

(一) 病理學

主題(1) : Cellular Pathology

內容大綱: Cellular injury and cellular death (I)

1. Cause of cellular injury
2. Cell injury and necrosis: Biochemical mechanism
3. Ischemic, hypoxic and free radical injuries
4. Chemical injury

主題(2) : Cellular Pathology

內容大綱: Cellular injury and cellular death (II)

1. Morphology of injured cells
 - (1) Irreversible injury
 - a. Type of necrosis
 - b. Apoptosis
 - (2) Reversible injury
2. Subcellular responses to cell injury: Lysosomal, smooth ER, mitochondrial, cytoskeletal alteration

主題(3) : Cellular pathology

內容大綱: Intracellular accumulations of specific substances

1. Pigment
2. Fat
3. Protein
4. Glycogen, and other carbohydrates
5. Calcium
6. Hyaline degeneration

主題(4) : Cellular pathology

內容大綱: Cellular adaptation and aging

1. Atrophy, hypertrophy, hyperplasia, metaplasia and dysplasia
2. Cellular aging

主題(5) : Inflammation (I)(II)

內容大綱:

1. Acute inflammation: vascular changes and cellular events
2. Chemical mediators of inflammation
3. Chronic inflammation
4. Morphologic patterns in acute and chronic inflammation
5. Systemic effects of inflammation

主題(6): Tissue repair: cellular growth, fibrosis, and wound healing

內容大綱:

1. Control of normal cell growth
2. Extracellular matrix and cell-matrix interactions
3. Repair by connective tissue (fibrosis)
4. Wound healing

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主題(1) : Hemodynamic disorder (I)(II)

內容大綱:

1. Edema
2. Congestion
3. Hemorrhage
4. Hemostasis

主題(2) : Hemodynamic disorder(III)

內容大綱:

1. Thrombosis
2. Embolism
3. Infarction
4. Shock

主題(3) : Infectious disease (I)

內容大綱:

1. Tissue response to infection
(Many pathogens evoke same reaction pattern)
 - (1) Exudative inflammation
 - (2) Necrotizing inflammation
 - (3) Granulomatous inflammation
 - (4) Interstitial inflammation
 - (5) Cytopathic-cytoproliferative inflammation

主題(4) : Infectious disease (II): Bacterial, Spirochetal and Mycobacterial

內容大綱:

1. Gram-negative and Gram-positive bacteria, its identification
2. Typhoid fever
3. Syphilis, primary, secondary, tertiary, and congenital
4. Tuberculosis, primary, secondary, atypical
5. Leprosy, tuberculoid, lepromatous, intermedia

主題(5) : Infectious disease (III) : viral infection

內容大綱:

1. Virus-host interaction
 - (1) Abortive infection
 - (2) Latent infection
 - (3) Persistent infection
 - (4) Slow viral infection (long latency)

2. Tissue response to virus infection
 - (1) Lymphocytes and macrophages predominant
 - (2) Humoral immune response
 - Neutralization antibody
 - Complement activation
 - (3) Cellular immune response
 - NK cell, T-cell, interferon, Macrophage
3. Miscellaneous viral infection:
 - (1) Cytomegalic inclusion disease (CMV)
 - (2) Infectious mononucleosis
 - (3) Other viral pneumonia
 - (4) Other: measles, rubella, herpes I and II

主題(6) : Infectious disease (IV) : Fungal

內容大綱:

1. Superficial fungal infect
2. Deep fungal infection
 - (1) Candida
 - (2) Aspergillus
 - (3) Cryptococcus
 - (4) Mucormycosis

主題(7) : Infectious disease (V) : Protozoal and parasite

內容大綱:

1. Amebiasis
2. Pneumocystis carinii
3. Trichomonas
4. Toxoplasmosis
5. Chagas' disease
6. Filariasis
7. Enterobiasis
8. Paragonimiasis
9. Schistosomiasis

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主題(1) : Genetic disorder (I)(II)

內容大綱:

1. Human genome project
2. Methods of studying genetic disorder
3. Classification of human genetic disorders

主題(2) : Genetic disorder (III)

內容大綱:

1. Single gene disorder of Non-mendelian inheritance
2. Disorders with multifactorial inheritance
3. Gene diagnosis
4. Gene therapy

