《病理学》教学大纲（理论）

Pathology syllabus (Theory)

（基础医学专业用）

（For Basic Medicine）

INTRODUCTION

The purpose of this course is to understand the contents and task of pathology, and the status of pathology in medical science. To learn the guiding ideology and methodology of pathology. To know the research method and development of pathology.

Chapter1 CELLULAR INJURY AND ADAPTATION

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1.Grasp the concepts related to cellular injury and adaptation.

2.Grasp the etiology, the basic pathological process, the pathological changes and the mechanism of cellular injury.

Skills

At the end of the course the student will be able to:

1.Grasp the morphological changes of adaptation and cellular injury.

2.Grasp the etiology, basic pathological process, the morphological changes and the mechanism of cellular injury.

B. COURSE CONTENT

1.The type, relative concepts and pathological significance of adaptation. The type of atrophy.

2.The etiology and the mechanism of cellular injury.

3.The concept and type of degeneration. The concept, the morphological changes and pathological significance of cellular swelling, fatty degeneration, hyaline degeneration, amyloid degeneration, pathological pigmentation and calcification.

4.The concept of necrosis and apoptosis, the type of necrosis, the pathological changes of all kinds of necrosis. The results of necrosis.

C. COURSE TIME

4h

D. Teaching method：lecture method

Chapter2 TISSUE REPAIR

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Grasp the concepts within the tissue repair content.

2. Grasp the relationship between granulation tissue and repair.

3.Grasp the function of granulation tissue during wound healing.

4. Grasp the process of bone fracture healing.

Skills

At the end of the course the student will be able to:

1. Grasp the morphological changes, forming the process of granulation tissue.

B. COURSE CONTENT

1.The concept of regeneration and tissue repair, the way and ability of cell regeneration. The processes of all kinds of tissues (blood vessel, connective tissue, epithelial cell, muscle tissue, nervous tissue), and the mechanism of regeneration.

2.The factors influencing regeneration.

3.The concept, the morphological changes and pathological significance of granulation tissue. The type and basal process of wound healing.

C. COURSE TIME

3h

D. Teaching method：lecture method

Chapter3 LOCAL HEMODYNAMIC DISORDERS

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Grasp the concepts within the content of the local hemodynamic disorders content.

2. Grasp the etiology, pathological changes and results of congestion.

3.Grasp the pathogenesis, the mechanism, the morphological characteristics and the results of thrombosis.

4.Grasp the morphological changes, types and the results of infarction.

5. Grasp the concept of congestion and the pathological changes of liver and pulmonary congestion.

6. Grasp the concept of thrombosis, thrombus, embolism and infarction.

Skills

At the end of the course the student will be able to:

1.Grasp the morphological changes and the results of thrombosis.

2.Grasp the morphological changes, the type and results of an infarct.

B. COURSE CONTENT

1.The concept, the etiology, the pathological changes and the results of hyperemia.

2.The pathological changes of liver and pulmonary congestion.

3.The concept of thrombosis and thrombus. The pathogenesis, the forming process and the morphological changes of thrombosis. The results and effects of thrombosis.

4.The concept of embolism, the type of the thrombi, the fates of a thromboembolism.

5. The concept, the pathogenesis and pathological changes of an infarct.

C. COURSE TIME

3h

D. Teaching method：lecture method

Chapter4 INFLAMMATION

A. OBJECTIVES

Knowledge：

1.To grasp the definition and basic pathological changes of inflammation.

2.To grasp the pathological features of each kind of acute and chronic inflammation, and the outcomes of acute inflammation.

3.To grasp the process and result of inflammation.

4.To grasp biological purpose of inflammation.

5.To have a knowledge of the hemodynamic changes in acute inflammation, and the process and mechanism of leukocyte transmigration.

6.To have a knowledge of the origin and functions of inflammatory mediators.

Skills

At the end of the course the student will be able to:

Describe the pathological changes of common fibrinous inflammation and purulent inflammation.

B. COURSE CONTENT

1.The introduction to inflammation.

2.The hemodynamic changes in acute inflammation.

3.Pathological changes and outcomes of common acute and chronic inflammation.

C. COURSE TIME

3h

D. Teaching method：lecture method

Chapter5 NEOPLASM

A. OBJECTIVES

Knowledge:

1.Remember the definition, morphological features and atypia of neoplasm.

2.Remember the nomenclature of neoplasm.

3.Remember the growth pattern and metastasis pathway of neoplasm.

4.Remember the differences between benign and malignant tumors, carcinoma and sarcoma.

5.Remember the definitions of precancerous lesion, dysplasia and carcinoma in situ, and the main examples of precancerous disease.

6.Understand the classification, grading and staging of neoplasm.

7.Understand the clinical effects of neoplasm on the host.

8.Understand the molecular mechanism of neoplasia.

9.Understand the epidemiology of neoplasia, especially environmental factors and heredity.

10.Understand the host defenses against tumors.

11.Understand the main morphological features of common tumors.

