

Introduction

The word 'autopsy' is derived from the Greek words, *Autos* and *Optos*. The word *Autos* means self and *Optos* means seen. An autopsy means seeing with one's eye.

Primarily, the autopsy is of two types

- Medicolegal autopsy
- Clinical autopsy

MEDICOLEGAL AUTOPSY

Medicolegal autopsies are performed in both unnatural and natural circumstances, in which the cause of death is uncertain.

The objectives of the medicolegal autopsy are:

- 1. To know the cause of death
- 2. To determine the manner of death
- 3. To determine the time since death
- 4. To know the type of weapon used
- 5. To determine the identity, if unknown

In India, medical practitioners registered with the medical council are only permitted by law to do autopsies in medicolegal cases at the request of the investigating officer at an authorized place. The consent of family members is not required in a medicolegal autopsy. However, the deceased must be positively identified by family members before the start of a postmortem examination. After the autopsy, the deceased's body is handed over to the relative of the deceased in the presence of the police/investigating officer on whose request the autopsy was conducted.

CLINICAL AUTOPSY

A clinical autopsy is performed by a pathologist after obtaining the consent of the family members or relatives of the deceased. Before beginning a clinical autopsy, it must be ensured that the case is not medicolegal. It is performed at the request of clinical doctors to augment the medical knowledge by determining the pathological process that was occurring in the deceased. The clinical autopsy may be limited to a cavity or a block, while in a medicolegal autopsy, all the cavities are to be examined even if the cause of death may have been obtained from one of the cavities.

Background information is scant in a medicolegal autopsy and may be skewed or nonscientific based on what the investigating police official knows, whereas in a clinical autopsy, comprehensive events of disease and case files created by welleducated professionals are readily available.

In India, medicolegal autopsies are conducted in the majority of cases at the request of the police, which is also known as the Police Inquest. However, in certain crimes like dowry death, custodial death, exhumation cases, etc., the autopsy is conducted on the orders of the Magistrate, also known as Magistrate Inquest.

Inquest Papers Required for Conducting Postmortem Examination

- An application requesting a postmortem examination
- Medicolegal report prepared before death, if any
- Police Form 25/35A, B or C as per need of case
- Statements of public, panch or relatives of the deceased
- Crime scene report, if available
- Death summary, if the deceased has been hospitalized before death and death occurred during treatment
- Death rukka/police information, in case of hospitalized deaths

Preliminaries before Postmortem Examination

Once the dead body is received in the mortuary along with the inquest papers, the entry should be made in the postmortem entry register mentioning the details of the deceased such as name, age, sex, address, and cause of death, along with the details of the police official who brought the dead body for postmortem examination. The date and time of receiving the dead body must be entered in the register. It is advisable to ask the attendants/police official accompanying the dead body to remove any ornaments or valuable items from the body before handing over the body to the mortuary attendants.

Examining the body after death is called a *postmortem*, and it should be done as quickly as feasible. It is more likely that the examination will give relevant information if it is conducted as soon as possible. Postmortem examinations are best done in bright sunlight. Although with the advance in lighting systems, the government in recent times has allowed postmortem examinations to be done at night, in certain cases. The mortuary should be kept under supervision at all times and access to any unauthorized person should be prevented during postmortem or otherwise. In cases of custodial death, the postmortem examination should be recorded on camera.

After completing the autopsy, the dead body should be handed over to the relatives of the deceased in the presence of a police official. The inquest papers duly initialed should be returned to the police along with the postmortem report and any other exhibits depending upon the case.

Second Autopsy/re-postmortem Examination

The goal of an autopsy, however, may not be met or may appear to be inadequately met in many instances. When this occurs, a second autopsy or re-postmortem examination on the same deceased is ordered and performed. The terms 're-

postmortem examination' or 'second autopsy' may be used for clarity. Most second autopsies in India are requested by family members who were not satisfied with the results of the first autopsy.

Executive Magistrates should be the only ones authorized to request an additional autopsy. The second autopsy should be conducted by the board of doctors, preferably forensic medicine specialists. The board of doctors performing a second autopsy should have a detailed report of the previous autopsy beforehand. It may be possible that a second autopsy might not add something to the cause of death; however, it may calm down the unrest or alleviate the confusion of the aggrieved family members.

EXCHANGE OF DEAD BODIES

The exchange of dead bodies in the mortuaries is not an uncommon occurrence in India. This is mostly caused by families' reluctance to touch the bodies due to their personal beliefs and traditions, as well as similar-looking bodies in terms of height, sex, and appearance as well as the lack of literacy among handlers and relatives. There are more possibilities in situations like:

- It is difficult to identify disfigured, burned, and decomposed bodies, and people find it repulsive to look at distorted and decomposed faces in public.
- The situation is upsetting to the next of kin, so they stay away.

An exchange of dead bodies is not only traumatic to the already aggrieved family members, but it also puts the mortuary staff in an awkward situation and gives a bad name to the institute. To avoid the exchange of dead bodies, a body handling policy should be formulated at every centre.

