



UNIVERSIDADE DE LISBOA
Faculdade de Medicina Veterinária

Anatomical Pathology I

Curricular Year: 2nd

Duration: 2nd Semester

Credits: 6 ECTS

Teachers: Jorge Correia (CCP); Fernando Afonso (R); Hugo Pissarra; Rute Noiva.

Contact Hours: 88H Total.

49H Lectures; 39H Practical and laboratory teaching.

Learning objectives:

General Pathology

To describe, quantify and classify general and basic lesion at the cell, tissue and organ levels. To collect, preserve and send biological material for laboratory exam. To relate both macroscopic and microscopic changes with the etiologic agents. To understand and to interpret the dynamic evolution of the lesions. To explain the complexity and the modulation processes of the adaptation process and reactive pathogenic mechanisms of lesions.

Pathological Anatomy I

A) Cognitive skills: define the types of response to aggression of each organ and system; identify and describe the most common injuries, establishing the cause-effect relationship and the degree of dysfunction they imply.

B) Technical skills: Writing a backstory. Know how to perform the necropsy technique on different animal species. Collect, preserve and send material for additional examinations. Write a report using appropriate language and, if possible, conclude on the causes of death.

Program contents:

Theoretical Program

General Pathology

Cellular pathology: cell injury and cell death. Cell adaptation. Metabolic disorders: lipid, protein, carbohydrate, calcium, and pigment metabolism. Hemodynamic disorders - thrombosis, embolism, infarction and shock. Tissue responses to damage: protective mechanisms of tissues and organs; acute, chronic and granulomatous inflammatory responses. Neoplasia.

Pathological Anatomy I

Necropsy technique in companion animals and birds. Terminology of macroscopic lesions. Cadaveric or post mortem changes. Pathology of the cardiovascular, digestive, liver and biliary tract, pancreas. Peritoneum and retroperitoneum. Locomotor system. Hematolymphopoietic organs. Neoplasia.

PRACTICAL PROGRAM:

General Pathology

Anatomohistopathological examination of lesions of organs and tissues.

Pathological Anatomy I

Animal necropsy technique. Histopathological observation and observation of preserved pieces. Collection and sending biological samples for additional diagnostic tests.



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Bibliography:

Peleteiro, M.C. et al. (2011). Atlas de Citologia Veterinária. Lidel – edições técnicas, Lda. ISBN: 978-972-757-728-6.

Peleteiro, M.C. et al. (2016). Atlas de Anatomia Patológica Veterinária (<http://www.fmv.ulisboa.pt/atlas/atlas.htm>).

Peleteiro, M.C. et al. (2016). Manual de Necrópsia Veterinária. Lidel - edições técnicas, Lda. ISBN: 978-989-752-196-6.

Peleteiro, M.C., Silva, J.F., Correia, J.J. & Durão, J.F. (2024). Apontamentos de Anatomia Patológica. FMV.

Gil, J.I. (2000). Manual de Inspeção Sanitária de Carnes. II Volume. 2ª Edição. Fundação Calouste Gulbenkian, Lisboa.

Robbins & Cotran (2020). Pathologic Basis of Disease, 10th Edition, Elsevier, ISBN: 9780323531139.

Zachary, J. (2021). Pathologic Basis of Veterinary Disease. Mosby, U.S.A., ISBN: 9780323075336. Website de consulta obrigatória: <https://secure.vet.cornell.edu/nst/nst.asp>. Author Prof. John King, School of Veterinary Medicine, University of Cornell, U.S.A.

Assessment:

General Pathology

The knowledge acquired by the students is assessed through a written test with true or false, multiple choice, and short answer questions about theoretical and practical topics.

Anatomical Pathology I

The assessment of the theoretical component is accomplished through a written final exam with short answer, multiple-choice questions (MCQ), true and false, 15% of essay questions.

The practical component is evaluated:

1. In a continuous assessment during practical classes, including individual registration (attendance sheet) and group reports of tests performed.
2. In a practical final exam where students drawn from a set of tasks previously accomplished in practical classes one task to perform.

The final classification is obtained using the formula: $CF = 0,5 T + 0,2 P + 0,3$ (group work)

The student evaluation is also important to assess the efficiency of the teaching-learning methodologies, in compliance with the UC objectives, and to allow future adequate adjustments on the teaching methodologies and/or on the assessment of student's knowledge and skills.