Skills:

At the end of the course the student will be able to:

Describe the pathological changes of common epithelial and mesenchymal tumors.

B. COURSE CONTENT

1.The definition, morphological features, differentiation and dysplasia of neoplasm.

2.The nomenclature and classification of neoplasm.

3.The growth and invasion of neoplasm.

4.The grading and staging of neoplasm.

5.The clinical effects of neoplasm on the host.

6.The comparison between benign and malignant tumors.

7.Precancerous lesion, dysplasia and carcinoma in situ.

8.The molecular mechanism and pathogenesis of neoplasia.

9.Short introduction to common neoplasms.

C. COURSE TIME

7h

D. Teaching method：lecture method

Chapter6 DISEASES OF THE CARDIOVASCULAR SYSTEM

A. OBJECTIVES

1.Grasp the etiology, pathogenesis, morphology, and clinicopathological correlation (including important complications) of rheumatism, infective endocarditis, valvular heart disease, hypertension, atherosclerosis and ischemic (coronary) heart disease.

2. Grasp the pathological changes of rheumatic heart disease. Chronic valvular heart disease effects on hemodynamics. Pathology and consequences of every stage of hypertension. Basic pathology of atherosclerosis. Type, pathology and consequences of coronary heart disease (atherosclerosis).

3. Be familiar with the etiology, pathogenesis, spread pathway, pathology and clinicopathological correlation of myocarditis and cardiomyopathy.

Skills

At the end of the course the student will be able to:

Master the morphological changes of rheumatism, infective endocarditis, hypertension, atherosclerosis and ischemic (coronary) heart disease.

B. COURSE CONTENT

1. Etiology, pathogenesis, basic pathology and developmental process of rheumatism.

2. Pathology of rheumatic endocarditis, myocarditis, pericarditis, and arthritis.

3. Pathogenesis, morphology, and clinicopathological correlation of chronic valvular heart disease.

4. Pathogeny, pathogenesis, pathology and clinicopathological correlation of subacute infective endocarditis.

5. Etiology and pathogenesis of hypertension, pathology and the consequences of every phase of benign hypertension, characteristics of accelerated hypertension.

6. Etiology, pathogenesis, morphology, and consequences of atherosclerosis.

7. Classification and pathology of coronary atherosclerotic heart disease. Pathogenesis and clinical manifestation of angina. Pathogenesis, pathology and consequences of myocardial infarction.

8. Concept and common type of cardiomyopathy.

C. COURSE TIME

9h

D. Teaching method：lecture method and self-learning

E. Self-learning (CPC):

（1）学习目标：引领学生通过自主学习逐步掌握风心病的基本知识和基本理论。

（2）学习资源：

①病理学, 孙保存, 北京大学医学出版, 2019年 第六章 心血管系统疾病

②ROBBINS AND COTRAN PATHOLOGIC BASIS OF DISEASE, Vinay Kumar, Abul K. Abbas, Jon C. Aster, Elsevier, 2015.

③自主查找病例相关的内科学、诊断学知识及相关参考文献

（3）教学方法：教师根据教学目的和要求，课前布置病例分析的要求和学习任务；课中通过对风湿性心脏病病例进行分析，以小组病例分析和讨论的形式完成教学任务。

（4）考核评价原则及成绩评定方法：教师根据评价标准（考勤10%+课堂发言30%+PPT30%+作业30%）对每个小组完成的病例分析进行评价。

Chapter7 DISEASES OF RESPAIRATORY SYSTEM

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Grasp the etiology, pathogenesis, pathological lesion, and clinicopathological features of chronic obstructive pulmonary diseases (including chronic bronchitis, emphysema, bronchial asthma, and bronchiectasis).

2. Grasp the etiology, pathogenesis, pathological lesion, and clinicopathological features of silicosis, chronic cor pulmonale, pneumonia, acute respiratory failure, nasopharyngeal carcinoma and bronchial pulmonary carcinoma.

Skills

At the end of the course the student will be able to:

Grasp the morphological changes of chronic obstructive pulmonary diseases (including chronic bronchitis, emphysema and bronchiectasis), silicosis, pneumonia, nasopharyngeal carcinoma, bronchial pulmonary carcinoma.

B. COURSE CONTENT

1. The etiology, pathogenesis, pathological changes, and clinicopathological features of chronic bronchitis, emphysema, and chronic cor pulmonale.

2. The etiology, pathogenesis, pathological changes, clinicopathological features, and complications of lobar pneumonia.

3. The etiology and pathological changes of lobular pneumonia. The concept of interstitial pneumonia.

4. The etiology, pathogenesis, and pathological changes of bronchiectasis. The etiology, pathogenesis, pathological changes, and complications of silicosis.

5. The etiology, gross type, morphological features, metastasis, and complications of pulmonary carcinoma and nasopharyngeal carcinoma.

