

SYNOPSIS - GENERAL PATHOLOGY

- 1. Introduction to Pathology: Health and Disease. Terminology and Methods in Pathology. Subdivision of Pathology.
- 2. Reversible Cell Injury. Etiology and Pathogenesis. Morphology .Cellular Swelling. Hydropic Changes. Intracellular Hyaline Accumulation (Russel, s Bodies, Mallory's Bodies)
- 3. Reversible Cell Injury. Cellular Adaptation. Hypertrophy and Hyperplasia. Types.
- 4. Cellular Adaptation. Atrophy. Types. Metaplasia. Dysplasia.
- 5. Intracellular Accumulations. Fatty Changes (Steatosis). Pathogenesis. Morphology. Stromal Fatty Infiltration. Lipomatosis. Intracellular Accumulation of Glycogen. Mucoid Changes. Epithelial Mucin. Connective Tissue Mucin.
- 6. Accumulation of Pigments. Classification of Pigments. Exogenous Pigments. Endogenous pigments. Hemosiderin Local and Generalized Hemosiderosis.
- 7. Endogenous Pigments. Accumulation of Melanin and Lipofuscin, Bilirubin, Jaundice.
- 8. Hyaline Changes (Hyalinosis). Pathologic Calcification.
- 9. Amyloidosis. Etiology and Pathogenesis. Classification. Staining Characteristics of Amyloid. Pathologic Changes in Organs.
- Irreversible Cell Injury. Necrosis. Etiology and Pathogenesis. Morphology. Apoptosis. Specific Morphologic Forms of Necrosis: Coagulative Necrosis, Caseous Necrosis, Liquefactive Necrosis, Gangrene, Decubitus, Fat Necrosis, Fibrinoid Necrosis.
- Hemodynamic Disorders. Edema. Etiopathogenetic Mechanism .Type and Morphology of Edema: Subcutaneous Edema. Pulmonary Edema. Edema of the Brain. Fluid Accumulation in Body Cavities. Clinical Correlation.
- 12. Hemodynamic Disorders. Hyperemia. Active Hyperemia. Passive Hyperemia (Congestion). Morphology. Acute and Chronic type. Pathologic Changes in Lungs, Liver, Spleen and Brain.
- 13. Hemorrhage. Causes. Mechanisms. Types. Hematoma, Petechia, Purpura. Ecchymoses. Large Accumulation of blood in the body cavities.
- 14. Thrombosis. Pathogenesis (Virchov's triad). Morphology of Thrombi. Arterial system Thrombi. Thrombosis in the Heart.Venous Thrombosis. Phlebothrombosis. Migratory Thrombosis. (Trousseau's Syndrome). Fate of Thrombosis. Clinical Features. Disseminated. Intravascular Coagulation (DIC).
- 15. Embolism. Thromboembolism. Pulmonary Embolism. Fate of Pulmonary Thromboemboli. Paradoxal Embolism. Systemic Embolism. Arterial Emboli.Air Embolism. Decompression Sickness. Amniotic Fluid Embolism. Fat Embolism. Miscellaneous Emboli.
- 16. Shock: Pathogenesis. Types and Stages of Shock. Pathologic Changes in Organs (Heart, Kidney, Lung, Liver, Brain).
- 17. Infarction. Types of Infarcts. Pathologic Changes in Organs. Outcome of Infarcts.
- 18. Inflammation. Definition. Terminology. Etiology. Mediators and Cells. Signs of Inflammation Local and Systemic Manifestations. Stages and Types.
- 19. Acute Inflammation. Exudate Formation Vascular and Cellular Events. DD Exudate and Transudate. Morphological Forms of Acute Inflammation: Serous, Fibrinous, Catarrhal, Purulent (Abscess, Flegmon). Hemorrhagic and Putrid Inflammation.
- 20. Chronic Inflammation. Types Inflammatory Cells. General Features of Chronic Inflammation. Morphologic Forms: Diffuse Interstitial Inflammation. Granulomatous Nonspecific Inflammation. Foreign Body Granuloma, Lipogranuloma.



