

26717 - Diagnostic and Therapeutic Procedures: Anatomical-Pathological

Syllabus Information

Academic Year: 2019/20

Subject: 26717 - Diagnostic and Therapeutic Procedures: Anatomical-Pathological

Faculty / School: 104 -

Degree: 304 - Degree in Medicine

ECTS: 6.0

Year: 3

Semester: First semester

Subject Type: Compulsory

Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, laboratory sessions, seminars, and tutorials.

Students are expected to participate actively in class throughout the semester.

Further information regarding the course will be provided on the first day of class.

4.2.Learning tasks

The course includes the following learning tasks:

- Lectures.
- Laboratory session, Faculty of Medicine.
- Laboratory sessions, Clinic Universitary Hospital "Lozano Blesa".
- Guided essay.
- Formative seminar.
- Tutorials.

4.3.Syllabus

The course will address the following topics:

THEORETICAL PROGRAM:

A) GENERAL PATHOLOGY

- 1. Introduction and rules of the course
- 2. Cellular Pathology. Necrobiosis. Necrosis.
- 3. Lipid metabolism disorders, protein, calcium and uric acid. Pigment deposition disorders
- 4. Circulatory disorders: hyperemia, hemorrhage, edema, thrombosis, embolism, Heart attack.
- 5. Acute and Chronic Inflammation. Granulomatous inflammation. Reparative growth: Regeneration and healing. Infectious disease.
- 6. Immunopathology. Immunodeficiency. Autoimmune diseases. Immuno-Pathology is related to transplantation. Transplant rejection. Graft-Versus-Host Disease (GVHD).
- 7. Abnormalities of fetal and adult development. Growth disorders, cell differentiation and adaptive cellular changes: regeneration, hypertrophy, hyperplasia, metaplasia and dysplasia. Pre-malignant lesions. Intraepithelial neoplasia. Characteristics of neoplastic cells.
- 8. Neoplastic Growth: spread, invasion and metastasis. Grade and staging. Pathogenesis and carcinogenesis.
- 9. Benign Epithelial Neoplasms.
- 10. Epithelial Malignancies
- 11. Mesenchymal Neoplasms.
- 12. Genetic Pathology. Genetic-Molecular onco-pathology. Therapeutic targets.

B) SPECIAL PATHOLOGY ORGANS, APPARATUS AND SYSTEMS:

- 1. Cardiovascular Pathology. Endocarditis. IHD. Pericarditis. Cardiomyopathies. Arteriosclerosis. Arteriolosclerosis. Aneurysms. Vasculitis. Hypertension.
- 2. Pathology of the respiratory system. COPD, Bronchitis, Emphysema. Bronchiectasis. Atelectasis. Pneumonia, bronchopneumonia, restrictive lung diseases. Neoplasias. malignant pleural pathology.
- 3. Gastrointestinal disorders. Esophageal reflux esophagitis reactive and Barrett's esophagus. Stomach: gastropathy associated with HP: gastritis, atrophy, intestinal metaplasia, adenocarcinoma and MALT lymphoma. Small intestine: Celiac disease. Inflammatory bowel disease. Thickness: polyps, polyposis and colorectal carcinoma.

Pancreas: pancreatitis, exo and endocrine neoplasia.

Liver: hepatitis, cirrhosis and neoplasms. Biliares.

- 4. Pathology of the nervous system. inflammatory disease, degenerative and neoplastic CNS and periférico.
- 5. Skin diseases: Injuries melánicas.
- 6. endocrine pathology. Neoplasms pituitary, thyroid, parathyroid and adrenal. Thyroid hyper- and hypothyroidism, thyroiditis, goiter and Hyperplasia.
- 7. lymph node pathology. Lymphadenitis/lymphadenopathy. Metastasis. Nodalesy extranodal lymphomas. Hodgkin's and non-Hodgkin's lymphoma. hematological malignancies primary bone marrow. Leukemias. Mieloproliferativos.
- 8 Syndromes. renal disease: glomerulonephritis, pyelonephritis. renal neoplasms. urologic pathology. Bladder urothelial carcinoma. Prostate nodular hyperplasia and carcinoma. Testis: infertility, neoplasias.
- 9. Obstetric Pathology: Abortion. Ectopic pregnancy. Disorders, infections and neoplasms Placenta and Cord. Maternal-fetal. Vascular disorders gestational trophoblastic disease.

Gynecological pathology: Utero: alterations of the endometrium, myometrium and endocervix: benign and malignant: Cervical cancer. Ovarian cysts and solid tumors. Vulva: inflammatory and neoplastic diseases. Vagina infections and malignancies.

Breast: EQF, fibroadenoma and cáncer.

- 10. Bone Pathology: Fractures and repair. Osteonecrosis. Pseudotumoral tumors and lesions.

Joint disease: arthrosis and arthritis. pseudotumoral and cystic lesions. Synovitis and tenosynovitis

PRACTICAL PROGRAM

A) macro-microscopic laboratory practices: General Pathology Program gross and microscopic lesions.

- Practice 1. Metabolism and pigment deposits, calcium and uric acid.
- Practice 2. Circulatory disorders and tissue necrosis.
- Practice 3. Inflammation, regeneration and healing. TBC. Immunopathology.
- Practice 4. Alterations of cell growth and differentiation. benign and malignant neoplasms.

- Practice 5. epithelial and mesenchymal neoplasms. and melanic vascular neoplasms.
- Practice 6. Pathology practice Cardiovascular System
- Practice 7. Pathology of the Respiratory System
- Practice 8. Digestive Pathology
- Practice 9. Pathology of the Nervous System
- Practice 10. Pathology of the Endocrine System
- Practice 11. Lymphatic System
- Practice 12. Pathology of the Nefro-Urologic and Male Genital Apparatus
- Practice 13. Pathology of the Gynecological System

B) Supervised Work

In the macro-microscopic rooms (1 and 2 of Pathology), Faculty practices, students will work with a notebook in which they will draw lesions observed microscopically and the teacher will monitor throughout classes practical course.

There is a notebook of practices of the subject that is available in reprographics, but not required and could be used to buy any other

C) The practice of hospital surgical pathology: Consist attend, a day on the course, the Department of Pathology of the University Hospital "Lozano Blesa" in order to know the procedure of handling biopsies and surgical specimens received in the service. Subsequently, students will learn through microscopic study assisted by the camcorder, histopathologic aspects of a representative selection of some of the pieces that saw the study, carve and sample macroscopically.

This approach to knowledge of processes and procedures of the Department of Pathology is not directly subject to the practical test, but it is a tool that contributes to the overall formation of the student in Pathology.

SEMINAR PROGRAMME: It consists of a seminar by each of the following organs and systems:

- 1. Cardiovascular
- 2. Respiratory
- 3. Digestive
- 4. Nervous System
- 5. Liver
- 6. Endocrine
- 7. Lymphatic and Hematopoietic
- 8. Nefro-Urologic and Male Genital
- 9. Gynecologic
- 10. Bone-Articular

TUTORING: Students can discuss issues related to the study of the subject, in person, by appointment with Professor directly or via e-mail

4.4.Course planning and calendar

<https://medicina.unizar.es/tercer-curso>

4.5.Bibliography and recommended resources

- http://www.unizar.es/departamentos/anatomia_patologica
- <http://wzar.unizar.es/acad/patologia/>
- <http://psfunizar7.unizar.es/br13/privado/index.php>