C. COURSE TIME

9h

D. Teaching method：lecture method

E. Self-learning (CPC):

（1）学习目标：引领学生通过自主学习逐步掌握肺源性心脏病的基本知识和基本理论。

（2）学习资源：

①病理学, 孙保存, 北京大学医学出版, 2019年 第八章 呼吸系统疾病

②ROBBINS AND COTRAN PATHOLOGIC BASIS OF DISEASE, Vinay Kumar, Abul K. Abbas, Jon C. Aster, Elsevier, 2015.

③自主查找病例相关的内科学、诊断学知识及相关参考文献

（3）教学方法：教师根据教学目的和要求，课前布置病例分析的要求和学习任务；课中通过对肺源性心脏病病例进行分析，以小组病例分析和讨论的形式完成教学任务。

（4）考核评价原则及成绩评定方法：教师根据评价标准（考勤10%+课堂发言30%+PPT30%+作业30%）对每个小组完成的病例分析进行评价。

Chapter8 DISEASES OF THE DIGESTIVE SYSTEM

1. OBJECTIVES

Knowledge

At the end of the course students will be able to:

1. Understand the etiology, pathogenesis, pathological changes and clinicopathological correlations of carcinoma of the esophagus, gastritis, peptic ulcer, carcinoma of the stomach, ulcerative colitis, appendicitis and carcinoma of the large intestine.

2. Understand the etiology, pathogenesis, pathological changes and clinicopathological correlations of viral hepatitis, liver cirrhosis, primary carcinoma of the liver.

3. Have a knowledge of the etiology, pathogenesis, pathological changes and clinicopathological correlations of acute pancreatitis.

Skills

At the end of the course students will be able to:

1. Master the pathological characteristics of chronic atrophic gastritis in gross view and microscopically.

2. Master the pathological changes of peptic ulcer of the stomach in gross view and microscopically.

3. Master the pathological characteristics of all types of appendicitis in gross view and microscopically.

4. Master the pathological changes of viral hepatitis and portal cirrhosis in gross view and microscopically.

5. Master the pathological changes of carcinoma of the digestive system in gross view and microscopically.

(1) Master the pathological changes of carcinoma of the esophagus.

(2) Master the pathological changes of carcinoma of the stomach.

(3) Master the pathological changes of colonic carcinoma.

(4) Master the pathological changes of primary carcinoma of the liver.

B. COURSE CONTENT

1. Pathology of the Gastro-Intestinal Tract

(1) Carcinoma of the esophagus: etiology, pathological changes, metastasis and clinical-pathological correlation.

(2) Peptic ulcer: etiology, pathogenesis, pathological changes and complications.

(3) Gastritis: classification and pathological changes.

(4) Carcinoma of the stomach: etiology, pathological changes, metastasis and clinical-pathological correlation.

(5) Appendicitis: etiology, pathogenesis, pathological changes and classification.

(6) Colonic carcinoma: etiology, pathological changes, metastasis and clinical-pathological correlations.

(7) Ulcerative Colitis: pathological changes and clinical-pathological correlation.

(8) Pancreatitis: etiology, pathogenesis, pathological changes and clinical-pathological correlation.

2. Pathology of the Liver and Biliary Tract.

(1) Viral hepatitis: etiology, pathogenesis, clinicopathological types, pathological changes and clinical-pathological correlation.

(2) Hepatocirrhosis: concept and classification, etiology, pathogenesis, pathological changes and clinicopathological correlations (portal, postnecrotic and billiary cirrhosis).

(3) Primary carcinoma of the liver: classification, etiology, pathological changes, metastasis and clinicopathological correlations.

C. COURSE TIME

9h

D. Teaching method：lecture method

E. Self-learning (CPC):

（1）学习目标：引领学生通过自主学习逐步掌握胃癌的基本知识和基本理论。

（2）学习资源：

①病理学, 孙保存, 北京大学医学出版, 2019年 第九章 消化系统疾病

②ROBBINS AND COTRAN PATHOLOGIC BASIS OF DISEASE, Vinay Kumar, Abul K. Abbas, Jon C. Aster, Elsevier, 2015.

③自主查找病例相关的内科学、诊断学知识及相关参考文献

（3）教学方法：教师根据教学目的和要求，课前布置病例分析的要求和学习任务；课中通过对胃癌病例进行分析，以小组病例分析和讨论的形式完成教学任务。

（4）考核评价原则及成绩评定方法：教师根据评价标准（考勤10%+课堂发言30%+PPT30%+作业30%）对每个小组完成的病例分析进行评价。

Chapter9 LYMPHATIC AND HEMATOPOIETIC SYSTEM DISEASE

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

Grasp the basic concepts of malignant lymphoma, leukemia, malignant histiocytosis.

Skills

At the end of the course the student will be able to:

Grasp the morphological changes of malignant lymphoma.

B. COURSE CONTENT

1. Concept, main type, pathological characteristics and clinical-pathological correlations of malignant lymphoma.

2. Basic concepts of leukemia and malignant histiocytosis.

C.COURSE TIME

2h

D. Teaching method：lecture method

Chapter10 IMMUNE DISEASE

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Master the concept of auto-immune disease, immune deficiency and acquired immunodeficiency syndrome (AIDS).

