UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Pathology

2122-4-H4101D264

Aims

The aim of the course, organised in two modules (A and B), is to take the student to learn the pathologic basis of organ and system diseases, and he/she should be able to integrate macroscopic, histological, and cytological morphology with the clinical assay. Finally, he must know the role, the professional tasks, and the responsability of the pathologist, thus prosecuting a useful relationship with medical and surgical specialists.

Contents

Macroscopic and microscopic morphological basis of diseases of the following: cardiovascular system (atherosclerosis, ischemic cardiopathy, myocarditis, pericarditis, endocarditis), respiratory system (infectious diseases, lung tumours), gastrointestinal system (chronic gastritis, inflammatory bowel disease, tumours and preneoplastic lesions of the stomach and the intestine), haemolymphopoietic system (lymphomas, lymphadenitis, bone marrow pathology), urinary and male genital system (tumours of kidney, bladder, prostate, and testis), female genital tract (preinvasive and neoplastic lesions of the cervix, uterine body and ovarian tumours), bones, joint and soft tissue, endocrine system (endocrine dysfunctions and tumours of thyroid gland, tumours of parathyroid and adrenal glands), nervous system (cerebral infarct, endocranial haemorrhages, tumours, neurodegenerative and infectious diseases), skin (melanoma and carcinomas), mammary gland (breast tumours). Relationship with laboratory and imaging diagnostic data. Prognostic and therapeutic outcomes of pathological diagnosis.

Detailed program

CARDIOVASCULAR PATHOLOGY -Pathological bases, macro- and microscopic evolutionary aspects and complications of myocardial infarction and chronic ischemic cardiopathy - Morphological classification of

endocarditis, myocarditis, pericarditis and cardiomyopathies

RESPIRATORY SYSTEM PATHOLOGY - Pulmonary granulomatous diseases: primary and post-primary tuberculosis and sarcoidosis. - Histological and cytologic diagnosis of pulmonary neoplasia, histological classification of lung neoplasia - Histomorphological features of pleural mesotelioma

PATHOLOGY OF THE DIGESTIVE SYSTEM - Histological diagnosis on endoscopic biopsy of non-neoplastic pathologies of the gastrointestinal apparatus: esophagitis, gastritis, celiac disease, IBD. - Classification and morphology of precancerous lesions of esophagus, stomach and intestine - Morphological bases and anatomopathological staging of esophageal, gastric and intestinal neoplasms - Definition and histological classification of intestinal polyps - Histological classification of exocrine and endocrine pancreatic tumors – Diagnostic applications of hepatic biopsy

PATHOLOGY OF THE HEMATOPOIETIC AND LYMPHOID TISSUES - Overview of differential diagnosis of lymphadenitis - Pathological classifications of Hodgkin's and non-Hodgkin's lymphomas. - Pathological staging of lymphomas, diagnostic role of bone marrow biopsy

ENDOCRINE PATHOLOGY - Morphological bases of thyroid nodules - Histological classification and characteristics of thyroid neoplasias; validity and limits of cytological diagnostics - Morphological bases of differential diagnosis between hyperplasia, benign neoplasias and malignant neoplasias in endocrine pathology

PATHOLOGY OF URINARY SYSTEM AND MALE GENITAL ORGANS- Histological classification, morphological characteristics, evolution and staging of carcinoma of the kidney, prostate, testis and bladder

NEUROPATHOLOGY - Etiopathogenesis, morphology and evolution of intracranial hemorrhages and cerebral infarction - Pathological bases of cerebral infectious pathologies (meningitis, meningoencephalitis, encephalitis, abscess) - Histological classification and anatomopathological diagnosis of neoplasms of the central nervous system - General overview and morphology of neurodegenerative diseases and prion diseases.

DERMATOPATHOLOGY – More frequent skin epithelial neoplasms - Morphological characteristics of benign nevi, dysplastic nevi and melanomas. Minimal criteria for differential diagnosis - Histological classification and staging of melanomas.

BONE AND SOFT TISSUE TUMORS- Classification and anatomopathological characteristics of bone tumors, particularly osteoma, osteochondroma, chondroma, osteosarcoma, chondrosarcoma, giant cell tumor and Ewing sarcoma - histogenesis, morphological criteria of benignity and malignancy, grading of sarcomas

BREAST PATHOLOGY - Epidemiology, pathogenesis, evolution, histological classification and pathological prognostic factors of breast cancer - Diagnostic role of fine-needle cytology, core biopsies and frozen sections

PATHOLOGY OF THE FEMALE GENITAL APPARATUS - - Role of HPV in the etiopathogenesis of cervical carcinoma and evolution of the concept of SIL (intraepithelial squamous lesion) - Epidemiological and pathological features, histological classification, staging and natural history of carcinoma of the uterine cervix - Diagnostic role of the pap test and cervical biopsy in colposcopy - Definition of simple and atypical glandular hyperplasia of the endometrium - Epidemiological and pathological features, histological classification, staging and natural history of endometrial adenocarcinoma - Diagnostic role of endometrial aspiration biopsies and curettage - Pathological features of myometrial leiomyomas - Pathological bases and complications of adenomyosis and endometriosis - Epidemiological and pathological features, histological classification, staging and natural history of ovarian neoplasms - Definition of borderline tumors - Role of histological examination of the placenta in fetal and perinatal pathology - Anatomopathological features of trophoblastic tumors

Prerequisites

Knowledge of the contents of the propedeutic courses

Teaching form

Frontal lessons

Practice with microscope

Lessons will be provided in presence, subject to any ministerial changes following the COVID pandemic situation

Textbook and teaching resource

Kumar V, Abbas A K, Aster J C; Robbins and Cotran Pathologic Basis of Disease Elsevier, 9th ed

The Teacher will provide additional educational materials

Semester

Second semester

Assessment method

Written test (22 multiple choice questions and 11 open questions with short answers; 1 point for each right answer, 0 point for each wrong or not done answer).

Office hours

By appointment, subject to agreement by phone or e-mail