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| Course No. | : | PATH 210 |
| Course Title | : | General Pathology |
| Credit Hours | : | 3 CHR |
| Credit Units | : | |
| Level | : | 2nd Year |
| Actual Credit Hours | : | 3 |
| Pre-requisite Course | : | |

Course Description:

The course is mainly General Pathology which deals with the basic concept of the various disease processes relevant for medical dental students. Topics and lecture titles include:

TOPICS AND LECTURE TITLES

Lecture 1 : **Introduction to the study of pathology:**

- * Definition and scope of pathology.
- * Subdivisions of pathology.
- * Techniques of pathology.
- * Characteristics that apply to the study of disease.
- * Diagnostic pathology: biopsies-cytology- role of autopsies.

Inflammation, repair and regenerations (6 lectures).

Lecture One : Definition and aetiology of inflammation.
Manifestations of inflammation.

Lecture Two : Cells involved in inflammation: neutrophils, basophils, eosinophils, macrophages and lymphocytes.

- Lecture Three** : Inflammatory response and chemical mediators of inflammation.
- Lecture Four** : Types of inflammation (acute and chronic).
- Lecture Five** : Osteomyelitis: aetiology - pathological features - clinical features and laboratory investigations.
- Lecture Six** : Wound healing and repair.
Fracture healing.

Cell injury.

- Lectures 1 and 2** : Reversible cell injury.
- Intracellular storage disorders: fat, glycogen, iron lipofuscin, melanin and exogenous pigments (anthracosis).
- Irreversible cell injury: morphology and types of necrosis - apoptosis.
- Cell injury caused by oxygen radicals.
- Calcification: dystrophic and metastatic.

Environmental and nutritional pathology (3 lectures).

- Lectures 1, 2 and 3** : Smoking and its adverse effects.
- Radiation injury.
- Nutritional disorders: obesity, marasmus, Kwashiorkor, vitamin deficiencies: vit. A, riboflavin, and vitamin C (ascorbic acid).

NOTE: Introduction, cell injury, environmental and inflammation should be given during first semester.

Haemodynamic and circulatory disorders (3 lectures).

- Lecture I** : Haemorrhage, thrombosis and embolism.
- Lecture II** : Ischaemia, infarction and oedema.
- Lecture III** : Shock: pathogenesis and pathological features.

Granulomatous diseases (2 lectures).

- Lecture I** : Definition of granuloma.
Formation of granulomas and causes of granulomatous inflammation.
Tuberculosis (primary, post-primary and systemic).
- Lecture II** : Actinomycosis.

Disorders of growth (2 lectures).

- Lectures 1 and 2** : Definitions, pathological and clinical features of: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia and carcinoma in situ.

Neoplasia (5 lectures).

- Lecture 1** : Definition, classification and characteristics of benign and malignant tumours.
- Lectures 2 and 3** : Histological diagnosis of malignancy: anaplasia, cellular atypia, mitotic activity- invasion and metastasis.
Epithelial and non-epithelial tumours - teratomas and hamartomas.
- Lecture 4** : Chemical and viral carcinogenesis.
- Lecture 5** : Human tumour oncogenes.
Tumour suppressor genes (retinoblastoma (Rb) gene and P53 gene).

HISTOPATHOLOGY PRACTICALS AND SLIDE NUMBER

Inflammation, repair and regeneration.

1. Fibrinous pericarditis.
2. Acute suppurative appendicitis.
3. Foreign body reaction (pilonidal sinus).
4. Granulation tissue.

Cell injury.

5. Fatty change of the liver.
6. Dystrophic calcification.

Haemodynamic and circulatory disorders.

7. Organizing thrombus.
8. Recent myocardial infarction.

Granulomas.

9. Tuberculous lymphadenitis.
10. Miliary tuberculosis of the lung

Hyperplasia.

11. Cystic hyperplasia of the endometrium.
12. Cystic hyperplasia of the breast.

Benign tumors.

13. Intradermal naevus.
14. Leiomyoma.
15. Chondroma.
16. Hemangioma.
17. Fibroadenoma of the breast.

Malignant tumors.

18. Basal cell carcinoma of the skin.
19. Squamous cell carcinoma of the skin.
20. Adenocarcinoma of the large intestine.
21. Mucoic carcinoma of the large intestine.
22. Fibrosarcoma.

NOTE: Other slides of similar conditions may be used for examination.

Course Objective:

Specific course objectives

By the end of the course, the medical dental student is expected to:

1. Learn the basic principles of disease processes (General Pathology) and to apply these principles to the study of particular diseases in various tissues, organs and systems of the body (Systemic Pathology)
2. Correlate the pathological changes with the clinical picture.
3. Observe and analyse pathology with clinical disciplines and microscopic levels.
4. Appreciate the role of pathology – whether applied or experimental – in medical research.

Course Requirements:

Evaluation of the Course:

Students will have mid-course exam made up of written paper. At the end of the course students will have practical and written exam.

References:

Basic Pathology By:
Kumar, Corton, Robbins 7th Edition
Published by W.B. Saunder Company

Agreement from the College Board Meeting:

College Board Meeting # _____

Date:

Dr. Abdulmalik Al-Sheikh

Name & Signature
Department chairman

Name & Signature
Dean, College of Dentistry