2. Describe the mechanism and types of auto-immune disease, systemic lupus erythematosus (SLE).

Skills

At the end of the course the student will be able to:

Understand the morphological changes of AIDS.

1. COURSE CONTENT

Theory

1. The immuno mechanism of injury of tissue, the types of hyperallergic reactions.

2. The pathogenic mechanism of auto-immune diseases and immune deficiency.

3. AIDS

C. COURSE TIME

2h

D．Teaching method：lecture method

Chapter11 DISEASES OF URINARY SYSTEM

1. OBJECTIVES

(1) To master the etiology, pathogenesis, pathological changes, pathological and clinical relationship of glomerulonephritis and tubulointerstitial nephritis.

(2) Familiar with the etiology, pathogenesis, pathological changes, pathological and clinical links of kidney and bladder tumors.

(3) Key points: Pathological and clinicopathological links between diffuse glomerulonephritis and chronic pyelonephritis.

B. COURSE CONTENT

(1) The concept, etiology and pathogenesis, classification, lesions, clinicopathological association and outcome of diffuse glomerulonephritis. The etiology and pathogenesis, infection route, pathological changes, clinicopathological association and outcome of pyelonephritis.

(2) Pathological and clinicopathological links between renal and bladder cancer.

C. COURSE TIME

3h

D．Teaching method：lecture method

Chapter12 DISEASES OF THE REPRODUCTIVE SYSTEM

1. OBJECTIVES

Knowledge

1. Grasp the etiology, pathogenesis, pathomorphology, clinicopathological features of carcinoma of the breast and cervical carcinoma.

2. Grasp the etiology, pathogenesis, pathomorphology, clinicopathological features of carcinoma of endomertrial adenocarcinoma, hydatidiform mole and choriocarcinoma.

3. Grasp the pathological features of cervical carcinoma and carcinoma of the breast.

Skill

Grasp the morphological changes of carcinoma of the breast, cervical carcinoma, endomertrial adenocarcinoma, hydatidiform mole and choriocarcinoma.

B. COURSE CONTENT

1. Chronic cervicitis

2. Cervical leiomyoma

3. Pathomorphology and spread, metastasis, clinicopathological of cervical carcinoma, hydatidform mole, choriocaricnoma and carcinoma of the breast.

4. Classification and features of ovarian neoplasms.

C.COURSE TIME

3h

1. Teaching method：lecture method

Chapter13 DISEASES OF THE ENDOCRINE SYSTEM

1. OBJECTIVES

Knowledge

1. Be familiar with the etiology, pathogenesis, pathology, the clinico-pathological relationship of simple goiter, hyperthyroidism, thyroid carcinoma, hyperadrenocorticism, adrenocortical insufficiency, and diabetes mellitus.

2. Be familiar with the hyperpituitarism, etiology and pathology of thyroid tumor, the classification of thyroid tumors, the classification of adrenocortical tumors, the pathology of islets and various organs and tissues in diabetes mellitus.

Skill

Grasp the morphological changes of simple goiter, hyperthyroidism, thyroid carcinoma, hyperadrenocorticism, adrenocortical insufficiency, and diabetes mellitus.

B. COURSE CONTENT

1. Diseases of the pituitary: concept, etiology and types of hyperpituitarism and hypopituitarism. The concept of pituitary drawfism, Sheehan’s syndrome and pituitary gigantism, acromegaly. galactorrhea-amenorrhea syndrome. Cushing syndrome.

2. Diseases of the thyroid: etiology, pathology, the relationship of pathology and the clinical course of endemic and sporadic goiter. Etiology, pathology, the clinico-pathological relationship of hyperthyroidism. Concept of hypothyroidism, cretinism. Classification and pathology of thyroid adenoma and thyroid adenocarcinoma.

3. Diseases of the adrenal gland: concept, pathology, the clinico-pathological relationship of hyperadrenocorticism, Cushing’s syndrome, primary hyperaldosteronism. etiology and pathology of adrenocortical insufficiency, Addison’s disease.

4. Diseases of islets: concept of islet cell tumor, Zollinger-Ellison syndrome. Diabetes mellitus: etiology, pathology, the clinico- pathological relationship of islets, blood vessels, kidney, retina, nerve et al.

C. COURSE TIME

3h

1. Teaching method：lecture method

Chapter14 DISEASES OF THE NERVOUS SYSTEM

1. OBJECTIVES

Knowledge

1. Master the pathogenesis, mechanisms, pathological changes and effects of Alzheimer’s disease and Parkinson’s disease.

2. Be familiar with the nervous system neoplasia.

3. Be familiar with the pathogenesis, mechanisms, pathological changes of the complication of nervous system diseases.

Skill

Be familiar with the morphological changes of Alzheimer’s disease, Parkinson’s disease and nervous system neoplasia.

