It should be complete and specific.
7. The consent should be given by a competent person- a person who is of sufficient maturity to understand the nature and consequence of the act to which he has given consent.
8. It should be given in the presence of two witnesses and should be signed by them, the doctor and patient (or guardian).[1, 3]

Valid Consent in Indian Law & Consent in special circumstances

1. Consent given for any diagnostic procedure, cannot be considered as consent for the therapeutic treatment. Doctor can perform additional procedure without consent only if it is essential to save the life of a patient.
2. When an operation is made compulsory by law (like vaccination), the law provides the consent.
3. When blood transfusion is required, a specific written consent should be taken, exception being an emergency.
4. In an emergency, the person having lawful guardianship of the child at that time can give consent in absence of parents or guardians (loco parentis). In an emergency, where immediate treatment is needed to save life of a patient, then it can be done even in absence of consent.
5. A written informed consent must be taken afresh prior to every surgical procedure including re-exploration procedure also.
6. Surgical consent is not sufficient to cover anaesthesia care.
7. If doctor is not giving treatment in life-threatening situations due to non-availability of consent, doctor may be held guilty, unless there is a documented refusal to the treatment by the patient. In such cases, informed refusal must be obtained and documented with patient’s signature and properly witnessed.
8. If a patient seeks discharge from hospital against medical advice, this should be recorded, and his signature obtained.
9. Video-recording of the informed consent process may also be done.
10. Consent for illegal procedures like criminal abortion is invalid.
11. In relation to publication, if identity of patient is not disclosed, consent is not needed.
12. Consent in relation to medical research should be obtained as per the Indian Council of Medical Research guidelines. Otherwise it shall be construed as misconduct.[6]
13. Consent of spouse for operation and treatment in the routine course is not necessary.
14. Consent of both the spouse is essential for an operation which involves reproductive and sexual organs.
15. Under Medical Termination of Pregnancy Act 1972, for doing MTP, consent of pregnant woman is sufficient if she is above 18 year of age.
16. It is mandatory to take consent from the next of kin of a deceased person for performing clinico-

pathological autopsy. Consent is not needed for medicolegal autopsy.

17. For cadaveric transplantation, consent from the next of kin, who is in possession of the dead body, is to be taken.[1]
18. An employer (hospital) could be held liable with an employee (doctor) if doctor fails to obtain informed consent and any injury or damage is caused to the patient. (Respondent Superior)
19. There can be a common consent for diagnostic and operative procedures where they are contemplated. There can also be a common consent for a particular surgical procedure and an additional or further procedure that may become necessary during the course of surgery.[4]
20. Nature of illness of patient cannot be disclosed without his consent.
21. Consent is not a total defence in professional negligence cases.[2]

Important Sections of IPC and CrPC related to consent[1]

Sec 87 IPC - A person above 18 years of age can give valid consent to suffer any harm, which may result from an act not intended or not known to cause death or grievous hurt.

Sec 88 IPC - A person can give valid consent to suffer any harm that may result from an act, not intended or not known to cause death, done in good faith and for its benefit.

Sec 89 IPC - A child below 12 years of age and an insane person cannot give valid consent to suffer any harm which may result from an act done in good faith and for its benefit. Consent of guardian or parent is required.

Sec 90 IPC - A consent given by a person under fear of injury, or misunderstanding of a fact is not valid. Consent given by an insane or intoxicated person is invalid.

Sec 92 IPC - Any harm caused to a person in good faith, even without his consent is not an offence.

Sec 93 IPC -Any communication made in good faith for the benefit of a person is not an offence.

Sec 53 CrPC - Examination of accused by medical practitioner at the request of police officer even by using reasonable force.

Sec 54 CrPC - Examination of arrested person by a doctor at the request of the arrested person.

References

1. A.M. Patil, V.T. Abchinmane. Medicolegal aspects of consent in clinical practice. Bombay hospital journal. 2011; 53(2): 203-208.
2. Reddy KSN. Medical law and ethics. The Essentials of Forensic Medicine and Toxicology. 33rd Ed. New Delhi: Jaypee brothers; 2014. P.48- 52.
3. B S Yadwad, H Gouda, B S Yadwad. Consent - Its Medico Legal Aspects. JAPI. 2005; 53 (Update article): 891-4.
4. Karunakaran Mathiharan. Law on consent and confidentiality in India: A need for clarity. The National Medical Journal of India. 2014; 27(1): 39- 42.
5. K.S. Jacob. Informed consent and India. The National Medical Journal of India. 2014; 27(1): 35- 38.
6. Ajay Kumar et al. Consent and the Indian medical practitioner. Indian Journal of Anaesthesia. 2015; 59(11): 695- 700.

