
Introduction

Pathology is the **bridge** between the basic science and clinical medicine.

The objectives of general pathology study is to provide the third year medical student with adequate general pathological knowledge and skills essential to recognize common pathologic process related to conditions and diseases affecting body organs. It helps the student to understand the causes (**Etiology**) of disease, the mechanisms of its development (**pathogenesis**) and the associated changes of structure (**morphologic features**) to be able with other discipline to **determine the most likely diagnosis** of the disease of the patient.

Objectives

- Applying adequate, recognizable and applicable knowledge for common pathologic conditions and diseases affecting body organs.
- Giving the student ability to identify and describe gross and microscopic pathological structural changes.
- Integration of pathological findings with clinical knowledge to determine the most likely diagnosis of the disease.

No. of weeks	مقرر امراض عام نظري ١		مقرر امراض عام عملي متزامن ١	
	الساعات النظرية ٤٥		الساعات العملية ١٥ ساعة	
	Theory Lecture Topics	Hours	Practical Session Topics	Hours
1 st .week	<ol style="list-style-type: none"> 1. The Cell as a Unit of Health and Disease. The Genome 2. Cellular Housekeeping, Cellular Metabolism and Mitochondrial Function. 3. Cellular Activation. Growth Factors and Receptors, Extracellular Matrix, Maintaining Cell Populations 	2 hours	Types of degeneration Types of necrosis Slides/discussion	2 hour
2 nd .week	<ol style="list-style-type: none"> 1. Introduction , Cellular Responses to Stress and Noxious Stimuli Sequence of Events in Cell Injury and Cell Death. 2. Reversible & irreversible Cell Injury. Mechanisms of Cell Injury and Cell Death Hypoxia and Ischemia, Ischemia-Reperfusion Injury. 3. Oxidative Stress cell Injury caused by Toxins, Endoplasmic Reticulum Stress DNA Damage Inflammation. 	2 hours	Apoptosis Slides/discussion	2 hour
3 rd .week	<ol style="list-style-type: none"> 1. Cellular Adaptations to Stress Hypertrophy Hyperplasia Atrophy, Metaplasia. 2. Intracellular accumulations, Pathologic Calcification. 3. Cellular Aging. 	3 hours	Adaptation Atrophy, Hypertrophy, Hyperplasia.	2 hour
4 th .week	<ol style="list-style-type: none"> 1. Inflammation, Acute Inflammation, Reactions of Blood Vessels in Acute Inflammation, Leukocyte Recruitment to Sites of Inflammation, phagocytosis and 	3 hours	Acute inflammation- slides/discussion	2 hour

	<p>Clearance of the Offending Agent.</p> <p>2. Mediators of Inflammation Vasoactive Amines: Histamine and Serotonin Arachidonic Acid Metabolites Cytokines and Chemokines Complement System Other Mediators of Inflammation.</p> <p>3. Morphologic Patterns of Acute Inflammation Serous Inflammation Fibrinous Inflammation Purulent (Suppurative) Inflammation, Abscess Ulcers.</p>			
5 th .week	<p>1. Outcomes Of Acute Inflammation</p> <p>2. Chronic inflammation, Causes of Chronic Inflammation, Morphologic Features, Cells and.</p> <p>3. Mediators of Chronic Inflammation, Systemic Effects of Inflammation.</p>	3 hours	Acute inflammation- slides/discussion	2 hour
6 th .week	<p>1. Tissue Repair and Tissue Regeneration, Repair by Scarring, Steps in Scar, Formation.</p> <p>2. Factors That Impair Tissue Repair, Clinical Examples of Abnormal Wound Healing and Scarring.</p> <p>3. Wound healing.</p>	3 hours	Peptic ulcer chronic inflammation - slides/discussion. Skin wound : Tissue repair- slides/discussion	2 hour
7 th .week	<p>1. Hemorrhage, Hemostasis and Thrombosis, Embolism, Infarction, Shock.</p> <p>2. Hyperemia And Congestion, edema, Sodium and Water Retention, hemorrhage.</p> <p>3. Thrombosis Disseminated Intravascular Coagulation, (DIC) Embolism.</p>	3 hours	Thrombosis, Embolisms. Pulmonary edema - slides/discussion. Thrombosis Coronary artery slides/discussion	2 hour