B. COURSE CONTENT

1. Pathogenesis, mechanisms, pathological changes and results of central nervous system vascular disease, cerebral embolism, cerebral hemorrhage, cerebral edema and metabolic encephalopathy.

2. Pathogenesis, mechanisms, pathological changes of degenerative diseases of the nervous systerm.

3. To introduce briefly the tumors of the nervous system: astrocytoma, oligodendroglioma, medulloblastoma, ependymoma, meningioma, retinoblastoma, neuroblastoma, neurilemmoma and neurofibromatosis.

4. The complications of the central nervous system diseases.

C. COURSE TIME

3h

1. Teaching method：lecture method

Chapter15 INFECTIOUS DISEASES

1. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Master the basic pathological changes and describe the progression of tuberculosis, the pathogenesis, development and characteristics of different types of primary and secondary pulmonary tuberculosis. Master the pathological changes, the relationship of pathological characteristics to clinical manifestations of typhoid fever and bacillary dysentery.

2. Master the etiology, infectious routes, pathogenesis, pathological changes and the relationship of pathological characteristics to clinical manifestations of amoebiasis.

3. Be familiar with the etiology, infectious routes, pathogenesis, pathological changes and the relationship of pathological characteristics to clinical manifestations of sexually transmited diseases, including syphilis, gonorrhea, condyloma acuminatum.

Skills

At the end of the course the student will be able to:

1. Master the morphological changes of tuberculosis, typhoid fever, bacillary dysentery, amoebiasis and syphilis.

2. Be familiar with the morphological changes of gonorrhea, condyloma acuminatum.

B. COURSE CONTENT

1. The summary of infectious diseases.

2. The etiology, pathogenesis, basic pathological changes and development and progression of tuberculosis.

3. The pathogenesis, development, characteristics of different types, relationship of pathological characteristics to clinical manifestations of primary and secondary pulmonary tuberculosis. The characteristics of extrapulmonary tuberculosis (intestine, peritoneum, meninges, urinogenital system, bone and joint, lymph nodes).

4. The etiology, pathogenesis, Infectious routes, pathological changes, relationship of pathological characteristics to clinical manifestations of typhoid fever and bacillary dysentery.

5. The etiology, pathogenesis, infectious routes, pathological changes, relationship of pathological characteristics to clinical manifestations of amoebiasis.

6. The etiology, infectious routes, pathogenesis, pathological changes and the relationship of pathological characteristics to clinical manifestations of sexually transmited diseases, including syphiligonorrhea, condyloma acuminatum.

C. COURSE TIME

9h

D. Teaching method：lecture method

E. Self-learning (CPC):

（1）学习目标：引领学生通过自主学习逐步掌握结核病的基本知识和基本理论。

（2）学习资源：

①病理学, 孙保存, 北京大学医学出版, 2019年 第十五章 传染病

②ROBBINS AND COTRAN PATHOLOGIC BASIS OF DISEASE, Vinay Kumar, Abul K. Abbas, Jon C. Aster, Elsevier, Ninth Edition.

③自主查找病例相关的内科学、诊断学知识及相关参考文献

（3）教学方法：教师根据教学目的和要求，课前布置病例分析的要求和学习任务；课中通过对结核病病例进行分析，以小组病例分析和讨论的形式完成教学任务。

（4）考核评价原则及成绩评定方法：教师根据评价标准（考勤10%+课堂发言30%+PPT30%+作业30%）对每个小组完成的病例分析进行评价。

《病理学》教学大纲（实验）

Pathology syllabus (Experiment)

（基础医学专业用）

（For Basic Medicine）

INTRODUCTION

The pathology experiment course mainly guides students' ability to observe things independently by observing gross specimens and slides, then improves students' ability to comprehensively analyze and solve problems.

Chapter1 CELLULAR INJURY AND ADAPTATION

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1.Grasp the concepts related to cellular injury and adaptation.

2.Grasp the etiology, the basic pathological process, the pathological changes and the mechanism of cellular injury.

Skills

At the end of the course the student will be able to:

1.Grasp the morphological changes of adaptation and cellular injury.

2.Grasp the etiology, basic pathological process, the morphological changes and the mechanism of cellular injury.

B. COURSE CONTENT

1.Gross specimen: hydronephrosis, liver fatty change, caseous necrosis, amebic abscess of liver, dry and wet gangrene.

2.Section: liver cellular swelling, fatty change, spleen arteriosclerosis, liver cell focal necrosis.

C. COURSE CONTENT

3h

1. Teaching method：experiment method

Chapter2 TISSUE REPAIR

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Grasp the concepts within the tissue repair content.

2. Grasp the morphological changes, growing process of granulation tissue. Grasp the relationship between granulation tissue and repair. Grasp the function of granulation tissue during wound healing.

3. Grasp the process of bone fracture healing.

Skills

At the end of the course the student will be able to:

1. Grasp the concepts within the tissue repair content. Grasp the morphological changes, forming the process of granulation tissue.

