

PROCEDURE OF MEDICOLEGAL AUTOPSY & ITS ANATOMICAL ASPECT

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ABSTRACT

An autopsy, also called as Necropsy or post mortem examination, is the examination of a person's body after death. It is an essential part of investigation to determine the cause of death. Autopsy means (autos=self. Opis=view) to see for oneself. Necropsy (necros=dead, opis=view) is most accurate term for investigative dissection of dead body, but term autopsy is commonly used and is more popular.

Autopsy is of two types

- (1) Medicolegal Autopsy → find cause and manner of unnatural death e.g. murder, suicide, accident etc.
- (2) Hospital Autopsy → To know whether the person is suffering from any disease and if death was caused due to carcinoma, genetic

disorder or some other undiagnosed disease.

Procedure of Autopsy consists of external examination and internal examination. For doing autopsy we have to know about general anatomy of body in detail because any abnormal condition of body we have to analyse with the normal condition or normal anatomy of body.

KEYWORDS: Autopsy, necropsy, postmortem.

INTRODUCTION

Medicolegal Autopsy is a scientific examination of a dead body. It is carried out under the law of state only on the requisition of a legal authority responsible for the investigation of

sudden, suspicious or unnatural death. The legal authority is usually a police officer not below the rank of a sub-inspector or an executive magistrate.

Clinical autopsy is done by a medical practitioner or treating doctor with the consent of relatives to know the diagnosis or to confirm the diagnosis. This is preferably conducted by Forensic expert.

In clinical autopsy, it may be complete or incomplete depending upon the Consent obtained for the part of body. It is not done under legal obligation there for no requisition from police is required. For doing clinical autopsy, consent of relatives is must. Without consent, a doctor cannot proceed for clinical autopsy. Clinical autopsy is preferably conducted with the help of pathologist.

The objectives for medicolegal autopsy are.....

1. To determine cause of death
2. To determine manner of death.
3. To estimate time since death.
4. To collect evidences to identify object causing death and to identify criminal.
5. To retain relevant organ/viscera and Tissue as evidence.

For obtaining accurate results of an autopsy as a purpose of legal evidence. It is important for a doctor to have a deep knowledge of anatomy of human body; otherwise it is Difficult To give a justice to the victim.

In Medicolegal autopsy report is always submitted to investigating police officer or the magistrate but never to relatives.

In medicolegal autopsy, partial or incomplete autopsy is not permitted, consent of relative is not necessary.

In this, evidence of a doctor in the court is required

MATERIAL AND METHOD

Medico legal autopsy is of much importance rather Than Clinical autopsy.

- It should be conducted by Registered medical Practitioner only.
- It should be done only on receiving official order from the competent Authority (Police or magistrate) authorizing to conduct autopsy.
- It should be done at the earliest

- Whenever dead body is sent for autopsy it should be accompanied by a dead body Challan and an inquest report.
- It should be done at authorized centre preferably well equipped mortuary.
- Body should be identified by police accompanying the body.
- No unauthorized person should be permitted to be present at autopsy.
- It should be done in day light, it cannot be appreciated in artificial light
- In case of death occurring in custody, video recording should be done and the film should be send to the chairman National Human right commission New Delhi by doctor himself.
- In exceptional cases, the medical officer may be asked to visit the scene of death where a dead body may be lying. It is usually done when the body is in advanced state decomposition and its transport will be difficult.
- Visit to scene of crime by doctor may provide evidences or clues to the nature and circumstances of crime.

Autopsy Procedure

It consists of external examination and internal examination.

External Examination

It consists of

1. Examination of clothes for any stains, soiling material, foreign material, any cut marks, tears, stab marks, loss of buttons etc.
2. Identity-in case of known body, police constable accompanying the body should identify body. If feasible, relatives can also be asked to identify the body. In unknown bodies, record identification marks like mole, tattoo, scars, deformity, fingerprint etc. The investigating officer may be requested to have photograph and fingerprints of body.
3. Preliminary particulars
 - Like height, weight, nutritional status, built, gross deformities, patterns of hair, colour of hair, any stains, presence of any foreign body, mud, grease, pain etc. should be noted.
 - Rigor mortis-presence or absence of rigor mortis, its distribution should be noted.
 - Postmortem lividity-regarding appearance, fixed, unfixed, site, colour, disintegrating etc. should be noted
 - Presence or absence of sign of decomposition, extent, presence of maggots, larvae, eggs etc should be recorded
 - Features-whether identifiable, distorted, bloated etc. should be noted

