

Pathology, Microbiology and parasitology

Syllabus for the post of Associate professor

(a). General Pathology :

Cell injury and cellular adaptation:Causes and mechanism of cell injury,cellular swelling,Hyaline change,Mucoid change,Fatty change,Necrosis,Gangrene,Dystrophic calcification,Metastatic calcification

Atrophy,Hypertrophy,Hyperplasia,Metaplasia,Dysplasia

Inflammation and Repair(Healing)

Haemodynamic

disorders:Oedema,Hyperaemia,Haemorrhage,Shock,Thrombosis,Embolism,Ischaemia,Infarction

Disorders of pigmentation

Hyperlipidaemia and lipidosis

Amyloidosis

Neoplasia :Definition,Nomenclature,Characteristics of tumours,Aetiology and pathogenesis,grading and staging,diagnostic

approaches,interrelationship of tumour and host,course and management

(b)Systemic pathology:

1.Malnutrition and deficiency diseases:Protein energy malnutrition ,Vitamin deficiency disorders

2.Diseases of cardiovascular system:Heart failure,Ischaemic heart disease,Myocardial infarction,

Hypertensive heart disease,Rheumatic heart disease,Bacterial endocarditis

3. Diseases of blood vessels and lymphatics: Atherosclerosis, Lymphangitis, Lymphoedema
4. Diseases of kidney and lower urinary tract: Acute renal failure, Acute nephritic syndrome, Nephrotic syndrome, Glomerulonephritis, Cystitis
5. Diseases of male reproductive system and prostate: Prostatitis, benign hyperplasia of prostate
6. Diseases of female genitalia and breast: Cervicitis, Cervical dysplasia, Carcinoma in situ, Leiomyoma, Mastitis, Fibroadenoma, Salpingitis
7. Diseases of eye, ENT and Neck
8. Diseases of the respiratory system: Pneumonia, Lung abscess, Chronic bronchitis, Emphysema, Bronchial asthma, Bronchiectasis, Pulmonary tuberculosis, Pleuritis
9. Diseases of oral cavity and salivary glands: Stomatitis, Sialadenitis
10. Diseases of G.I. system: Gastritis, Gastric and duodenal ulcers, Crohn's disease, Ulcerative colitis, Appendicitis
11. Diseases of liver, gall bladder, biliary ducts: Jaundice, Acute hepatitis, Chronic hepatitis, Cirrhosis, Portal hypertension, Cholelithiasis, Cholecystitis
12. Diseases of pancreas (including Diabetes mellitus): Acute pancreatitis, Chronic pancreatitis, Diabetes mellitus- Types, aetiopathogenesis, acute metabolic complications, late systemic complications
13. Diseases of haemopoietic system, bone marrow and blood: Anaemia- pathophysiologic classification, general clinical features, Iron deficiency

anaemia-Aetiology,pathogenesis,laboratory findings,Haemolytic anaemia-classification

Acute myeloid leukaemia-WHO classification,clinical features,laboratory findings

Chronic myeloid leukaemia-clinical features,laboratory findings

14.Diseases of glands-Thymus,Pituitary,Thyroid and Parathyroid,Adrenals,Parotid:Acromegaly,Cushing's syndrome,Myxoedema,Cretinism,Goitre,Thyrotoxicosis,Hyperthyroidism

15.Diseases of skin and soft tissue:Dermatosis-Listing various types,Squamous cell carcinoma,Basal cell carcinoma

16.Diseases of the musculo-skeletal system:Pyogenic osteomyelitis,Tuberculous

osteomyelitis,Osteosarcoma,Osteoarthritis,Rheumatoid arthritis

17.Diseases of the nervous system:Acute pyogenic meningitis,CSF findings in various types of meningitis,Cerebral infarction,Intracerebral haemorrhage

18.Leprosy:Classification,Histopathology of leprosy

(c) Microbiology:

Acquired immunity

Humoral immunity

Hypersensitivity

Immuno-deficiency

Auto-immunity

Transplantation

(III) Bacteriology:

.Gram positive aerobic and facultative anaerobic cocci, eg. Staphylococcus

aureus, Streptococcus pyogenes, Pneumococcus

Gram positive anaerobic cocci, eg. Peptostreptococci

Gram negative aerobic cocci, eg. Neisseria gonorrhoea, Neisseria meningitidis, Moraxella catarrhalis, Kingella

Gram positive aerobic bacilli, eg. Corynebacterium diphtheriae, Bacillus anthracis, Mycobacterium tuberculosis, Mycobacterium leprae, Nocardia

Organism of enterobacteriaceae group – Escherichia coli, Klebsiella

pneumonia, Proteus mirabilis, Shigellae, Salmonella typhi, Salmonella paratyphi A and B

Gram positive anaerobic bacilli, eg. Genus Clostridium, Lactobacillus

Gram negative anaerobic bacilli, eg. Bacteroides fragilis

Others like Vibrio cholera, Yersinia pestis, Pasteurella tularensis, Treponema pallidum, Leptospira interrogans, Mycoplasma pneumoniae, Rickettsiae prowazekii, Chlamydiae

(IV) Fungi and Parasites:

1. Fungi: True pathogens (cutaneous, subcutaneous and systemic infective agents), Opportunistic pathogens

2. Protozoa: Entamoeba histolytica, Giardia lamblia, Trichomonas vaginalis, Trypanosoma brucei, Leishmania donovani, Plasmodium species, Toxoplasma gondii

3. Helminths: **Cestodes:** Taenia saginata, Taenia solium, Echinococcus granulosus

Trematodes: Schistosoma haematobium, Schistosoma mansoni, Paragonimus westermani

Nematodes: Trichuris trichiura, Strongyloides

stercoralis, Ancylostoma duodenale, Enterobius vermicularis, Ascaris lumbricoides, Wuchereria bancrofti, Brugia malayi, Onchocerca volvulus, Loa Loa, Dracunculus medinensis

(V) Virology:

DNA viruses:

- i. Parvo virus
- ii. Herpes virus, Varicella virus, Cytomegalo virus, Epstein Barr

virus

- iii. Hepatitis virus – A, B, C, D, E
- iv. Papova virus: Papilloma virus
- v. Adeno virus
- vi. Pox virus, Variola virus, Vaccinia virus, Molluscum

contagiosum

.RNA virus:

- a. Orthomyxovirus (i) Entero virus – polio virus
 - (ii) Rhinovirus
 - (iii) Influenza virus
- b. Paramyxivirus: Rubeola virus (Measles), Mumps virus
- c. Rhabdovirus: Rabies virus
- d. Retro virus: Human Immunodeficiency virus
- e. Chikungunya virus, Dengue virus
- f. Yellow fever virus