主題(3) : Genetic disorder (IV)

內容大綱:

1. Autosomal disorders
2. Amino acid metabolism disturbance
3. Accumulation of cholesterol (Familial hypercholesterolemia)

主題(4) : Genetic disorder (V)(VI)

內容大綱:

1. Glycogen storage disease (Pompe's disease, Von Gierke's disease)
2. Lipidosis (glycolipid)
 - (1) Tay-Sachs disease
 - (2) Gaucher's disease
 - (3) Niemann-Pick's disease
3. Mucopolysaccharidosis
 - (1) Hurler's syndrome (Gargolism)
 - (2) Hunter's syndrome

主題(5) : Genetic disorder (VII)(VIII)

學習目標:

瞭解人類染色體

內容大綱:

1. 介紹正常人染色體核型
2. 瞭解體染色體異常
3. 瞭解性染色體異常

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主題(1) : Immunologic disorder (I): Hypersensitivity reaction

內容大綱:

1. Type I hypersensitivity
2. Type II hypersensitivity
3. Type III hypersensitivity
4. Type IV hypersensitivity

主題(2) : Immunologic disorder (II): Transplant rejection

內容大綱:

1. Hyperacute rejection
2. Acute rejection-cellular, vascular
3. Chronic rejection

主題(3) : Immunologic disorder (III): Autoimmune disease

內容大綱:

1. Systemic lupus erythematosus
2. Sjogren's syndrome
3. Systemic sclerosis (scleroderma)
4. Polyarteritis nodosa

主題(4) : Immunologic disorder (IV)

內容大綱:

1. Primary immunodeficiencies
 - (1) DiGeorge's syndrome
 - (2) Linked agammaglobulinemia of Bruton
 - (3) Severe combined immunodeficiency disease (SCID)
 - (4) Wiskott - Aldrich syndrome
 - (5) Common variable immunodeficiency
 - (6) Selected IgA deficiency
2. Acquired immunodeficiency syndrome
 - (1) Human immunodeficiency syndrome
 - (2) Natural history of HIV infection
 - (3) Morphologic changes
 - (4) Others

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主題(1) : Environmental pathology (I)

內容大綱:

Common environmental and occupational exposures

主題(2) : Environmental pathology (II)

內容大綱:

Radiation injury

主題(3) : Environmental pathology (III)

內容大綱:

1. Thermal injuries
2. Injuries related to changes in atmospheric pressure

主題(4) : Nutrition disorder

內容大綱:

1. Nutritional deficiencies
2. Protein-energy malnutrition
3. Anorexia nervosa & bulimia
4. Vitamin deficiencies
5. Mineral deficiencies
6. Obesity
7. Diet & systemic diseases

主題(5) : Disease of infancy and childhood (I)(II)

內容大綱:

1. Intrauterine growth retardation
2. Birth injuries
3. Congenital malformations
4. Perinatal infections
5. Neonatal respiratory distress syndrome
6. Erythroblastosis fetalis
7. Sudden infant death Syndrome
8. Tumors and tumor-like lesions of infancy and childhood

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主題(1): Neoplasm

內容大綱:

1. Introduction (I)
 - (1) Definition and Nomenclature
 - Benign and malignant tumor
 - Epithelial vs Non-epithelial origin
 - (2) Examples
2. Clinical feature of tumors (II)
 - (1) Local and hormonal effects
 - (2) Cancer cachexia
 - (3) Paraneoplastic syndromes
 - (4) Grading and staging of tumors
3. Molecular basis of cancer (III)
 - (1) Oncogenes
 - (2) Tumor suppressor genes
 - (3) Genes that regulate apoptosis
4. Molecular basis of cancer (IV)
 - (1) Telomeres and cancer
 - (2) Molecular basis of multisite carcinogenesis
 - (3) Karyotypic changes in tumors
5. Molecular basis of cancer (V)
 - (1) Cancer immunity
 - (2) Cancer angiogenesis

主題(2): Neoplasm

內容大綱:

1. Biological characteristics of tumor growth (VI)
 - (1) Clonality of tumor
 - (2) Kinetics of tumor growth
 - (3) Tumor progression and heterogeneity
 - (4) Mechanisms of invasion and metastasis
 - (5) Karyotype of tumor
 - a. Normal karyotypic change vs nonrandom structural change
2. Carcinogenic agents and their cellular interactions (VII)
 - (1) Chemical carcinogenesis
 - (2) Viral and microbial carcinogenesis
 - (3) Radiation carcinogenesis

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主題(1) : Disease of vessels (I)

內容大綱:

1. Congenital anomaly
2. Atherosclerosis
3. Ateriosclerosis
4. Vasculitis

主題(2) : Disease of vessels (II)

內容大綱:

1. Aneurysm
2. Aortic dissection (Dissecting aneurysm)
3. Hyertension
4. Vein
5. Lymphatics
6. Tumor

主題(3) : Congenital heart disease

內容大綱:

1. Left to right shunt - Non-cyanotic CUD
2. Right to left shunt - cyanotic CUD
3. Obstructive congenital anomaly
4. Pulmonary hypertension

主題(4) : Disease of heart (I)(II)

內容大綱:

1. Ischemic heart disease
2. Hypertensive heart disease

主題(5) : Disease of heart (III)(IV)

內容大綱

1. Valvular heart disease
2. Cardiomyopathy and myocarditis
3. Pericarditis
4. Cardiac tumor

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主題(1)：呼吸系統疾病(I)

學習目標：

認識源於血管的肺臟疾病

內容大綱：

1. 認識肺水腫及充血的致病機轉和病理變化
2. 認識肺栓塞症的致病機轉與病理之變化
3. 認識肺臟高血壓症及其病理變化

主題(2)：呼吸系統疾病(II)

學習目標：

認識慢性阻塞性肺疾病

內容大綱：

1. 認識慢性阻塞性肺疾病的種類
2. 認識慢性阻塞性肺疾病的致病機轉
3. 認識慢性阻塞性肺疾病的病理變化
4. 如何鑑別診斷慢性阻塞性肺疾病

主題(3)：呼吸系統疾病(III)

學習目標：

認識肺部常見的感染

內容大綱：

1. 認識肺炎的種類及其病理形態學的變化
2. 認識肺結核症
3. 認識免疫功能缺損的人，常見的肺臟病理變化

主題(4)：呼吸系統疾病(IV)

學習目標：

認識肺臟腫瘤及間質性疾病

內容大綱：

1. 認識肺臟腫瘤的種類和組織學的分類
2. 認識肺臟的惡性腫瘤的病理形態學變化
3. 認識肺臟的轉移性腫瘤及其致病過程

主題(5)：呼吸系統疾病(V)

學習目標：

認識上呼吸道疾病

內容大綱

重要上呼吸道腫瘤及疾患

主題(6): Lung tumors (VI)

學習目標:

瞭解肺腫瘤的臨床及病理變化

內容大綱:

1. Bronchogenic carcinoma
 - (1) Non-small cell lung carcinoma (NSCLC)
 - a. Squamous cell carcinoma
 - b. Adenocarcinoma
 - c. Bronchioloalveolar carcinoma
 - d. Large cell carcinoma
 - (2) Small cell carcinoma (SCLC)
 - (3) Combined patterns
 - Mixed squamous cell carcinoma & adenocarcinoma
 - Mixed squamous cell carcinoma & SCLC
2. Bronchial carcinoid

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主題(1): 病毒性肝炎(I)

學習目標:

瞭解病毒性肝炎的病理變化及自然史

內容大綱:

1. 黃疸之病理學
2. 急性病毒性肝炎之病理變化與臨床病理關連性

主題(2): 病毒性肝炎(II)

內容大綱:

1. 慢性病毒性肝炎之組織學分類
2. 慢性病毒性肝炎之自然史

主題(3): 肝硬化

學習目標:

1. 瞭解國人常見的肝硬化種類及其病理機轉
2. 瞭解肝癌發生相關的因子

內容大綱:

1. 肝硬化之種類和病理變化

主題(4): 肝腫瘤及兒科肝臟疾病

內容大綱:

1. 良性肝腫瘤
2. 惡性肝腫瘤之病理變化與預後
3. 兒童肝腫瘤

主題(5): Disease of liver

內容大綱

1.
 - (1) Anatomy, function and injuries of liver: pathologic aspects
 - (2) Major manifestations of liver injury: clinicopathologic correlation
 - (3) Pathology of hyperbilirubinemia/jaundice: biliary atresia and neonatal hepatitis
2.
 - (1) Hepatitis: pathologic and etiologic classifications
 - (2) Viral hepatitis, acute and fulminant: clinicopathologic correlation
 - (3) Viral hepatitis, chronic: natural courses versus viral replication, complications
 - (4) Autoimmune and drug-induced hepatitis

3.