2.Grasp the function of granulation tissue in wound healing and the relationship between granulation tissue and wound healing. Grasp the process of bone fracture healing.

B. COURSE CONTENT

1.Gross specimen: left ventricle concentric hypertrophy.

2.Section：granulation tissue, squamous cell metaplasia of bronchial epithelium.

C. COURSE CONTENT

3h

D. Teaching method：experiment method

Chapter3 LOCAL HEMODYNAMIC DISORDERS

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Grasp the concepts within the content of the local hemodynamic disorders content.

2. Grasp the etiology, pathological changes and results of congestion.

3.Grasp the pathogenesis, the mechanism, the morphological characteristics and the results of thrombosis.

4.Grasp the morphological changes, types and the results of infarction.

5. Grasp the concept of congestion and the pathological changes of liver and pulmonary congestion.

6. Grasp the concept of thrombosis, thrombus, embolism and infarction.

Skills

At the end of the course the student will be able to:

1.Grasp the concepts within the content of the local hemodynamic disorders content.

2.Grasp the etiology, pathological changes and results of congestion.

3.Grasp the pathogenesis, the morphological changes and the results of thrombosis.

4.Grasp the type and the results of embolism.

5.Grasp the morphological changes, the type and results of an infarct.

B. COURSE CONTENT

1. Gross specimen: pulmonary congestion, venous thrombus, mural thrombus in the heart, anemic infarction of spleen or kidney, pulmonary hemorrhagic infarction.

2. Section: chronic pulmonary congestion, chronic liver congestion, mixed thrombus, organized thrombus, infarction of spleen and kidney.

C. COURSE CONTENT

3h

1. Teaching method：experiment method

Chapter4 INFLAMMATION

A. OBJECTIVES：

Knowledge：

1.To grasp the definition and basic pathological changes of inflammation.

2.To grasp the pathological features of each kind of acute and chronic inflammation, and the outcomes of acute inflammation.

3.To grasp the process and result of inflammation.

4.To grasp biological purpose of inflammation.

5.To have a knowledge of the hemodynamic changes in acute inflammation, and the process and mechanism of leukocyte transmigration.

6.To have a knowledge of the origin and functions of inflammatory mediators.

Skills

At the end of the course the student will be able to:

Describe the pathological changes of common fibrinous inflammation and purulent inflammation.

B. COURSE CONTENT

1. Gross specimen: fibrinous pericarditis, pseudomembrans inflammation (diphtheria, bacillary dysentery) , abscess (lung, kidney, liver or brain), acute phlegmonous appendicitis, purulent meningitis, chronic cholecystitis.

2. Sections: acute phlegmonous appendicitis, pulmonary abscess, granulation tissue, nasal polyp.

C. COURSE CONTENT

3h

D. Teaching method：experiment method

Chapter5 NEOPLASM

A. OBJECTIVES：

Knowledge:

1.Remember the definition, morphological features and atypia of neoplasm.

2.Remember the nomenclature of neoplasm.

3.Remember the growth pattern and metastasis pathway of neoplasm.

4.Remember the differences between benign and malignant tumors, carcinoma and sarcoma.

5.Remember the definitions of precancerous lesion, dysplasia and carcinoma in situ, and the main examples of precancerous disease.

6.Understand the classification, grading and staging of neoplasm.

7.Understand the clinical effects of neoplasm on the host.

8.Understand the molecular mechanism of neoplasia.

9.Understand the epidemiology of neoplasia, especially environmental factors and heredity.

10.Understand the host defenses against tumors.

11.Understand the main morphological features of common tumors.

Skills:

At the end of the course the student will be able to:

Describe the pathological changes of common epithelial and mesenchymal tumors.

B. COURSE CONTENT

1. Gross specimen: squamous cell papilloma in the skin, fibroma, lipoma, angioma, leiomyoma, adenoma in the colon, serous cystic adenoma in the ovary, fibrosarcoma, osteogenic sarcoma, squamous cell carcinoma in the penis, adenocarcinoma in the colon, malignant melanoma, mature terotoma in the ovary.

2. Sections: squamous cell papilloma in the skin, adenoma, leiomyoma, breast cancer, fibrosarcoma, squamous cell carcinoma.

C. COURSE CONTENT

6h

1. Teaching method：experiment method

Chapter6 DISEASES OF THE CARDIOVASCULAR SYSTEM

A. OBJECTIVES

Knowledge

1.Grasp the etiology, pathogenesis, morphology, and clinicopathological correlation (including important complications) of rheumatism, infective endocarditis, valvular heart disease, hypertension, atherosclerosis and ischemic (coronary) heart disease.

2. Grasp the pathological changes of rheumatic heart disease. Chronic valvular heart disease effects on hemodynamics. Pathology and consequences of every stage of hypertension. Basic pathology of atherosclerosis. Type, pathology and consequences of coronary heart disease (atherosclerosis).

