

Syllabus

Teaching: Necropsy Techniques and Post Mortem Diagnosis (2 CFU; 24 hours: 12 of lectures and 12 [x4] of practical lessons)

Course Objectives: to guide the student in the performance of autopsy techniques, gross diagnosis and methods of sampling for cytological and histopathological investigations, useful to recognize and/or diagnosing a disease or the cause of death of an animal.

Lectures

Topics and skills acquired	Topics	Specific content	Hours
<p style="color: red; text-align: center;">1. PRESENTATION OF COURSE, DEFINITION, PURPOSE AND LIMITS OF NECROPSIES; THANATOLOGY (TOTAL 2 HOURS)</p> <p style="text-align: center;">[Acquisition of:</p> <p style="margin-left: 20px;"><i>a) knowledge about the course;</i></p> <p style="margin-left: 20px;"><i>b) the correct terminology to define the necropsy and its procedures;</i></p> <p style="margin-left: 20px;"><i>c) knowledge of the purposes and limitations of the necropsy;</i></p> <p style="margin-left: 20px;"><i>d) knowledge of the post-mortem phenomena to differentiate from injury or to determine the time of death]</i></p>	<p>Presentation of the course.</p> <p>Meaning, scope and limits of autopsies</p>	<p>Time and methods of theoretical and practical lessons, classrooms, objectives, textbooks and the final exam. Knowledge and skills to be achieved. Meanings of autopsy and necropsy. Historical notes on the evolution and importance of autopsies in medical practice. Objectives and limitations of the autopsy. Why, how and where to do an autopsy.</p>	1
<p style="color: red; text-align: center;">2. TOOLS, PLACES AND PRECAUTIONS DURING NECROPSY; RULES AND REGULATIONS; MANAGEMENT OF DIED ANIMALS (TOTAL 1 HOUR)</p> <p style="text-align: center;">[Acquisition of:</p> <p style="margin-left: 20px;"><i>a) knowledge and choice of tools and places to perform a necropsy;</i></p> <p style="margin-left: 20px;"><i>b) knowledge of laws and regulations for the management of the carcasses after the necropsy]</i></p>	<p>Tools, precautions and regulations. The autopsy in a Autopsy Room and "in the field". The disposal of carcasses.</p>	<p>Abiotic immediate and consecutive post-mortem phenomena. The destructive phenomena and those with protective effect.</p> <p>Instruments. Precautions to be taken before, during and after a necropsy and related regulatory issues. Necropsy in the dissecting room and in the field of dog, cat, pig, cow, sheep, goat, horse, rabbit and laboratory animals. Management of carcasses of animals observed during necropsy and regulatory issues.</p>	1

<p>3. THE AUTOPSY AND ITS PHASES (TOTAL 5 HOURS)</p> <p>[Acquisition of:</p> <p><i>a) practical knowledge on the various stages of the autopsy;</i></p> <p><i>b) knowledge of opening and examination of body cavities, of extraction and examination of an isolated organ]</i></p>	<p>The beginning of the autopsy. Examination of the abdominal and pelvic cavities</p>	<p>Signalling and history. Accompanying card. Preparation, external examination, skinned and examination of the subcutaneous tissue. Opening and examination of the abdominal cavity.</p>	1
		<p>Extraction and examination of the spleen and omentum in domestic species. Extraction and examination of the liver and organs of the gastrointestinal system. Opening of the cavity of the pelvis; examination and removal of the organs of the urogenital system.</p>	1
		<p>General scheme of examination of isolated organs and general descriptive scheme of a detected lesion for gross pathological diagnosis.</p>	1
	<p>Examination of the chest cavity and neck</p>	<p>Opening and examination of the chest cavity; extraction of the organs. Examination and opening of the heart, lungs and bronchi, trachea and cervical organs.</p>	1
	<p>Examination of the head, nasal cavity and paranasal sinuses</p> <p>Extraction, examination of the eyeball.</p> <p>Opening the spinal canal for the examination of the spinal cord.</p> <p>Examination of the medullary cavity of long bones and bone marrow</p>	<p>Examination of the head, opening the skull, extraction and examination of the brain. Opening and examination of the nasal cavity and paranasal sinuses in domestic species.</p> <p>Extraction and examination of the eye. Opening and examination of the spinal canal and examination of the spinal cord. Opening and examining the medullary canal of the long bones to examine and remove the bone marrow.</p>	1

<p>4. LABORATORY INVESTIGATIONS; THE REPORTING, THE EXPERTISE AND MEDICO-LEGAL REPORT (TOT. 4 HOURS)</p> <p>[Acquisition of:</p> <p><i>a) knowledge on sampling of tissue for laboratory investigations;</i></p> <p><i>b) a method for the proper preparation of a report containing descriptions, summaries and details on laboratory tests required;</i></p> <p><i>c) basic knowledge about forensic examination at autopsy and how to draw up an expert report]</i></p>	Sampling for cytology techniques	Tissue sampling for cytological investigations.	1
	Sampling for histopathology. Sampling for microbiological, parasitological and toxicological investigations	Techniques of collection and submission of tissue for histological investigations. Sampling techniques of biological material for bacteriological and toxicological investigations.	2
	The autopsy report and the expert report.	The autopsy report. The expert report in a medical-legal autopsy.	1

Practical lessons

Topics and skills acquired	Topics	Specific content	Hours
<p>5. ABILITY TO MAKE CRAFTS AUTOPSY, OBSERVE, TO EXAMINE AND TAKE THE TISSUE INJURIES (TOTAL 12 HOURS)</p> <p>[Acquisition of:</p> <p><i>a) correct techniques to execution of an autopsy;</i></p> <p><i>b) a method for extracting organs and describe the lesions diagnostic purposes;</i></p> <p><i>c) appropriate methods of sampling of tissue for laboratory investigations]</i></p>	The external examination of the carcass and the instruments	The instruments used during the autopsy on soft tissue and hard tissue.	1
		Signalling. The external examination of a carcass and the post-mortal phenomenology. Skinning and examination of subcutaneous tissues.	1
	Opening techniques and examination of body cavities	Opening and examination of the abdominal cavity, pelvis and chest.	2
		Opening and examination of head, nasal cavity, spinal canal, and medullary cavity of long bones.	3
	The examination of isolated organ and sampling for laboratory tests.	Macroscopic examination of liver, spleen, stomach, intestines, kidneys, urinary bladder, external and internal genitalia, heart, lungs, great vessels, lymph nodes, thymus, brain, spinal cord, bone marrow, eye.	2
		Samples for microscopic examination with cytological needle aspiration, needle-fission, brushing, scraping, impression, crushing.	1
		Samples of tissue and lesions, fixed in buffered formalin for histological examinations.	1
		Sampling of tissue for microbiological, parasitological, toxicological investigations.	1