C.I. Anatomia patologica veterinaria

- **Anatomia patologica I 5 CFU; 60 ore: 45 di lezione e 15 di esercitazione**

Special Veterinary Pathology I

- **45 Hrs frontal lectures**
- **15 Hrs practical activities**

Learning outcomes: Aethiology, pathogenesis, gross and microscopic features of the more relevant diseases and disorders of the following systems or organ: nervous system, eye, ear, liver, pancreas, gastrointestinal tract, muscle, bone, joints, male and female genital system, endocrine glands. The student should acquire skills sufficient to identify a lesion, describe it using the appropriate terminology, and plan a differential diagnosis.

Frontal lessons

Topics and skills acquired	General topics	Specific topics	hrs
1 INTRODUCTION TO VETERINARY PATHOLOGY AND TO THE COURSE (TOT. 2 HOURS) *Knowledge on [a] the course organization; [b] methods in veterinary pathology; [c] the practical implication of veterinary pathology*	***Information on the course***	Presentation of the course and explanation on the organization of the practical part. Presentation of the procedures concerning the student evaluation during the examination. Diagnostic techniques in veterinary pathology (gross exam, light microscopy, electron microscopy, immunohistochemistry, molecular biology). The job of veterinary pathologists.	2
	Lesion description	What is a lesion? The appropriate terminology to describe a lesion. Description, interpretation and diagnosis.	
2 LIVER PATHOLOGY (TOT. 11 HOURS) *[As for liver diseases, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*		Anatomy and physiology remnants. Physiopathology of liver failure.	1
	Congenital abnormalities	Post mortem changes. Growth anomalies. Portosystemic shunts.	1
	Regressive changes	Liver ectopy. Liver rupture. Atrophy. Regressive changes: steroid hepatopathy, lipidosis, amiloidosis. Pigmentary changes: lipofuscinosis, haemosiderosis, jaundice. Toxicosis of the liver. Necrosis of the liver: causes, pathobiology, examples	2
	Circulatory disorders	Circulatory disorders: hyperaemia, thrombosis, portal hypertension, Budd-Chiari syndrome, telangiectasis.	1
	Growth disorders	Nodular hyperplasia, Kisselev nodules.	2
		Hepatic fibrosis.	
		Hepatic cirrhosis and biliary cirrhosis	
		Primary and secondary liver tumours.	

	Inflammation	Acute, chronic and granulomatous hepatitides. Serous hepatitis. Leprospirosis. Viral hepatitis. CAV1. MEV/BHES. Suppurative hepatitis. Chronic hepatitis. Cholangitis and cholangiohepatitis. Tuberculosis and other granulomatous hepatitides.	2
	Parasitic disorders	Parasitic disorders of the liver: coccidiosis, distomatosis, echinococcosis, cysticercosis, microascaridiosis.	2
3 PATHOLOGY OF PANCREAS (TOT. 2 HOURS) *[As for pancreas disorders, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*	***Pancreas Pathology***	Regressive lesions. Atrophy, necrosis. Pancreatitis. Tumours.	2
4 PATHOLOGY OF THE ENDOCRINE SYSTEM (TOT 4 HOURS) *[As for endocrine system disorders, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*		Physiopathology of endocrine failure.	0,5
	Pathology of the pituitary gland	Cysts, inflammation, functional and non functional tumours. Pituitary dwarfism and gigantism	0,5
	Pathology of the adrenals	Adrenals: regressive changes, inflammation, hypertrophy, tumours, the Cushing sundrome.	1
	Pathology of the thyroid gland	The thyroid: goitre, tiroiditis, tumours	1,5
	Pathology of the parathyroid gland and other endocrinopathies	The parathyroid: hyperparathyroidism. Paraganglia: chemodectoma. Endocrine pancreas: diabetes mellitus, islet cell tumours.	0,5
5 MUSCOSKELETAL PATHOLOGY (TOT 7 HOURS) *[As for muscoskeletal diseases, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis*	***Bone diseases***	Skeletal deformities, metabolic osteopathies, osteomalacia, rickets, osteoporosis, fibrous osteodistrophy. Hypertophic osteopathy. Osteitis. Osteosarcoma.	2

and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]	***Muscle diseases***	Congenital myopathies, myodistrophies, nutritional myopathies, excertional myopathies.	1
		Myosistis: suppurative, gangrenous, eosinophilic, granulomatous.	1
		Parasites of muscles: sarcosporidiosis, toxoplasmosis, cysticercosis, trichinellosis	1,5
		Primitive and metastatic tumors of muscles	0,5
	Joint diseases	Arthrosis, arthritis, tumours	1
6 PATHOLOGY OF THE REPRODUCTIVE SYSTEM. (TOT 4 HOURS) *[As for genital diseases, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*	***Pathology of the Male genital system***	Cryptorchidism, orchitis, tumours of the testis, prostatic cysts, prostatic hyperplasia, prostatitis, prostatic neoplasms. Tranmissible venereal tumour. Penis carcinoma.	2
	Pathology of the Female genital system	Ovarian cysts, ovarian neoplasms, cystic endometrial hyperplasia, endometritis, pyometra, metritis, uterine tumours.	2
7 PATHOLOGY OF THE NERVOUS SYSTEM (TOT 7 HOURS) *[As for nervous system disorders, knowledge on:*	***Pathology of the nervous system.***	Anatomy and physiology remnants. Elementary lesions	0,5
		Congenital and inherited diseases. Hydrocephalus.	0,5