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Case Report

Unusual Findings in Traumatic Asphyxia due to Fall of Tree

Patil Sachin S[a], Deokar Ravindra B[a], Dere Rajesh C[b]

[a]Associate Professor, [b]Professor
Department of Forensic Medicine & Toxicology, Seth G S Medical College & KEM Hospital, Mumbai, Maharashtra, India.

Article Info

Key words
Petechial haemorrhages,
Peculiar skin findings,
Perte's Syndrome,
Chest Compression.

Abstract

Traumatic asphyxia also known Perte's syndrome or crush asphyxia is condition cause due to severe compression of chest by some external force resulting in reversal of venous blood flow as well as surge in blood pressure on right side of heart. A 23 years old male, sustained injuries as result of fall of tree amidst heavy rains and stormy weather, over his body while he was selling idli-dosa under it. He was brought to the hospital but was declared brought dead on arrival. Traumatic asphyxia is one of the rare types of asphyxia with compression by fall of the tree on the deceased being least common. Peculiar skin findings in the present case of traumatic asphyxia can be considered as additional finding in cases of fall of tree.

1. Introduction

Traumatic asphyxia also known Perte's syndrome or crush asphyxia is condition cause due to severe compression of chest by some external force resulting in reversal of venous blood flow as well as surge in blood pressure on right side of heart. Venous backflow causes congestion of the face and neck.[01]

Mechanism of traumatic asphyxia is considered be caused by abrupt surge in intrathoracic pressure due to chest compression by external force.[02] This pressure is further transmitted to superior vena cava causing accumulation of blood in blood vessels of head and neck and finally rupture resulting in petechial haemorrhages below skin, mucosa and conjunctiva.[03]

Multiple situations like vehicular accidents, railway accidents, fall of buildings or ceilings, stampede, landslides, machine entrapments etc can cause traumatic asphyxial deaths.[04] Traumatic asphyxia due to fall of tree being uncommon, present case is considered for publication.

Case report

A 23 years old male, sustained injuries as result of fall of tree amidst heavy rains and stormy weather, over his body while he was selling idli-dosa under it. He was brought to the hospital but was declared brought dead on arrival.

On external examination, the said deceased was averagely built and moderately nourished. There was oozing of blood from mouth and nostrils. White froth was seen coming from mouth. Eyes shows sub conjunctival haemorrhages. Gross congestion of head and face present.

Injuries are as follows 1. Contusion present over whole chest, anterior lower part of neck and lateral part of abdomen on right side of size 30 cm x 25 cm, dark reddish along with pale area medial to right nipple and lower part of chest on right side and peeling of skin at places.

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***Corresponding author:** Dr Sachin S Patil, Associate Professor, Department of Forensic Medicine & Toxicology, Seth G S Medical College & KEM Hospital, Mumbai, Maharashtra, India. Pin-400012 Email: sachinpatil@kem.edu (M): +91-+919136667077.