- Skin and body surface should be search for any dermatological lesion, disease, any stains, foreign body, mud, grease etc. Dermal lesions may be in form of of pustules, vesicles, any infections, boils, macular lesion, papule, purpura, bleeding spots, edema, cyanosis etc. should be sought for
- Perceive for any odour emitting from body. For example, insecticide like smell, fermentation like, kerosene like, garlicky etc.
- State of natural orifices such as nose, mouth, ear. Anus, vagina, urethra for any desease, injury, foreign body.
- Documentation of injuries-abrasion, contusion, laceration, incised, stab, chop, crush, burn, electrical injury etc. should be look for and properly recorded. The injuries should be described in a sequential manner for example starting from head to toe. The injuries should be noted in accordance with size, site, dimensions, and orientation to the axis of body and relations from the fixed anatomical landmarks. The shape should be descived whenever possible. The state of margins, andle and depth of wound along with direction should be recorded with reference to stab wounds.
- External genitals-examine to know presence of any disease, injury, foreign body, stains, secretions, and any signs of sexual insult.

Internal Examination

Internal examination includes dissection and examination of

1. Cranial cavity
2. Thoracic cavity
3. Abdominal cavity
4. Dissection of spinal cord (when indicated)
5. Dissection of extremities (when indicated)

The question may arise, which cavity should be opend first? The answer is that depending on the requirement and convenience of autopsy surgeon, any cavity can be opend first. However, in fetus, usually abdominal cavity is opened first to record the position of diaphragm.

Incision

Following are the various types of incisions used for autopsy.

A) For Head

Coronal incision-is more preferable and easy type of incision. The incision begins from behind the ear and extends upwards on either side to meet coronally on head.

B) For Trunk

Following are the various types of incisions described. Depending on the need, an autopsy surgeon can use the incision.

1. I-shape incision-a straight incision is made from the chin (symphysis mentis) to pubis (symphysis pubis) It is commonest method used.
2. Y-shaped incision – it begins at a point close to acromial process and extends down below the breasts and then medially across the xipiod process. A similar incision is made at opposite side of the body and from xipiod process the incision is carried downwards in a straight line to the pubis.
3. Modified Y-shaped incision – a straight incision from sterna notch to pubis is made. Now this incision is extended from suprasternal notch to the mid-point of clavicle and then upwards towards the neck behind ear. Similar incision is made on opposite side.

Autopsy Technique

Following are the autopsy techniques

1. Technique of Virchow

- In this technique, the organs are removed one by one
- It is widely practiced and more popular method
- It is considered as more convenient

2. Technique of Rokitansky

In this technique, there is partial in situ dissection of organs with en-bloc removal.

3. Technique of Ghon

In this technique, thoracic, cervical, abdominal and urogenital system organs are removed separately as organ blocks.

4. Technique to Letuile

- In this technique, cervical, thoracic, abdominal and pelvic organs are removed en-masse and subsequently dissected into organ blocks.
- This technique is considered as best technique,

Cranial Cavity

- After coronal incision, scalp is reflected.
- The skullcap is removed by sawing through the bones. The line of cutting the bone extends horizontally on both sides from about the center of forehead to the base of mastoid process to external occipital protuberance backward.
- The skull vault is examined for any fracture or hematoma
- Dura is examined for any collection of blood, any injury, any disease.
- The superior sagittal sinus is examined for presence of thrombosis.
- Brain is examined in situ and then dissected out. Note for any injury, disease, or vascular malformation, or aneurysm. The ventricular system should be examined.

Chest and Abdominal Cavity

- The chest and abdominal cavity should be examined for presence of any injury, disease, pathological lesion or collection of blood/fluid.
- The organs should be examined for presence of any injury, disease, and pathological lesion. The weight of organs, the size, shape, surface, consistency, cut surface, colour should be noted.

Opening of Spinal Cord

Spine is not routinely opened except for indications.

Following are the indications

1. Injury
2. Disease affecting spinal cord
3. Poisoning – strychnine.

Methods of opening spinal cord

1. Posterior approach – Midline skin incision given over back over spinous process and bilateral laminectomies done with use of saw.
2. Anterior approach.

Preservation of Viscera and Other Articles

In suspected cases of poisoning, viscera has to be preserved. Similarly in violent crimes some evidences has to be preserved. Refer chapter 33 for medicolegal aspects of poisoning and for preservation of viscera and other articles.

CONCLUSION

For obtaining accurate results of an autopsy as a purpose of legal evidence. It is important for a doctor to have a deep knowledge of anatomy of human body; otherwise it is Difficult To give a justice to the victim. For doing autopsy we have to know about general anatomy of body in detail because any abnormal condition of body we have to analyses with the normal condition or normal anatomy of body. Medico legal Autopsy is a scientific examination of a dead body. It is carried out under the law of state only on the requisition of a legal authority responsible for the investigation of sudden, suspicious or unnatural death. The legal authority is usually a police officer not below the rank of a sub-inspector or an executive magistrate.

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