

BASIC PATHOLOGY DEFINITIONS



Pathology → the study of disease.

Pathology is a medical specialty studying disease processes, how they develop and what they are caused by and the application of this knowledge to the diagnosis of disease.

Necropsy → a postmortem examination of a body after death or autopsy.

At its core, it is the systematic dissection and examination of an animal carcass to search for abnormal anatomical changes (lesions) in the tissues.

Necropsy may be defined as the systematic examination of an animal carcass aimed to search for lesions.



NECROPSY

Necropsy, necroscopy
(Gr.): examination of a
body after death

Necro= dead body

Opsis= a sight, view



AUTOPSY

Autopsy (Gr.): to see
with one's own eyes

Auto=self, one's own

Opsis= a sight, view



OBDUCTION

Obduction → opening of the dead.

It is **mostly** used for the **FORENSIC** pathology.



DISSECTION

Section → **mostly** used for the, a slice of tissue in **anatomy**.

Dissection is the dismembering of the body of a deceased animal or plant to study its **anatomical** structure.



BIOPSY

Biopsy → an examination of tissue removed from a living body to discover the presence, cause, or extent of a disease.

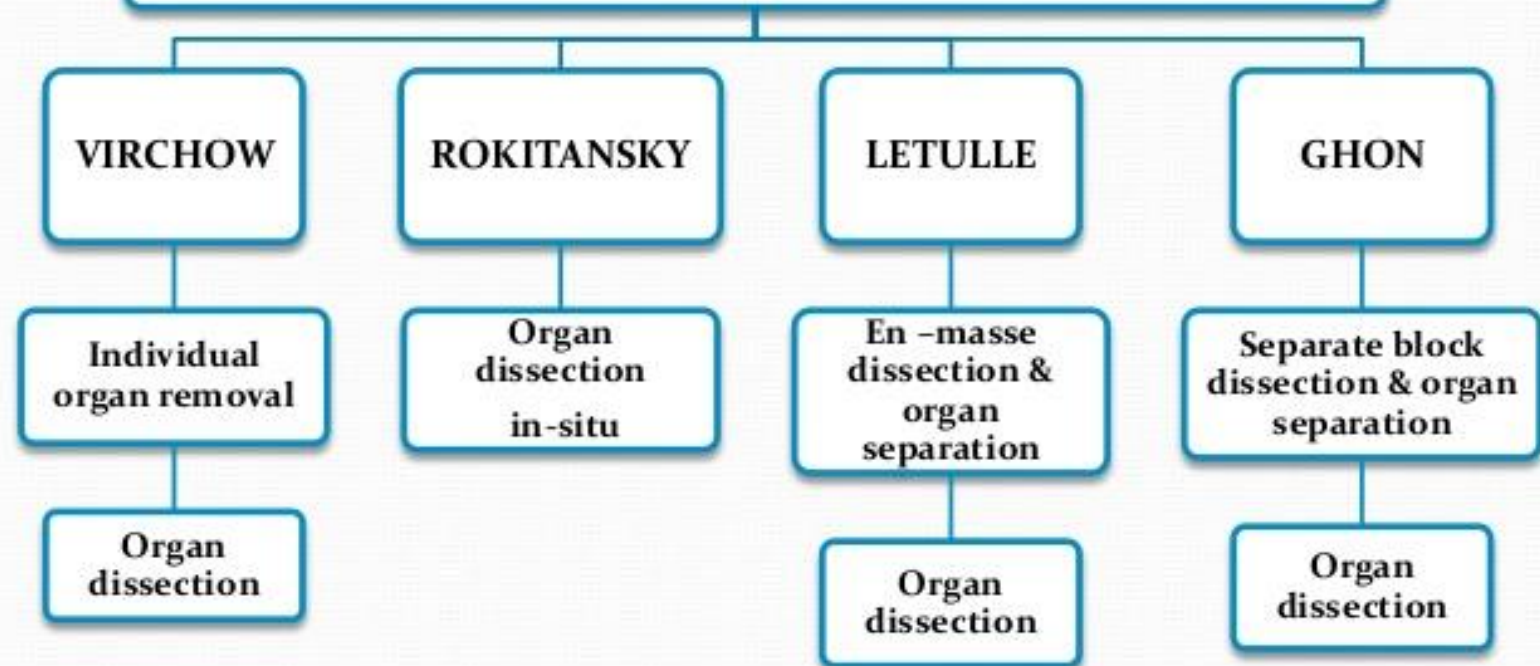
Biopsy (Gr.): view of the living" or "appearance of life.

Bio=living

Opsis= a sight, view



METHODS OF DISSECTION OF INTERNAL ORGANS



Rokitansky method

“*Systematic Autopsy Method*”

Rokitansky **method** is an in-situ examination of viscera with removal of notable organs.

Freiherr Karl
von Rokitansky
(1804-1878)

ROKITANSKY'S METHOD

- Advocated by Carl Rokitansky, German pathologist (1804-1878)
- In situ dissection in part, combined with en bloc removal.
- Advantages
 - in infected bodies (HIV, Hepatitis-B),
 - considered good in children

Disadvantage: difficult to perform

Virchow

“Methodic Autopsy”

Virchow method is
an organ by organ
removal.

Rudolph VIRCHOW
(1821-1902)

VIRCHOW'S METHOD

- Advocated by Rudolf Virchow (Father of Pathology) German pathologist (1821-1902)
- Organs are removed separately one by one and studied individually.
- Cranial cavity → Thoracic cavity → Cervical region → Abdominal cavity
 - Adv: Quick & suitable for beginners
- Disadv: Causes loss of continuity
 - Difficult to evaluate inter-relationship b/w organs

Each POSTMORTAL (MACROSCOPIC) FINDING IS NOT PATHOLOGIC !!!

When the morphological finding is mentioned, as *macroscopic* :

- **Pathologic** (Tumor, necrosis, degeneration, inflammation etc),
- **Postmortal changes** (Rigor mortis, Algor mortis, Livor mortis, Pseudomelanosis, imbibition etc.),
- **Physiologic (normal) changes**
 - **Uterine mucosal changes** in appearance, texture and contents - this is part of the normal cyclical activity of the uterus following pregnancy and parturition. If the animal has recently given birth, pink- colored sludge-like material with no offensive odor may be seen contained in the uterus.
 - **Atrophy of the prostate** in male animals after castration
 - **Pallor of the liver in pregnant and lactating animals**, and this is particularly seen in ruminants.



But;

- ❑ Disease diagnosis may be different than death diagnosis.
- ❑ Clinical and necropsy findings do not always match.
- ❑ The cause of the disease becomes clearer in necropsy.



Why do we perform the necropsy??




1- *The main purpose of necropsy* is to determine the cause of death and disease.

This is particularly important in veterinary medicine for epidemic diseases.

2- To determine the accuracy of clinical diagnosis, to evaluate the effect and success of treatment → Necropsy results can provide feedback on applied therapies, and confirm or deny clinical assumptions and diagnoses.

3- To check the structure and course (pathogenesis) of the disease → Necropsy can provide a wealth of information, not only about the animal being necropsied, but about the cause, progression, and possible outcome of diseases in other patients.



4-To evaluate the results of scientific research,

5-To report to the insurance if the animal has died from the disease covered by the insurance,

6-To report to the court in forensic cases.

