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## 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. Mucoïd 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.
10. 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.
11. 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 (Virchow’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 Non-specific Inflammation. Foreign Body Granuloma, Lipogranuloma.

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21. Granulomatous inflammation in tuberculosis, syphilis, sarcoidosis, toxoplasmosis, cat-scratch 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 (Soft 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. Schwannoma, Neurofibroma. Neuroblastoma.

### References

1. Pathology-3rd edition, The National Medical Series for Independent Study – Virginia A.LiVolsi, Maria J.Merino et al.,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, Cotran, Kumar, Robbins, 4th Edition, 1989

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