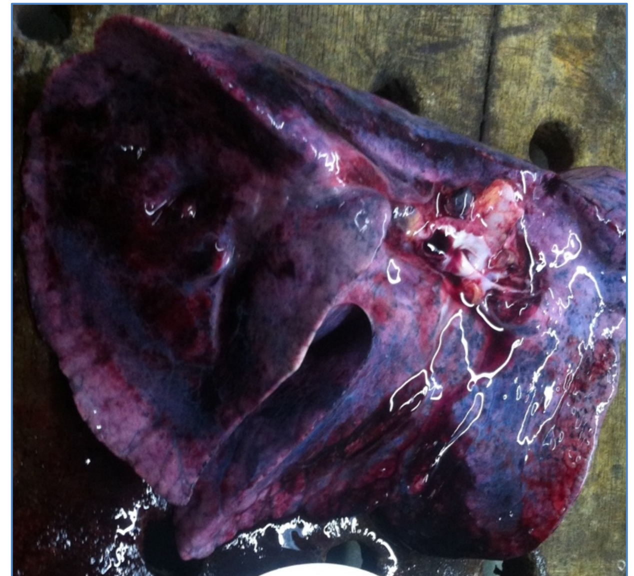
2. Contusion present over upper one third of right arm, 10 cm X 04 cm, reddish in colour. 3. Abrasion present over right side of chest, 06 cm X 1.5 cm, reddish in colour. 4 Abrasion present over the chest in midline, placed obliquely, 19 cm X 04 cm, reddish in colour. 5. Abrasion present over lower part of left side of chest, 7.5 cm X 5.5 cm, reddish in colour. 6. Abrasion present over upper part of left side of chest, 08 cm X 4 cm, reddish in colour. 7. Abrasion present over lower part of right side of chest of size 10 cm X 06 cm, reddish in colour. 8. Multiple linear abrasions present over medial aspect of lower one third of right forearm of size ranging from 5.5 cm X 1.5 cm to 11.5 cm X 1.5 cm, reddish in colour.9. Abrasion present over dorsal aspect of right hand of size 6.5 cm X 1.5 cm, reddish in colour as shown in **photograph no 01**.

Photograph no 01: External injuries over body.

On internal examination, there was evidence of petechial haemorrhages under the scalp all over as shown in **photograph no 02**. Brain is grossly congested and oedematous. There is evidence of haematoma in middle of chest within the chest muscles. Fracture of sternal body in the middle. Fracture of left sided 4th,5th and 6th ribs at costochondral junction. Larynx and trachea contused and blood mixed with mucus present. Contusion present over anterior, inferior and medial surface of right lung 12.5 cm X 4.5 cm, reddish in colour as shown in **photograph no 03**.

Photograph no 02: Petechial haemorrhages under the scalp.

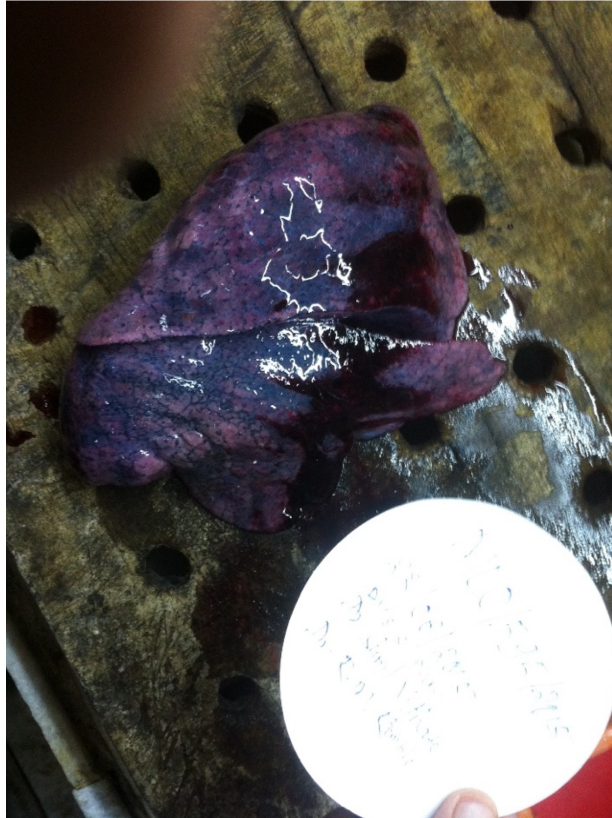
Photograph no 03: Contusion of right lung.



Contusion present over anterior and posterior aspect of both the lobes, 10 cm X 05 cm, reddish in colour as shown in **photograph no 04**. Contusion present over the right atrium of heart of size 1 cm x 0.5 cm, reddish in colour. Petechial

haemorrhages present over both the lungs at places. All the organs were grossly congested. Blood was dark red in fluid state.