- 21. Granulomatous inflammation in tuberculosis, syphilis, sarcoidosis, toxoplasmosis, catscratch disease, leprosy, actinomycosis, rheumatic fever (proliferative stage)
- 22. Regeneration. Local and Systemic Factors. Forms. Repair. Granulation tissue. Wound Healing.
- 23. Regeneration and Healing of Specialized Tissues. Healing of Mucosal Surface and Solid Epithelial Organs (Liver, Kidney, and Lung).Repair of Muscles, Nervous tissue. Healing of Bone Fracture.
- 24. Diseases of Immunity: Types of Hypersensitivity Reactions. (I, II, III, IV). Morphologic Correlations.
- 25. Immunodeficiency diseases. Primary and Secondary Immunodeficiency diseases. Acquired Immunodeficiency Syndrome (AIDS). Etiologic Agent. Epidemiology .Routes of Transmission. Pathogenesis. Pathology and Clinical Features.
- 26. Autoimmune Diseases. Types. Organ Specific Diseases. Non-organ Specific Diseases.
- 27. Neoplasm. Definition. Macroscopic Features. Microscopic Pattern; Cytomorphology of Neoplastic Cell: Differentiation and Anaplasia. Angiogenesis and Tumor Stroma. Inflammatory Reaction.
- 28. Neoplasms. Nomenclature of Benign Epithelial Tumors and Tumors of Mesenchymal cells. Local Invasion. Metastasis. Grading and Staging of Cancer. Premalignant Lesions. Acquired Preneoplastic Disorders.
- 29. Carcinogenesis. Etiology and Pathogenesis of Neoplasm. Carcinogens. Chemical Carcinogenesis. Stages.Physical Carcinogenesis. Carcinogenesis. Hormonal Carcinogenesis. Biologic Carcinogenesis. DNA and RNA Viruses.
- 30. Benign Epithelial Tumors. Clinical aspects and Morphologic Types Papillomas. Adenomas.
- 31. Malignant Epithelial Tumors. Clinical aspects and Morphologic Types Squamous Cell Carcinoma -. Basal Cell Carcinoma. Adenocarcinoma. Urothelial Carcinoma.
- 32. Benign Mesenchymal Tumors (Sort Tissue Tumors) Clinical aspects and Morphologic Types. Fibroma (DD with Fibromatosis). Osteoma. Chondroma. Lipoma. Rhabdomyoma and Leiomyoma. Hemangioma and Lymphangioma.
- 33. Malignant Mesenchymal Tumors .Clinical aspects and Morphologic Types. Fibrosarcoma. Malignant Fibrous Histiocytoma.. Chondrosarcoma. Osteosarcoma. Liposarcoma.
- 34. Malignant Mesenchymal Tumors (Soft Tissue Tumors). Clinical aspects and Morphologic Types. Rhabdomyosarcoma. Leiomyosarcoma. Synovial sarcoma. Angiosarcoma.
- 35. Benign and Malignant Melanocytic Tumors. Types of nevi pigmentosi. Clinical aspects and Morphologic Types. Malignant Melanoma.
- 36. Tumors of Central Nervous System. Clinical aspects and Morphologic Types. Classification. Astrocytoma, Glioblastoma, Meningeoma. Schwanoma, Neurofibroma. Neuroblastoma.

References

- 1. Pathology-3rd edition, The National Medical Series for Independent Study - Virginia A.LiVolsi, Maria J.Merino et all.,1994
- 2. Pathology, Board Review Series- Arthur S.Schneider, Philip A.Szantop 1993
- 3. Textbook of Pathology 6th Edition Harsh Mohan, 2005
- 4. Pathologic Basis of Disease, Cot ran, Kumar, Robbins, 4th Edition, 1989



5. Pathology – Second Edition, Em.Rubin, John Farbin, 1994