

Teaching: Veterinary Anesthesiology

(3 credits , 39 hours : 27 lectures and 12 [x4] exercise)

Course Objectives: Upon completion of the course students learn the basics of veterinary anesthesiology needed to conduct a general anesthetic procedure and a loco-regional procedure in large, small and non-conventional animals .

LECTURES

Topics and skills acquired	Topics	Specific contents	Hours
Opening lecture of the course		description of the course, its aims , guidance on the conduct of the theory and practice of presentation teaching materials , purpose of anesthesia, history of veterinary anesthesiology ;	1
<p>1 . ANESTHESIA TO LEAD : A) GENERAL ANESTHESIA</p> <p>(TOT. 7 HOURS)</p> <p>acquisition of :</p> <p>a) the correct clinical approach in relation to the changes induced by the anesthetic procedure</p> <p>b) knowledge of how the different anesthetic effects: injectable and inhalation anesthetics</p>	Introduction to anesthesiology	definition, terminology , the effects of anesthetic drugs , type of anesthesia , the patient's anesthetic classification	1
	general anesthesia:	general considerations , biological variations related to age , sex, race , concomitant diseases , etc. ; genetic variations	1
	general anesthesia:	fa dose-effect relationship , factors that influence the response to the administration of an anesthetic drug ; metabolism : special	1

		conditions ;	
	anesthetic agent :	recruitment, absorption and distribution of the anesthetic ;	1
		alveolar tension curve , partition coefficient , minimum alveolar anesthetic concentration of inhalation anesthetics;	1
		recruitment, absorption and distribution of the injectable anesthetic ;	1
		recruitment, absorption and distribution of the injectable anesthetics ;	1
<p>2. PERFORMING OF GENERAL ANESTHESIA :</p> <p>acquisition of : recognition phases of the anesthetic procedure</p>	<p>stages and levels of general anesthesia :</p>	<p>the recognition of the characteristic signs corresponding to the progressive changes that followed the administration of anesthetic drugs ;</p>	1

		stages and levels of general anesthesia :	the recognition of the characteristic signs corresponding to the progressive changes that followed the administration of anesthetic drugs ;	1
3.THE PRE- ANESTHETIC PERIOD: acquisition of : method of clinical evaluation and diagnostic collateral for the identification and classification of the patient under general anesthesia: 1	general anesthesia:	components , mixed techniques of anesthesia , anesthetic stages of the proceedings ;	1	
	the pre- anesthetic period:	the pre- anesthetic history collection , evaluation of the patient;	1	
	the pre- anesthetic period:	the pre- anesthetic physical examination , diagnostic side , the patient's physical status classification of anesthesia ;	1	
	the pre- anesthetic period:	the pre- anesthetic choice of anesthetic technique and protocol	1	
4 . MACHINES AND SYSTEMS FOR THE CONDUCTION OF AN INHALATION ANESTHESIA (TOT. 5 HOURS) : acquisition of : a) the principles, knowledge of the equipment and techniques to carry out	oro-tracheal intubation :	general principles , purpose , materials, technique	1	
	oro-tracheal intubation :	technical - species differences , alternative techniques, complications	1	
	equipment for inhalation anesthesia:	description of the individual components and their uses	1	

the oro-tracheal intubation in the various animal species;				
b) knowledge and applicability of the equipment useful in the conduct of an inhalational anesthesia ;	equipment for inhalation anesthesia:	description of the individual components and their uses; safety standards related to the use of anesthetics ;	1	
<p>4. APPARECCHI E SISTEMI PER LA CONDUZIONE DI UNA ANESTESIA INALATORIA (TOT. 5 ORE) :</p> <p>acquisizione di:</p> <p>a) dei principi , conoscenza dell'attrezzatura e delle tecniche per procedere alla intubazione oro-tracheale nelle varie specie animali;</p> <p>b) conoscenza ed applicabilità delle apparecchiature utili alla conduzione di una anestesia inalatoria;</p>	equipment for inhalation anesthesia:	equipment for inhalation anesthesia : description of the individual components and their uses	1	
<p>5 . APPARATUS AND SYSTEMS FOR INHALATION ANESTHESIA: (TOT. 2 hours)</p>	breathing circuits :	total and partial rebreathing circuits : description of the components, applicability , advantages, disadvantages	1	

<p>acquisition of :</p> <p>a) components and their appropriate use in the conduct of inhalation anesthetics in any animal species</p>	<p>breathing circuits :</p>	<p>non-rebreathing circuits : components description , applicability , advantages, disadvantages 1</p>	<p>1</p>	
<p>6 . LOCO- REGIONAL ANESTHESIA (TOT. 5 HOURS)</p> <p>acquisition of :</p> <p>a) meaning and applicability of loco-regional anesthesia in large and small animal species;</p> <p>b) knowledge of the correct methods of application and possible complications.</p>	<p>regional anesthesia :</p>	<p>definition , history, classification</p>	<p>1</p>	
	<p>regional anesthesia :</p>	<p>advantages / disadvantages , the use of local anesthetics , mode of action of local anesthetics, scale of pain sensitivity ;</p>	<p>1</p>	
	<p>regional anesthesia :</p>	<p>property , action, metabolism ;</p>	<p>1</p>	
	<p>regional anesthesia :</p>	<p>enhancement - prolongation of action of a local anesthetic</p>	<p>1</p>	
	<p>regional anesthesia :</p>	<p>toxicity of local anesthetics</p>	<p>1</p>	

<p>7 . PROTOCOLS OF MIXED BALANCED ANESTHESIA IN VARIOUS ANIMAL SPECIES</p>		<p>horse , dog, cat , cattle, pig , small ruminants , unconventional species.</p>	
<p>PRACTICAL EXERCISES</p>			
<p>Topics and acquired skills</p>	<p>Topics</p>	<p>Specific contents</p>	<p>Hours</p>
<p>acquisition of :</p> <p>a) Completion of the anesthesia record ;</p>	<p>The anesthesia record:</p>	<p>This practical exercise , carried out in small groups with tutors aims , to perform the student with the dexterity of an animal EOG .</p>	<p>2</p>
<p>b) the correct approach to the patient anesthesia ;</p> <p>c) Procedures and techniques for tracheal intubation gold ;</p>	<p>The anesthesiological patient:</p>	<p>This practical exercise , performed in the operating room along with the tutor aims to foster the student's approach with the patient in the peri-anesthetic management of the same .</p>	<p>2</p>
<p>d) preparation and use of inhalational anesthesia instruments ;</p>	<p>the oro-tracheal intubation:</p>	<p>This practical exercise , carried out in small groups with tutors in the laboratory using corpses , aims, to perform the</p>	<p>2</p>

<p>e) execution - loco-regional anesthesia techniques on dead animals.</p> <p>2</p>		<p>student with the manual on procedures for oro-tracheal intubation in small species.</p>		
	<p>Machines for inhalation anesthesia and respiratory systems:</p>	<p>practical exercise , carried out in small groups with tutors aims , to make the student learn the procedures necessary for the use of equipment and systems required for general inhalation anesthesia .</p>	2	
	<p>loco- regional anesthesia of the head :</p>	<p>This practical exercise , carried out in small groups with tutors in the lab, on cadavers , aims , to locate landmarks and make the student do the manual work necessary to implement the major anesthesia loco- regional head .</p>	2	
	<p>regional and spinal anesthesia :</p>	<p>This practical exercise, carried out in small groups with tutors in the lab, on cadavers, aims , to locate landmarks and make the student the manual on the implementation of the principal regional and spinal anesthetics.</p>	2	