Photograph no 04: Left lung showing oblique contusion



Discussion

Traumatic asphyxia is a sporadic syndrome resulting from external pressure on thorax, abdomen or both. Confirmation of traumatic asphyxia relies on typical findings of congestion and swelling of face and neck along with multiple petechial haemorrhages under skin, mucosa and conjunctiva with history of external force compression on chest. In present case these typical findings of traumatic asphyxia were present but in addition there was skin coming out from area of compression over the chest. The skin separation can be due to rupture of blisters formed at the site of compression. These findings can be consistent with the findings in the study done by Pathak H et al [05] which was showing haemorrhagic blisters at the site of impact. Areas of pallor present was also consistent with one case studied by Pathak H et al.[05]

The incidence of traumatic asphyxia is more in males than in females as they are more commonly go out for routine work as compared to females which was found. Manner of death in cases of fall of tree is mainly accidental especially in the stormy weather. Death due to traumatic asphyxia due to fall of tree over the person is not that common to other causes of traumatic asphyxia, most common being compression by motor vehicles. Current case shows oblique contusion over the both lungs and over the heart corresponding to the external injuries suggestive of external compression or impact which is consistent with the history of fall of tree over chest of the deceased. Presence of injuries to the organs does not modify the peculiar findings of asphyxia,[06] but may be suggestive of severity of the injuries.[07]

Conclusion:

Traumatic asphyxia is one of the rare types of asphyxia with compression by fall of the tree on the deceased being least common. Peculiar skin findings in the present case of traumatic asphyxia can be considered as additional finding in cases of fall of tree.

Conflict of interest: None

Ethical approval: Not needed.

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References

1. Marx J, Hockberger R, Walls R. Rosen's: Concepts and clinical practice,8th ed, 2013, Philadelphia, Saunders, pp 435.
2. Williams JS, Minken SL, Adams JT. Traumatic asphyxia--reappraised. Annals of surgery. 1968 Mar;167(3):384.
3. Meller JL, Little AG, Shermeta DW. Thoracic trauma in children. Pediatrics. 1984 Nov 1;74(5):813-9.
4. Conroy C, Stanley C, Eastman AB, Vaughan T, Vilke GM, Hoyt DB, Pacyna S, Smith A. Asphyxia: a rare cause of death for motor vehicle crash occupants. The American journal of forensic medicine and pathology. 2008 Mar 1;29(1):14-8.
5. Pathak H, Borkar J, Dixit P, Shrigiriwar M. Traumatic asphyxial deaths in car crush: Report of 3 autopsy cases. Forensic science international. 2012 Sep 10;221(1-3):21-4.
6. Byard RW, Wick R, Simpson E, Gilbert JD. The pathological features and circumstances of death of lethal crush/traumatic asphyxia in adults—a 25-year study. Forensic science international. 2006 Jun 2;159(2-3):200-5.
7. Skalar DP, Baack B, McFeeley P, Osler T, Marder E, Demarest G. Traumatic asphyxia in New Mexico: a five-year experience. The American journal of emergency medicine. 1988 May 1;6(3):219-23.

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Case Report

Sadistic Genital Mutilation with Homicide- Case Reports

Bhise SS[a*], Wagh Rahul[b], Chikhalkar BG[c]

[a]Associate Professor, [b]Resident, [c]Professor & Head, Department of Forensic Medicine & Toxicology, Grant Government Medical College, Mumbai, Maharashtra, India.400008

Article Info

Key words
Penile amputation,
Genital destruction,
Head Injury,
Strangulation.

Abstract

Women, wealth and wine is considered as one of the most common reasons for crime and also quoted in ancient literature. Sadistic homicides are probably more common than would be expected from reading the literature, where only a few cases are mentioned. Here we present 3 cases of genital injuries in which 2 male and 1 female with brutally cut or mutilated the genital parts. In first case an unusual case of murder was noted. A cold blooded murder of a middle aged male after intoxication of alcohol with strangulation, head injury and penile amputation was noted due to his illicit sexual relationships. In second case Female dead body was found under bridge with Mutilation of genitals which was done by her Husband. In third case a middle aged person was brutally murdered with penile amputation by his girlfriend and her lover. In this paper we can see the possible scenario of psycho-pathology of accused in such cases.

1. Introduction

Women, wealth and wine is considered as one of the most common reasons for crime and also quoted in ancient literature. Sadistic homicides are probably more common than would be expected from reading the literature, where only a few cases are mentioned. In recent decades, many scholars have investigated sexual homicide. However, this area of violent crime has not been well documented and defined in government statistics, which is largely because of difficulties encountered in classification.[1,2] Here we present 3 cases of genital injuries in which 2 male and 1 female with brutally cut or mutilated genital parts.

