

Unit 1: Introduction to General Histopathology

Dr Fred Maate

- Definition of pathology
- Branches of pathology
- Aspects of Disease
 - Cause (aetiology).
 - Mechanism of development (pathogenesis).
 - Structural alterations (morphology).
 - Functional consequences of the above as observed clinically.
- How disease is studied in histopathology
 - Postmortem
 - cytology
 - histology
 - Request form
 - Multidisciplinary team (MDTs)
- Infection prevention
- Ethical aspects in pathology practice

Definition of pathology

- Pathos=suffering
- Logos=study

Branches of pathology

- Histopathology/anatomical pathology
- Forensic pathology
- Clinical pathology
 - Microbiology/mycology, virology, parasitology
- Chemical pathology
- Molecular pathology

Aspects of disease

- Etiology
- Pathogenesis
- Morphologic changes
- Functional Derangements and Clinical Manifestations

Etiology or cause

- **Genetic or acquired**
 - **genetic** (e.g., inherited mutations and disease-associated gene variants, or polymorphisms) and
 - **acquired** (e.g., infectious, nutritional, chemical, physical)
- multifactorial

Pathogenesis

- the sequence of **cellular, biochemical, and molecular** events that follow the exposure of cells or tissues to an injurious agent.

Morphologic Changes

- the structural alterations in cells or tissues that are either characteristic of a disease or diagnostic of an etiologic process.

Functional Derangements and Clinical Manifestations

- clinical manifestations (symptoms and signs) of disease
- progress (clinical course and outcome).

How disease is studied in histopathology

- Postmortem
- cytology
- histology
- Request form
- Multidisciplinary team (MDTs)

Infection prevention

- Universal precautions
- Biosafety
- Containment
- PPE

Ethical aspects in pathology practice

- Anatomical and clinical pathology
- Forensic pathology

- End