a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]		Circulatory disorders. Active and passive hyperemia. Embolia, ischemia and infarction. Cerebral edema.. CNS hemorrhage.	1
		Neurodegenerations. Polioencephalomalacia. Leucoencephalomalacia. Hepatic encephalopathy. Neurotoxicosis. Spongiform encephalopathies.	1
		Encephalitis and encephalomyelitis. Meningitis. . (non suppurative, suppuratibe and granulomatous).	2
		Parasites of the nervous system.	1
		Tumours of the central and peripheral nervous system.	1
8 PATHOLOGY OF THE GASTROINTESTINAL SYSTEM (TOT 6 HOURS) *[As for gastrointestinal systrem diseases, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*	***Pathology of the oral cavity, pharynx, oesophagus, stomach and prestomachs***	*Oral cavity and pharynx*: congenital abnormalities. Stomatitis. vesicular stomatitis: footh and mouth disease, malignant catarrhal fever. Uremic stomatitis. Eosinophilic feline ulcera. Oral tumors. *Teeth*: congenital abnormalities, periodontitis. Tonsillitis. Sialoadenitis.Salivary gland tumors. *Oesophagus*: malformations, fistulas, hernias, diverticulas, stenosis, megaesophagus, oesophagitis, parasites (sarcosporidiosis, spirocercosis), tumors.*Prestomach*: foreign bodies, acute and deep ruminitis, parasites, tumors. *Stomach/abomasum*. Gastric torsion and abomasum displacement. Gastric ulceration. Swine gastroesophageal ulcer. Bovine abomasal ulcer. Gastritis/abomasitis. Parasites. Tumors.	3
	Pathology of the intestine and the peritoneal cavity	*Intestine*. Congenital abnormalities. Bowel displacement. Cystic pneumatosis. Foreign bodies. Enteritis. Diarrhea physiopathology. Enteritides of the bovine (coronavirosis, rotavirosis, BVD-MD, colibacillosis, salmonellosis, paratubercolosis), swine (TGE, colibacillosis, salmonellosis, Lawsonia intracellularis), horse (X colitis, salmonellosis), dog (parvovirosis), cat (parvovirosis, coronavirosis), rabbit (Tyzzer disease, mucoid enteropathy, pseudotubercolosi) and sheep (colibacillosis, clostridiosis, paratubercolosis, yersiniosis). Intestinal parasites. Coccidiosis. Teniasis. Strongilosis. Ascaridiosis. Intestinal tumors. *Peritoneal cavity*. Abnormal contents. Ascites. Peritonitis. FIP. Mesothelioma.	3

9 EYE AND EAR PATHOLOGY (TOT. 2 HOURS) *[As for eye and ear diseases, knowledge on: a) the pathologic entities; b) the macroscopic features, the proper morphologic diagnosis and, if applicable, also etiology and the name of the disease; c) the etiopathogenesis]*	***Eye and ear pathology***	*Eye.* Blefaritis. Congiuntivitis. Keratitis. Uveitis. Cataratta. Glaucoma. Retinic degeneration. Eye neoplasms. Ear. Otoematoma. Otitis.	2
ESERCITAZIONI			
Temi e competenze acquisite	**Argomenti**	**Contenuti specifici**	**Ore**
10. APPLIYNG KNOWLEDGE AND UNDERSTANDING; MAKING JUDGEMENTS (TOT. 15 HRS) *[Acquisition of a) skills on the identification of the macroscpic morphologic variations of organs; b) ability to identify a lesion and to use a proper terminology; c) ability to give a diagnosis]*	***Gross pathology***	Practices of gross pathology on viscera from slaughterhouses and necropsies. General notions for the examination of an isolated organ. Safety measures to be taken during the examination of isolated organ and before, during and after a necropsy. The comparison with the normal anatomy for the detection of a lesion. Increase and decrease in volume. Diffuse and focal lesions. The external examination. Section and examination of the cut surface. Content and containing. External examination of the carcass. Skinning, opening large cavities, extraction of the viscera. Practices are partly held in the anatomic amphitheater with interactive discussion of the observed findings and partly independently in the dissecting room under supervision of prosecutors	14
		Visit to the museum of veterinary pathological anatomy and teratology	1