Case History:

Case no -1 (Figure no. 1) – History: Butler of a local hotel noticed an unusual smell from one of their hotel rooms, source of which turned out to be from the body of a 23 years old male lying in the bed room in a decomposed condition. Police officials of the concerned jurisdiction were informed. Body was sent for post-mortem examination after Panchnama. External examination:

On external examination decomposition changes were noted over the body. Peeling of skin noted over back region, both the upper limbs and face. Bloating of the face, protrusion of tongue with tongue clenched between the teeth, with protrusion of eyes associated with blackish discoloration seen over the face. Bloating of abdomen with marbling over both the flank region and greenish discoloration over both the flank region. Black thread around waist region. Cyanosis of fingernails and toe nails were present.

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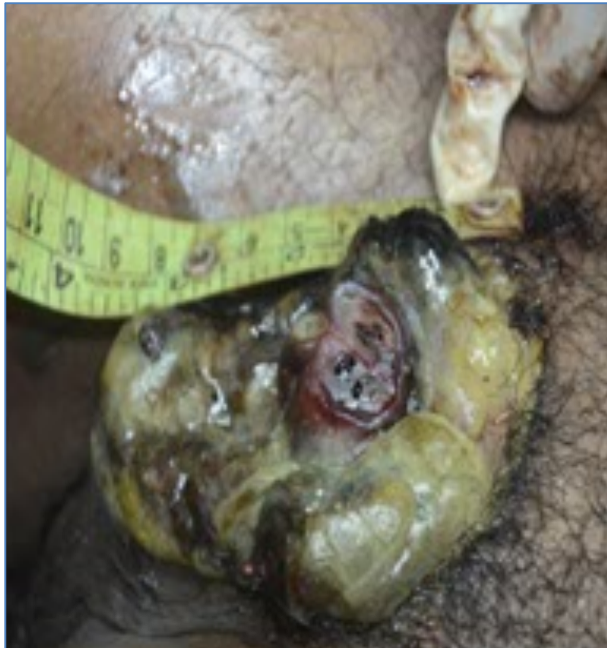
***Corresponding author:** Dr. Sadanand S Bhise, Associate Professor, Department of Forensic Medicine & Toxicology, Grant Government Medical College, Mumbai, Maharashtra, India. Email: sadanand.bhise@gmail.com (M): +91-9503757487.

Thorough examination of head shows following-

1. Three Contused lacerated wounds over right parietal region of size 10cm x 2cm x scalp deep, 8cm x 2cm x scalp deep, and 5cm x 1cm, scalp deep respectively, placed horizontally 3cm apart from each other, from anterior to posterior region with the first injury 6cm above the right ear and 10cm behind the right supraorbital margin with irregular, contused margins with hemorrhagic infiltration into blood, dark red in color.

Fig.1: Penile amputation.



2. Contused lacerated wound over left temporal region 4cm x 2cm x muscle deep with irregular, hemorrhagic margins with hemorrhagic infiltration, dark red color.

External injuries over body:

1. Avulsion laceration over left middle finger 2cm x 1cm, subcutaneous deep with irregular hemorrhagic infiltration in to edges, dark red in color.

2.Two Contusion over left middle finger knuckle region, 2cm x 1cm x subcutaneous deep and left hand dorsum region, 2cm x 1cm x subcutaneous deep blackish in color with hemorrhagic infiltration in to margins associated with edema of surrounding region, confirmed on dissection and by pouring of water.

3. Contused lacerated wound over right chin region, 2cm x 1cm x subcutaneous deep with irregular, haemorrhagic margins.

4. Examination of Ligature mark reveals, a horizontal patterned abrasion, 40cm x 1cm noted over the neck region, horizontally transverse lying below the thyroid region, reddish brown in colour associated with surrounding peeling of skin, completely encircling around the neck, 8cm below right ear, 9cm below left ear, 6cm below chin region and 5cm above sternal notch Parchmentisation noted. On further dissection, underlying neck tissues show haemorrhagic muscles and soft tissues. Intact underlying laryngeal apparatus.

5. Penile amputation injury of size 3cm x 2cm with clean regular margins infiltrated with blood, exposing the underlying corpora cavernosum and corpora spongiosum and scrotal soft tissue injury with hemorrhagic areas and decomposition changes.

Internal findings: 1. Under scalp hematoma, diffusely noted over right parietal region, 15cm x 10cm, dark red in color corresponding to surface injuries over right parietal region.

