

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
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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

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Objectives of PME

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 ascertain 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

Negative autopsy

- Natural diseases
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- Biochemical disturbances
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- Endocrine dysfunction
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- Concealed trauma
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- Poisoning
- Miscellaneous
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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**

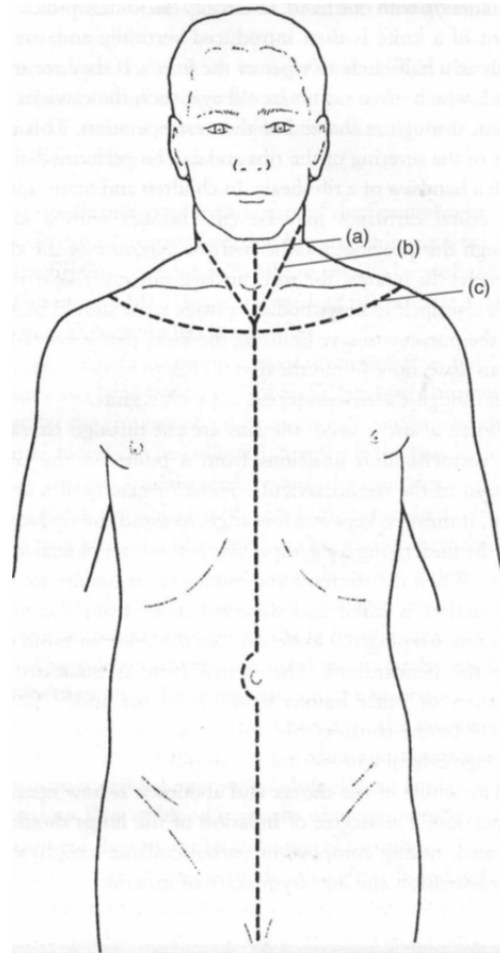
Techniques of post-mortem examination

- 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