- (1) Cirrhosis: viral, alcoholic, metabolic, genetic, cryptogenic
- (2) Primary biliary cirrhosis:
- (3) Liver transplant rejection and graft versus host disease
- (4) Portal hypertension: Anatomical classification

4.

- (1) Anomalies of biliary tree:
- (2) Circulatory disorders:
- (3) Liver disease associated with pregnancy
- (4) Reye's syndrome:

5.

- (1) Benign liver tumors: Focal nodular hyperplasia and adenoma
- (2) Malignant liver tumors:
 - a. Hepatoblastoma
 - b. Hepatocellular carcinoma (adult versus children)
 - c. Cholangiocarcinoma
- (3) Liver abscess

主題(6): Disease of gallbladder and biliary tract

內容大綱:

- 1. Congenital anomalies
- 2. Disorders of the gallbladder
 - (1) Cholelithiasis (gallstones)
 - (2) Cholecystitis: acute and chronic
- 3. Disorders of the extrahepatic bile ducts
- 4. Tumors
 - (1) Carcinoma of the gallbladder
 - (2) Carcinoma of the extrahepatic bile ducts
- 5. Miscellaneous disorders of the biliary tree

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主題(1): 口咽疾病的病理變化

內容大綱:

1. Stomatitis
2. Glossitis
3. Leukoplakia
4. Salivary gland tumor
5. Nasopharyngeal cancer

主題(2): 食道與胃疾病的病理變化

內容大綱:

1. Barrett's esophagus
2. Esophageal varices
3. Esophageal cancer
4. Gastritis
5. Peptic ulcer
6. Gastric cancer

主題(3): 小腸疾病的病理變化

內容大綱:

1. Ischemic bowel disease
2. Infective enterocolitis
3. Inflammatory bowel disease-- Crohn's disease and Ulcerative colitis
4. Malabsorption syndrome
5. Ileus
4. Neoplasms (cancer and carcinoid)

主題(4): 大腸疾病的病理變化

內容大綱:

1. Megacolon
2. Diverticulosis
3. Inflammatory bowel disease-- Crohn's disease and Ulcerative colitis
4. Appendicitis and mucocele
5. Polyp and polyposis syndrome
6. Colon cancer
7. Hemorrhoid

主題(5): 胰臟及膽囊疾病的病理變化

學習目標:

1. 明白胰臟之膽囊疾病的病理變化

內容大綱:

1. 急性及慢性胰臟炎的成因、病理變化及併發症
2. 胰臟癌的病理變化
3. 膽結石的成因與分類
4. 急性與慢性膽囊炎的病理變化

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主題(1) : Disease of female genital tract (I)(II)

內容大綱:

1. Normal: Embryology, Anatomy
2. Pathology
 - (1) Female genital infections
 - a. Lower genital tract
 - b. Lower and upper genital tract
 - Pelvic inflammatory disease (PID)
 - (2) Vulva: Bartholin's cyst; Vestibular adenitis, Vulvar dystrophy, tumors
 - (3) Vagina: Congenital anomalies; Premalignant and malignant tumors

主題(2) : Disease of Female genital tract (III)(IV): Cervix and Corpus

內容大綱:

1. Cervix: inflammation
Intraepithelial and invasive squamous neoplasia: CIN, SIL
2. Corpus:
 - (1) Endometrial history in the menstrual cycle
 - (2) Dysfunctional uterine bleeding (DUB)
 - (3) Inflammation
 - (4) Adenomyosis
 - (5) Endometriosis
 - (6) Endometrial hyperplasia
 - (7) Tumors

主題(3) : Disease of female genital tract (V): Fallopian tube and ovary

內容大綱:

1. Fallopian tube: Inflammation: Cyst and tumor
2. Ovary:
 - (1) Non-neoplastic lesions
 - (2) Tumors
 - a. Tumors of surface epithelium: benign, borderline malignancy, malignant
 - b. Germ cell tumor
 - c. Sex cord-stromal tumor
 - d. Metastatic tumor

主題(4) : Disease of female genital tract (VI): Gestational and Placental disorders

內容大綱:

1. Placental inflammations and infections
2. Disorders of early pregnancy: spontaneous abortion; ectopic pregnancy

3. Disorders of late pregnancy: placental abnormalities and twin placentas. toxemia of pregnancy
4. Gestational trophoblastic disease
 - (1) Hydatidiform mole (Complete and partial)
 - (2) Invasive mole
 - (3) Choriocarcinoma
 - (4) Placental site trophoblastic tumor

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主題(1) : Disease of kidney (I)

內容大綱:

1. Normal physiology and disease manifestations
2. Congenital anomalies: Renal dysplasia, polycystic kidney diseases

主題(2) : Disease of kidney (II)

內容大綱:

1. Glomerular disease: Basic morphologic changes, clinical manifestation, immunopathology (sites of deposition and pathology), clinicopathologic correlation)
2. Acute GN
3. Crescentic GN: classification
4. Goodpasture's syndrome
5. IgA nephropathy, hereditary nephritis and thin GBM disease

主題(3) : Disease of kidney (III)

內容大綱:

1. Nephrotic syndrome
 - (1) Minimal change disease: podocyte injury, reversible
 - (2) Focal segmental sclerosis: podocyte injury → detachment
 - (3) Membranous nephropathy or GN: adults versus children
 - (4) Membranoproliferative GN: type I versus type II
2. Systemic diseases: SLE, DM, amyloidosis

主題(4) : Disease of kidney (IV)

內容大綱:

1. Acute tubular necrosis
2. Tubulointerstitial nephritis: acute versus chronic
Chinese herb drug nephropathy
3. Pyelonephritis
4. Diseases of blood vessels: benign versus malignant nephrosclerosis
5. Renovascular hypertension

主題(5) : Disease of kidney (V)

內容大綱

1. Thrombotic microangiopathies: hemolytic-uremic syndrome
2. Urinary tract obstruction
3. Tumors of the kidney

主題(6): Lower urinary tract and male genital system(I)(II)

內容大綱

1. Kidney tumors
2. Lower urinary tract disease
3. Male genital system: testicular tumors
4. Prostate: nodular hyperplasia, carcinoma

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主題(1) : Hematopathology (I)

內容大綱:

1. 造血系統、幹細胞分化及造血生長因子
2. Review 免疫學基本觀念及應用，以幫助對淋巴瘤之來源及分類

主題(2) : Hematopathology (II)

內容大綱:

介紹急性白血病分類

主題(3) : Hematopathology (III)

內容大綱:

介紹慢性白血病分類

主題(4) : Hematopathology (IV)

內容大綱:

介紹淋巴瘤的分類

介紹 Hodgkin's disease 及組織球增生疾病

主題(5) : Hematopathology (V)

內容大綱

1. 介紹其他造血及免疫器官之疾病，包括：脾臟、胸腺與骨髓疾病
2. 總結

主題(6) : Hematopathology (VI)

