Post-mortem Examination

A medical examination of the dead body conducted in accordance with the laws of the state
AUTOPSY

Types:
CLINICAL AUTOPSY

• Performed with the consent of the deceased person’s relative

• Purpose

• This type of autopsy should not be held to determine the nature of fatal cause
MEDICO-LEGAL AUTOPSY

- suspicious
- Obscure
- unnatural
- or frank criminal deaths
Psychological Autopsy

- In some situations it may be impossible to assess the manner of death.

- The investigators must consider the psychological state of the individual prior to death besides the wound pattern analysis.

- This psychological assessment after death (psychological autopsy) may be of utmost importance in assessing the manner of death.
Objectives of PME

- Identification of victims
- Identification of accused/criminal
- Identification of suspect weapon
- Document cause and nature of injuries
- Determine the cause of death
- Determine time since death
Autopsy suite

- Autopsy room
- Storage area for corpse
  - Chemicals/disinfectant
  - Instruments
- Office for staff
- Medical record room
- Waiting area for public
Requirement for autopsy room

- Light
- Ventilation
- Arrangement for sterilization
- Refrigeration
- Dissection

• Staff should wear proper autopsy suits including rubber boots
- day light lamp
- Ice blue fluorescent electric tubes
- 90 lumens of light at autopsy table

- Washing area
- Ventilation
  - Reverse /enter from ceiling and leave through vents in walls near floor
- Refrigeration units
HAZARDS IN AUTOPSY ROOM
PRE-EXAMINATION FORMALITIES FOR AUTOPSY

- Copies of inquest report
- FIR
- In hospital deaths, a copy of case sheet of the deceased person
Documentation

- **Mortuary register**
  - General register
    - Serial number
    - Date and time of receipt of body
    - Name and identity number of deceased
    - Name and number of constable and police station
    - Date and delivery of dead body
  - Autopsy register
    - Yearly number
    - Autopsy number
    - Name /date /time of autopsy
    - Detail about specimen collected and sent for autopsy
    - Provisional and final conclusion

- **Property book**
IDENTIFICATION

- Confirmed by police officer
- Identification by relatives
- Unidentified bodies
Autopsy report

• Autopsy protocol
  is a signed document containing original notes made on an autopsy.

• The autopsy protocol is the written record of the objective observations made during the examinations conducted by the doctor.
- **narrative** (story form)
- **numerical** (on numbered proforma).
Opinion

- *cause and manner of death*,
- autopsy findings
- laboratory investigations
- Crime scene where the body was found
- circumstances surrounding the death
- record of recent hospitalization
- and other medical history etc.
• If the manner of the death (i.e. homicide, suicide, accident, or natural disease) cannot be ascertained on the postmortem examination.

• It should *decided by the investigating agency (police etc) after having taken into account all the relevant evidence.*
OBSCURE AUTOPSY

rate is 25-50%

• In some cases it is impossible to ascertained cause of death at autopsy
NEGATIVE AUTOPSY

- Cause of death may remain unknown after detailed examination
- Detailed laboratory examination of different material/samples from the body
CAUSES OF NEGATIVE AUTOPSY

• Autopsy without adequate history
• Lack of training
• Lapses in examination
• Electrocution / air embolism
• Laboratory faulty / negative results
• Trauma
• Trauma at concealed site
• Disease
Negative autopsy

- Natural diseases
- Biochemical disturbances
- Endocrine dysfunction
- Concealed trauma
- Poisoning
- Miscellaneous
Stages of a Forensic PME

1  Examination at the scene of death
2  Examination in the PM Room
3  Revisiting the scene of Death
Examination at the Scene of Death

1. Position of dead body
2. Temperature recording
3. Examination of clothing / covering
4. Examination of locus
5. Photographing / sketching
Techniques of post-mortem examination

1  Rokitansky’s –
   examination and dissection *in situ*
2  Gohn’s -
   *en bloc* removal and examination outside the body
3  Virchow’s –
   organ by organ on the body
4  Le Tulle’s –
   *en masse* removal of organs for later detailed examination
Post-mortem incisions

1. Primary
   to open the trunk and head
2. Secondary
   for removal of organs
3. Tertiary
   to dissect organs
4. Quaternary
   additional incisions
I-, Y- and modified Y-shaped incision
Dissection of cranial cavity

- Dissecting cranial cavity includes following steps:
  - Scalp incision
  - Removing the skull cap
  - Opening the duramater
  - Removing the brain
  - Dissection of brain and its parts.
Proper examination of each of the following is done:

- Scalp—any injuries
- Skull—any fractures
- Membranes—haemorrhages, pus, etc.
- Brain—pressure manifestations, injuries, congenital anomalies, abscess, tumors, etc.
Collection of specimen

- Specimen for crime detection laboratory
- Specimen for serological or biological examination
- Specimen for histopathological examination
- Specimen for toxicological examination