3. Be familiar with the etiology, pathogenesis, spread pathway, pathology and clinicopathological correlation of myocarditis and cardiomyopathy.

Skills

At the end of the course the student will be able to:

Master the morphological changes of rheumatism, infective endocarditis, hypertension, atherosclerosis and ischemic (coronary) heart disease.

B. COURSE CONTENT

1.Gross specimen: acute rheumatic endocarditis, acute rheumatic pericarditis, infective endocarditis, hypertension heart disease and atherosclerotic heart disease.

2.Slices: acute rheumatic myocarditis, atherosclerosis, arteriosclerotic atrophic kidney, myocardial infarction.

C. COURSE CONTENT

6h

1. Teaching method：experiment method

Chapter7 DISEASES OF RESPAIRATORY SYSTEM

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1.Grasp the etiology, pathogenesis, pathological lesion, and clinicopathological features of chronic obstructive pulmonary diseases (including chronic bronchitis, emphysema, bronchial asthma, and bronchiectasis).

2.Grasp the etiology, pathogenesis, pathological lesion, and clinicopathological features of silicosis, chronic cor pulmonale, pneumonia, acute respiratory failure, nasopharyngeal carcinoma and bronchial pulmonary carcinoma.

Skills

At the end of the course the student will be able to:

Grasp the morphological changes of chronic obstructive pulmonary diseases (including chronic bronchitis, emphysema and bronchiectasis), silicosis, pneumonia, nasopharyngeal carcinoma, bronchial pulmonary carcinoma.

B. COURSE CONTENT

1.Gross specimen: emphysema, chronic cor pulmonale, pneumonia, bronchiectasis, silicosis, and bronchial pulmonary carcinoma.

2.Sections: chronic bronchitis, emphysema, chronic cor pulmonale, pneumonia, bronchiectasis, silicosis, nasopharyngeal carcinoma and bronchial pulmonary carcinoma.

C. COURSE CONTENT

6h

1. Teaching method：experiment method

Chapter8 DISEASES OF THE DIGESTIVE SYSTEM

A. OBJECTIVES

Knowledge

At the end of the course students will be able to:

1.Understand the etiology, pathogenesis, pathological changes and clinicopathological correlations of carcinoma of the esophagus, gastritis, peptic ulcer, carcinoma of the stomach, ulcerative colitis, appendicitis and carcinoma of the large intestine.

2.Understand the etiology, pathogenesis, pathological changes and clinicopathological correlations of viral hepatitis, liver cirrhosis, primary carcinoma of the liver.

3.Have a knowledge of the etiology, pathogenesis, pathological changes and clinicopathological correlations of acute pancreatitis.

Skills

At the end of the course students will be able to:

1. Master the pathological characteristics of chronic atrophic gastritis in gross view and microscopically.

2. Master the pathological changes of peptic ulcer of the stomach in gross view and microscopically.

3. Master the pathological characteristics of all types of appendicitis in gross view and microscopically.

4. Master the pathological changes of carcinoma of the digestive system in gross view and microscopically.

(1) Master the pathological changes of carcinoma of the esophagus.

(2) Master the pathological changes of carcinoma of the stomach.

(3) Master the pathological changes of colonic carcinoma.

B. COURSE CONTENTS

1. Gross specimen: chronic gastric ulcer, viral hepatitis, hepatocirrhosis (portal, postnecrotic and billiary cirrhosis), carcinoma of the esophagus，stomach, colonic carcinoma, primary carcinoma of the liver.

2.Sections: chronic gastric ulcer, viral hepatitis, hepatocirrhosis (portal, postnecrotic cirrhosis), carcinoma of stomach, primary carcinoma of the liver.

C. COURSE CONTENT

6h

1. Teaching method：experiment method

Chapter9 LYMPHATIC AND HEMATOPOIETIC SYSTEM DISEASE

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

Grasp the basic concepts regarding: malignant lymphoma, leukemia, malignant histiocytosis.

Skills

At the end of the course the student will be able to:

Grasp the morphological changes of malignant lymphoma.

B. COURSE CONTENT

1. Gross specimen: relative specimen of malignant lymphoma (including Hodgkin's disease and non-Hodgkin's lymphoma).

2. Sections: malignant lymphoma (non-Hodgkin's lymphoma), Hodgkin's disease.

C. COURSE CONTENT

2h

1. Teaching method：experiment method

Chapter11 DISEASES OF URINARY SYSTEM

A. OBJECTIVES

(1) To master the etiology, pathogenesis, pathological changes, clinical and pathological relations of glomerulonephritis and pyelonephritis.

(2) Familiar with the etiology, pathogenesis, pathological changes, pathological and clinical links of kidney and bladder tumors.

(3) Key points: Pathological and clinicopathological links between diffuse glomerulonephritis and chronic pyelonephritis.

B. COURSE CONTENT

Gross specimens: chronic glomerulonephritis, chronic pyelonephritis, renal cancer, bladder cancer.