2. Under scalp hematoma over left temporal region, 6cm x 4cm, dark red in color corresponding to surface injury over left temporal region.

All the Internal organs are Intact and in a state of decomposition.

Stomach-Intact, mucosa-pale with smell of alcohol noted. Identifiable rice material in an undigested form noted.

Cause of death – death due to head injury with strangulation with penile amputation (unnatural) Viscera was kept for chemical analysis which was negative.

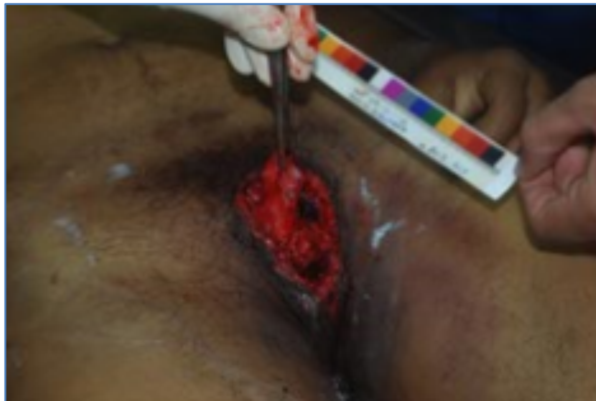
Case no-2: (Figure no – 2)

History: A Factory worker, 38 years, male was brutally murdered by his girlfriend & her Husband at his house in revenge. He was lying in his bedroom on his bed. During post mortem examinations following things were noted.

External Findings: Multiple contusions present over the back and remaining parts of the body. Multiple abrasions of different size were seen all over the body. Lacerated at the region of genitalia showing penile amputation of size 4x3 cm muscle deep with removal of scrotum, involving testis. Corpora cavernosum and corpora spongiosum

and scrotal soft tissues were exposed externally. Margins of injury with base was haemorrhagic.

Fig.2: Penile amputation.



Internal Findings: On internal examination under scalp contusion was noted with subdural and sub-arachnoid haemorrhages seen in cranial cavity. Contusion was seen on lateral surface of left lung and upper surface of liver.

Cause of Death was given as Head injury with penile amputation (Unnatural). Following samples were preserved for chemical analysis. Viscera was kept for chemical analysis which was negative.

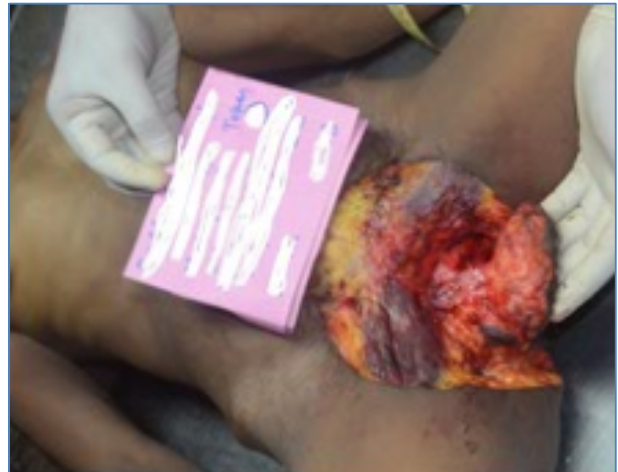
Fig.3: Dupatta around mouth and neck.

Case No - 3 (Figure no – 3 & 4)

History: In this case a woman was brutally murdered by her husband on suspicious doubt that she had relation with other person. As per the history given in Panchanama he had killed her bellow a bridge road side after doing Forceful sexual intercourse. He had destroyed all her genital parts by glass of a broken bottle. Post-Mortem examination findings are as given bellow.

External findings: A tight Dupatta cloth piece was seen tied around her mouth so that she cannot shout. Multiple finger nail mark lenior abrasions were seen around neck showing signs of throttling. Lower lip and area around the mouth was contused due to friction of Dupatta tied around the mouth. Multiple Contusions with abrasions were noted all over the back side of the body including upper and lower extremities.

Fig.4: Female genital mutilation.



In her genital area lacerated wound of size 11x9 cm muscle deep was seen with absence of Labia majora and minora, Mons pubis, clitoris, terminal part of urethra, vestibule and part of perinial area, Inner part of vagina was exposed externally. Avulsion of skin with muscle tissue was seen on lower part of injury directed above downwards.