內容大綱

介紹造血器官(骨髓)之疾病，包括 MDS(Myelodysplasia)及貧血與各種造血細胞發育不良之疾病及其可能之演化。

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主題(1)：腦下垂體疾病的病理變化

學習目標：

1. 明白腦下垂體機能亢進或低下時的各種病理變化

內容大綱：

1. 腦下垂體腺瘤的形態學分類
2. 腦下垂體腺瘤的功能性分類
3. 腦下垂體機能低下時的病理變化

主題(2)：甲狀腺疾病的病理變化

學習目標：

1. 明白甲狀腺機能亢進或低下時的各種病理變化
2. 甲狀腺腫的各種不同病理特徵

內容大綱：

1. 甲狀腺機能低下或亢進有關的病理變化
2. 甲狀腺炎的病理分類及特徵
3. 甲狀腺腫瘤的病理分類及特徵

主題(3)：腎上腺疾病的病理變化

學習目標：

1. 明白腎上腺機能亢進或低下時的各種病理變化
2. 了解腎上腺腫瘤的病理分類及特徵

內容大綱：

1. Cushing's syndrome 的腎上腺病理變化
2. Primary aldosteronism 的腎上腺病理變化
3. Adrenogenital syndrome 的腎上腺病理變化
4. 腎上腺髓質腫瘤的病理特徵

主題(4)：副甲狀腺及胰內分泌系統疾病的病理變化

學習目標：

1. 明白副甲狀腺機能亢進或低下時的各種病理變化
2. 了解糖尿病的病理特徵

內容大綱：

1. 原發性副甲狀腺機能亢進的病理分類及特徵
2. 糖尿病的功能性分類

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主題(1) : Orthopaedic pathology (I)(II)

學習目標:

瞭解具生物活性骨組織之病變

內容大綱:

1. Bone structures
2. Hereditary disorders
3. Infections
4. Fractures
5. Metabolic bone diseases

主題(2) : Orthopaedic pathology (III)(IV)

學習目標:

瞭解骨腫瘤的臨床及病理變化

內容大綱:

1. Tumor and tumor-like lesions

主題(3) : Orthopaedic pathology (V)

學習目標:

瞭解關節病變

內容大綱:

1. Joint structures
2. Inflammatory and noninflammatory joint diseases
3. Synovial chondromatosis
4. Synovial fluid
5. Tumor and tumor-like lesions

主題(4) : Soft tissue tumors and tumor-like conditions (I)(II)

學習目標:

瞭解軟組織病變

內容大綱:

1. Tumors
 - (1) Lipoma, liposarcoma
 - (2) Fibrous histiocyoma
 - (3) Rhabdomyoma, rhabdomyosarcoma
 - (4) Leiomyoma, leiomyosarcoma
 - (5) Granular cell tumor
 - (6) Alveolar soft part sarcoma
2. Fibrous tumors and tumor-like conditions
 - (1) Reactive pseudosarcomatous proliferations

- a. Nodular fascitis
- b. Myositis ossificans
- (2) Fibromatosis
- (3) Fibrosarcoma

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主題(1): 神經系統疾病 (I)

內容大綱:

神經原與神經膠細胞之基本病理反應

主題(2): 神經系統疾病 (II)

內容大綱:

認識台灣常見的腦部感染

主題(3): 神經系統疾病(III)

內容大綱:

1. 中樞神經系統腫瘤的分類
2. 中樞神經系統腫瘤形態學的診斷
3. 周邊神經系統腫瘤的形態病理學

主題(4): 神經系統疾病 (IV)

內容大綱:

1. 高血壓和血管性的腦部疾病
2. 腦部外傷所引起的腦部病理變化(如 IICP 等)

主題(5): 神經系統疾病 (V)

內容大綱:

1. 大腦皮質的退化性神經疾病的病理變化
2. 腦幹及基底核的退化性神經疾病的病理變化
3. 脊髓小腦的退化性疾病
4. 髓鞘脫失的疾病

主題(6): 神經系統疾病 (VI)

內容大綱:

1. 台灣常見的神經異常發育的疾病
2. 認識代謝性及代謝異常的疾病
3. 認識藥物及毒物性神經疾病

(一) 病理學

主題(1) : Disease of skin (I)

內容大綱:

1. Structure of skin
2. Disorders of pigmentation
3. Benign epithelial tumors
4. Premalignant and malignant epidermal tumor
5. Tumors of dermis

主題(2) : Disease of skin (II)

內容大綱:

1. Tumor of cellular immigrants to the skin
2. Acute inflammatory dermatoses
3. Chronic inflammatory dermatoses
4. Bullous disease
5. Viral infection

主題(3) : Disease of eye and ear

內容大綱:

1. External and middle ear diseases
2. Neoplasms of ear
3. Neoplasms of eye

主題(4) : Disease of skeletal muscle

內容大綱:

1. Guidelines to muscle biopsy evaluation
2. Neurogenic myopathy
3. Myogenic myopathy
4. Congenital myopathy

主題(5) : Disease of breast (I)(II)

內容大綱

1. Congenital anomalies
2. Inflammation
3. Fibrocystic change
4. Benign tumors of breast
5. Malignant tumors of breast
6. Diseases of male breast