Sections: acute diffuse glomerulonephritis, rapid progressive glomerulonephritis, chronic pyelonephritis, papilloma of bladder, clear cell renal cell carcinoma of kidney.

C. COURSE TIME

3h

D．Teaching method：experiment method

Chapter12 DISEASES OF THE REPRODUCTIVE SYSTEM

A. OBJECTIVES

Knowledge

1. Grasp the etiology, pathogenesis, pathomorphology, clinicopathological features of carcinoma of the breast and cervical carcinoma.

2. Grasp the etiology, pathogenesis, pathomorphology, clinicopathological features of carcinoma of endomertrial adenocarcinoma, hydatidiform mole and choriocarcinoma.

3. Grasp the pathological features of cervical carcinoma and carcinoma of the breast.

Skill

Grasp the morphological changes of carcinoma of the breast, cervical carcinoma, endomertrial adenocarcinoma, hydatidiform mole and choriocarcinoma.

B. COURSE CONTENT:

1.Gross specimen: cervical carcinoma, hydatidiform mole, invasive mole, chriocarcinoma, carcinoma of the breast, ovarian cysts.

2.Sections: hydatidiform mole, choriocarcinoma, cervical carcinoma of the cervix, carcinoma of the breast.

C. COURSE CONTENT

2h

1. Teaching method：experiment method

Chapter13 DISEASES OF THE ENDOCRINE SYSTEM

A. OBJECTIVES

Knowledge

1. Be familiar with the etiology, pathogenesis, pathology, the clinico-pathological relationship of simple goiter, hyperthyroidism, thyroid carcinoma, hyperadrenocorticism, adrenocortical insufficiency, and diabetes mellitus.

2. Be familiar with the hyperpituitarism, etiology and pathology of thyroid tumor, the classification of thyroid tumors, the classification of adrenocortical tumors, the pathology of islets and various organs and tissues in diabetes mellitus.

Skill

Grasp the morphological changes of simple goiter, hyperthyroidism, thyroid carcinoma, hyperadrenocorticism, adrenocortical insufficiency, and diabetes mellitus.

B. COURSE CONTENT:

1. Gross specimen: diffuse colloid goiter, nodular goiter, exophthalmic goiter. Hasimoto’s thyroiditis. islet cell adenoma. Adrenocortical adenoma. thyroid adenocarcinoma.

2. Sections: nodular goiter, Hasimoto’s thyroiditis. exophthalmic goiter, papillary adenocarcinoma of the thyroid.

C. COURSE CONTENT

3h

D.Teaching method：experiment method

Chapter14 DISEASES OF THE NERVOUS SYSTEM

A. OBJECTIVES

Knowledge

1. Master the pathogenesis, mechanisms, pathological changes and effects of Alzheimer’s disease and Parkinson’s disease.

2. Be familiar with the nervous system neoplasia.

3. Be familiar with the pathogenesis, mechanisms, pathological changes of the complication of nervous system diseases.

Skill

1. Be familiar with the morphological changes of Alzheimer’s disease, Parkinson’s disease and nervous system neoplasia.

B. COURSE CONTENT:

1.Gross specimen: cerebral hemorrhage, cerebral edema, epidemic encephalitis type B, epidemic cerebrospinal meningitis and cerebral glioma.

2.Section: epidemic encephalitis type B, epidemic cerebrospinal meningitis.

C. COURSE CONTENT

2h

D.Teaching method：experiment method

Chapter15 INFECTIOUS DISEASES

A. OBJECTIVES

Knowledge

At the end of the course the student will be able to:

1. Master the basic pathological changes and describe the progression of tuberculosis, the pathogenesis, development and characteristics of different types of primary and secondary pulmonary tuberculosis. Master the pathological changes, the relationship of pathological characteristics to clinical manifestations of typhoid fever and bacillary dysentery.

2. Master the etiology, infectious routes, pathogenesis, pathological changes and the relationship of pathological characteristics to clinical manifestations of amoebiasis.

3. Be familiar with the etiology, infectious routes, pathogenesis, pathological changes and the relationship of pathological characteristics to clinical manifestations of sexually transmited diseases, including syphilis, gonorrhea, condyloma acuminatum.

Skills

At the end of the course the student will be able to:

1. Master the morphological changes of tuberculosis, typhoid fever, bacillary dysentery, amoebiasis and syphilis.

2. Be familiar with the morphological changes of gonorrhea, condyloma acuminatum.

B. COURSE CONTENT

1. Gross specimen: primary pulmonary tuberculosis, chronic fibrotic cavitary tuberculosis, caseous pneumonia, military tuberculosis, extrapulmonary tuberculosis, bacillary dysentery, typhoid fever, ameobiatic dysentery, extraintestinal ameobiasis.

2. Slices: pulmonary military tuberculosis, renal tuberculosis, typhoid fever, bacillary tuberculosis, ameobiasis.

C. COURSE CONTENT

6h

1. Teaching method：experiment method