Internal findings: On internal examination muscles of the neck shows haemorrhagic infiltration. Fracture of hyoid bone was seen. Fracture of 4th, 5th and 6th ribs was seen on right side with laceration of lungs with haemo-thorax. In head underscalp contusion was seen with defuse sub-arrachnoide haemorrhage suggestive of head injury.

Cause of death was given as Asphyxia due to throttling with multiple injuries over the body with genital mutilation (Un-natural). Viscera was kept for chemical analysis which was negative.

Discussion

Manner - As regards to the Manner of death is concerned in all cases, Multiple injuries involving genitals, neck and Head without hesitation cuts and with Defence wounds were suggestive of Homicidal intent of the crime.[3]

Weapon – Multiple attempts were seen in all three cases and hence, multiple weapons were

used by the perpetrators. In first and second case narrow, rough ligature material. Sharp object seems to be used for penile amputation, while a hard, blunt object seems to be used for injuries overhead. In Third case Hand was used for throttling and a broken bottle glass piece was used to destroy the genitals of that female.

The characteristics of the mutilations were diverse. In cases of murder committed in association with sexual deviation, wounding is usually limited to the breasts and sexual organs.[4] Corpse mutilation can also be of a symbolic nature as in cases of mafia murders (revenge punishment) and then it is associated with torturing the victim and with the motive of destruction of identify of victim. Causes of death in above cases are from other injuries and not directly from sex act. The crime is performed by the known person / acquaintance, therefore in order to avoid identification of the perpetrator, the victim was silenced by merciless killing and body was secretly disposed of.

Such homicidal behaviour may be the outcome of variable factors including abnormal psychological attitude like-Sexual jealousy, punishing for being unfaithful, alcohol and drug addiction, depression, erectile dysfunction, education, mental health problems in childhood, sadistic attitude and extremes can lead to lust murder and necrophilia. As per Harris 2004, Jealousy is one of the top three reasons for non-accidental homicides.[5] Sexual jealousies can lead to male aggression and possessiveness is stated by Denisiuk.[6] It is based on a sexual partner's suspected or imminent sexual infidelity. Expression may vary from anger and violent aggression to fear, grief, and depression. Here accused psychology points towards sexual jealousy, infidelity, possessiveness, alcoholic intoxication and depression. As per Webb DA et al, assailants in sexual attacks including sexual homicide, rape and child sexual abuse, often bite their victims as an expression of dominance, rage and animalistic behaviour.[7] According to Michelle et al strangulation was the method of killing in 68.8% of sexual homicide which is seen in our first case.[8]

Conclusion:

Anger and Jealousy are two important weapons which endangers the Human race in the most brutal way possible. In all the above three cases genitalia were destroyed, it could be an outcome of

- Frustration of no-performing partner due to heavy intoxication or otherwise.
- Anger and Jealousy out of suspicion of relationship.
- Psycho-pathic tendency of accused for obtaining sadistic pleasure.
- As an act of depersonalization, which often seen when the murder is disorganized and has a close relation to his victim or offensive mutilation as general act of frustration.

Finally all these cases of illicit sexual relationship throw some light on the cruel aspect of humans and hope it serve as a warning to the society of the possible fatal outcome. Finally, the Forensic pathologist should do their duty meticulously to preserve every piece of evidence and give a scientific opinion to help the law to carry out justice against such monstrous act

References:

1. Adelson, L. (1974) The pathology of homicide. Charles C Thomas, Springfield, P.3-4.
2. Krug, E. (2003) Message of Support: Summary Annual Report 2003. Medical Research Council, South Africa.
3. Global Burden of Armed Violence Report (2011). http: //www.genevadeclaration.org/measurability/glob a1-buden-of·armed-violence/ global-burden-of-armed-violence2011.html
4. Rajs J, Lundstro ¨M M, Broberg M, Lidberg L. Criminal mutilation of the human body in Sweden— thirty-year medico-legal and forensic psychiatric study. J Forensic Sci 1998;43(3): P.563–580
5. Harris CR. The Evolution of Jealousy. American Scientist. 2004; 92: 62-71. 6.
6. Denisiuk, Jennifer S. Evolutionary Versus Social Structural Explanations for Sex Differences in Mate Preferences, Jealousy, and Aggression. Rochester Institute of Technology.2004
7. Webb DA, Pretty IA, Sweet D. Bite marks – A psychological approach, Proceedings of the Amer. Ach of Forensic Science- Reno NV FEB 2000, P:147
8. Michelle L. Stein MA, Louis B. Schlesinger Ph.D., Anthony J. Pinizzotto Ph.D. Necrophilia and Sexual Homicide. J Forensic Sci., March 2010; 55(2):P.443–446.