- Identification tags should be placed over the plastic or cloth covering of all bodies, as well as over the chest, wrists, or ankles of hospitalized or brought dead people.
- The relatives of deceased and the accompanying police officers should identify the body before the start of the postmortem examination.
- If the body has to be kept in cold chamber before the postmortem examination, the mortuary attendant or staff must place the body in cold storage with the appropriate tag and identifying number.
- All of the deceased's clothing should remain with the body, and the postmortem report should document all the clothing of the deceased elaborately.
- If the body is sent for radiological examination before postmortem, it should be done in the presence of the investigating officer and the hospital staff.
- The body is brought for postmortem examination by the police official and it should be identified by the relatives of the deceased in the presence of the accompanying police official.
- After postmortem examination, the body should be handed over to the relatives
 of the deceased in the presence of accompanying police officials.
- In case of unidentified bodies, the body has to be kept for a minimum period of 72 hours before the postmortem examination. However, it is advisable to proceed with a postmortem examination and then preserve the body for identification. By this, the chances of losing valuable postmortem findings due to delayed autopsy can be minimized.

- If the body is kept in the mortuary for identification, it should be well documented in the postmortem entry register.
- Mortuary should be always locked during odd hours and the key should be secured with authorized personnel only.
- A logbook for the handling of the key of the mortuary should be maintained.
- No unauthorized personnel should have access to the mortuary at any time.

CUSTODIAL DEATH

Death in custody is considered a matter of violation of human rights. In cases of death during custody, the postmortem examination has to be done as per the guidelines of the National Human Rights Commission.

In all custodial deaths, the postmortem procedure should be videographed. Usually, the police officials arrange for videography of the postmortem examination and therefore the videography records remain in custody of police. However, in exceptional cases where the autopsy surgeon is arranging for videography, the videography record should be sealed after the postmortem examination and should be submitted along with the postmortem report. The postmortem report and the videography record are further submitted to the National Human Rights Commission. The purpose of videography in such cases is:

- The results of the autopsy have been documented in full, with specific attention paid to any signs of injury or violence that would point to custodial torture.
- Videographic evidence can be used to corroborate the results of the postmortem examination (which are documented in the postmortem report) and disprove the possibility of bias or withholding of relevant information.
- To make it easier, if necessary, for an independent reviewer to assess the results of the postmortem examination in the future.

Before conducting a postmortem examination of custodial deaths, the following measures should be observed:

- Before autopsy, the dead body should be subjected to radiological investigation (X-rays/CT scan) if the cause of death is suspected to be a firearm.
- A thorough description of the examination of the clothing should be included in the postmortem examination report by the autopsy doctor.
- The doctor conducting the autopsy should collect and evaluate the clothing found on the body. After examination, the clothing should be preserved and sent to the relevant forensic science laboratory for additional analysis.
- The length and weight of the body should be recorded meticulously.
- A detailed postmortem examination should be done, examining all the cavities and every organ.
- The description of all the organs along with weight and other relevant dimensions should be mentioned in the autopsy report.
- Postmortem examinations should be recorded as follows:
 - The doctor performing the postmortem examination should have his or her voice captured at the time the video is being shot.

- As the doctor performs the postmortem, he should provide a narrative of his initial findings.
- Some video shots should be taken with the subject's clothing on and then after removal of clothing.
- It is vital to record positive as well as crucial negative findings.
- The video record should include all aspects of the body, from head to toe and from front to back.
- All the cavities exposed should also be recorded, even if no positive findings are there.
- If any injury is observed, special focus should be placed on the injury.
- When taking photographs, make sure to include the postmortem number, the date the body was examined, and a measurement scale.
- The postmortem examination should be filmed and photographed by someone trained in forensic photography and videography.
- A high-quality digital camera with at least 10 megapixels and a 10x optical zoom should be used.

Summary with Key Points

In India, medical practitioners registered with the medical council are only permitted by law to do autopsies in medicolegal cases at the request of the investigating officer at an authorized place. The consent of family members is not required in a medicolegal autopsy. After the autopsy, the deceased's body is handed over to the relative of the deceased in the presence of the police/investigating officer on whose request the autopsy was conducted.

Executive Magistrates should be the only ones authorized to request an additional autopsy. The second autopsy should be conducted by the board of doctors, preferably forensic medicine specialists.

Death in custody is considered a matter of violation of human rights. In cases of death during custody, the postmortem examination has to be done as per the guidelines of the National Human Rights Commission. In all custodial deaths, the postmortem procedure should be videographed.

FURTHER READING

- Aggrawal A. APC Textbook of Forensic Medicine and Toxicology. Avichal Publishing Company; 2014. p. 119–150.
- 2. Mathiharan K, Patnaik AK. *Modi's Medical Jurisprudence and Toxicology*. LexisNexis; 2005. p. 357–416.
- **3.** Murty OP, Kohli A, Millo T, Rani M, Verma SK, Sikary AK, Girdhar S, Sharma SK, Banerjee KK, Kumar PS. Uniform Guidelines for Postmortem Work in India: Faculty Development on Standard Operative Procedures (SOP) in Forensic Medicine and Toxicology. *Journal of Forensic Medicine and Toxicology;* 2013. p. 1–38.
- **4.** Reddy KSN, Murty OP. *The Essentials of Forensic Medicine and Toxicology*. New Delhi: Jaypee; 2022. p. 186–190.
- **5.** Valand A, Lanjewar D. External Examination at Autopsy. *In Handbook of Autopsy Practice*. New Delhi: Jaypee; 2017. p. 1–10.