8 th .week	<ol style="list-style-type: none"> 1. Neoplasia: Classification of neoplastic lesions, Characteristic of malignant and benign tumor, Nomenclature of the Hallmarks of cancer. 2. Genetic lesions In Cancer, micrnas and Cancer. 3. Epigenetic Modifications and Cancer. 	3 hours	Squamous cell carcinoma, slides. Adenocarcinoma, slides.	2 hour
9 th .week	<ol style="list-style-type: none"> 1. Carcinogenesis: a multistep process. 2. Etiology of Cancer: Carcinogenic Agents, Effects of Tumor on Host. Grading and Staging of Cancer, Laboratory Diagnosis of Cancer 	3 hours	Demonstration and animation, carcinogenesis.	2 hour
10 th .week	<ol style="list-style-type: none"> 1. Genetic Diseases, nature of Genetic Abnormalities, Mendelian. 2. Disorders: Diseases Caused by Single-Gene Defects, Complex Multigenic Disorders, Cytogenetic Disorders, Single-Gene Disorders With Atypical Patterns of Inheritance. 3. Pediatric genetic Diseases, Necrotizing Enterocolitis, Sudden Infant Death Syndrome, Fetal Hydrops, Tumors and Tumorlike Lesions of Infancy and Childhood. Molecular Diagnosis of Mendelian and Complex Disorders 	3 hours	Multiple different slides, genetic diseases. Slides.	2 hour
11 th .week	<ol style="list-style-type: none"> 1. Nutritional Diseases: Health Effects of Climate Chang, Toxicity of Chemical and Physical Agents, Environmental Pollution 2. Effects of Tobacco, Effects of 	3 hours	Nutritional diseases, slides/discussion	2 hour

	<p>Alcohol.</p> <p>3. Injury by Therapeutic Drugs and Drugs of Abuse, Injury by Physical Agents. Nutritional Diseases.</p>			
12 th .week	<p>1. General Pathology of Infectious Diseases, General Principles of Microbial Pathogenesis, Immune Evasion by Microbes.</p> <p>2. Spectrum of Inflammatory Responses to Infection.</p> <p>3. How Microorganisms Cause Disease Immune Evasion by Microbes.</p>	3 hours	Pneumonia, slides and discussion, Different slides in tissue infections.	2 hour
13 th .week	<p>1. Pediatric Diseases, Congenital Anomalies Etiology Perinatal Infections.</p> <p>2. Prematurity and Fetal Growth Restriction Respiratory Distress Syndrome of the Newborn.</p> <p>3. Tumors and tumor like lesions of infancy and childhood</p>	3 hours	Respiratory distress syndrome, lung slides. Wilms tumor, retinoblastoma.	2 hour
14 th .week	<p>1. Diseases of the Immune, System acquired immunodeficiency syndrome.</p> <p>2. Autoimmune diseases.</p> <p>3. Rejection of transplants.</p>	3 hours	Hashimoto's thyroiditis, transplant rejection, kidney slides with discussion.	2 hour
15 th .week	<p>1. Types of hypersensitivity, amyloidosis, Overview of lymphocyte activation.</p> <p>2. Adaptive immune responses.</p> <p>3. Hypersensitivity: Immunologically Mediated Tissue Injury, autoimmune Diseases.</p>		Asthma slides, Eczema skin slides and discussion.	

رئيس فرع الأمراض والطب العدلي
ا.م.د. حيدر عبد الرضا الخفاجي

مقرر فرع الأمراض والطب العدلي
ا.م.د. سرى سلمان عجام