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Letter to Editor

Forensic Entomology: An Underutilized Weapon in Indian Crime Investigation System

Ashok Najan[a], Vivek Shrivastava[b]

[a]Assistant Professor, [b]Associate Professor
Department of Forensic Medicine & Toxicology, NSCB Medical College, Jabalpur, Madhya Pradesh, India.

Editor Sir, as we know estimation of time since death is not a new exercise for Doctors conducting postmortem examinations. Still the precise calculation of time since death is challenging as the circumstances of death are not always identical. On the basis of factors like body temperature and rigor mortis, time since death can only be correctly estimated for the first 2 to 3 days after death. By calculating the age of immature stages of insects feeding on a corpse and analyzing the necrophagous species present on a cadaver, PMI from the first day to many days can be calculated.[1]

All over the world researchers are developing scientific methods for determination of age of insects[2], identification of insect species[3,4,5], which are of paramount importance in criminal investigation. Though research is taking place in the field of entomology in India, very few are researching it on molecular levels[6,7,8].

Editor Sir, by quoting all these works I want to emphasize the need for taking more research work on molecular level. The identification of species and determination of age by morphological assessment is lengthy process and requires expertise. Not many doctors conducting postmortem examinations are used to indentify species and determine age of these insects with ease. Coupled with continued advanced research and training in the field of Forensic entomology, recommendations to the government for improving laboratory facilities for analyzing the entomological evidence will definitely bring change to the current status of Forensic Entomology in India.

For this to get materialize we are in dire need of trained forensic entomologists who can analyze the entomological samples and extensive training of doctors conducting postmortem examinations in collecting and analyzing these samples. In India there are Institutes which offers masters in Entomology [9]. But there are few takers of these courses as the jobs in this field are scares.

Assistance of forensic entomology as scientific and approved method in administration of justice is not taking place at its true potential due to lack of optimum research, lack of trained entomologists, lack of training of doctors concerned and lack of political commitment.

I hope to improve the situation if all above mentioned stake holders come together and work for the common goal.

References:

1. Hall M, and Amendt J. Forensic entomology–scientific foundations and applications. For Sci Int. 2007; 169: 27-8.
2. Donovan SE, Hall MJR, Turnerand B, Moncrieff CB. Larval Growth Rates of the Blowfly, Calliphora vicina, Over a Range of Temperatures. Med Vet Entomol. 2006;20: 106–14.
3. Wells JD, Sperling FAH. DNA-based identification of forensically important Chrysomyinae (Diptera: Calliphoridae). For Sci Int. 2001;120: 110–5.
4. Wells JD, Pape T, Sperling FAH. DNA-Based Identification and Molecular Systematics of Forensically Important Sarcophagidae (Diptera). J Forensic Sci. 2001;46:1098–1102.

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*__Corresponding author:__ Dr Ashok Najan, Assistant Professor, Department of Forensic Medicine & Toxicology, NSCB Medical College Jabalpur, Madhya Pradesh, India. Pin-400012 Email: ashoknajan@gmail.com, (M): +91-9752212017.

5. Sukontason KL, Piangjai S, Bunchu N, Chaiwong T, Sripakdee D, Boonsriwong W et al. Surface ultrastructure of the puparia of the blow fly, Lucilia cuprina (Diptera: Calliphoridae), and flesh fly, Liosarcophaga dux (Diptera: Sarcophagidae). Parasitol Res. 2006;98:482– 7.
6. Bajpai N, Tewari RR. Mitochondrial DNA sequence-based phylogenetic relationship among flesh flies of the genus Sarcophaga (Sarcophagidae: Diptera). J Genet. 2010;89: 51-4.
7. Sharma M, Singh D, Sharma A. Mitochondrial DNA based identification of forensically important Indian flesh flies (Diptera: Sarcophagidae). For Sci Int.2015;267:1-6
8. Master of Science in Entomology Top Colleges, Syllabus, Scope and Salary [2015].. [Accessed on December 2015] Available from: https://collegedunia.com/courses/master-of-science-msc-entomology