



Benha University
Faculty of Veterinary Medicine
Animal Medicine Department
Veterinary Internal Medicine
Fourth Grade Students – Pet Animal Medicine

Time allowed: 3 hours

Date of exam: 1-1-2017

Please answer all questions

- I- (a) Enumerate the causes and illustrate the pathogenesis of canine heart worm disease?(4 marks)
- Microfilaria called *Dirofilaria immitis* that is transmitted by mosquitoes.
 - The infection starts when the mosquitoes ingest the microfilariae (first stage larvae L1) that molt twice in the mosquito to infective L3.
 - When the mosquitoes carrying L3 feed on dog, some of these larvae enter subcutis and molt to give L4 and then L5 young worm (100 days following infection) migrating to peripheral pulmonary arteries of the caudal lung lobes give mature females after 5 month release microfilaria →

Pathogenesis →

- 1- the presence of adult worm in pulmonary arteries increases the reactive vascular lesions that result in pulmonary hypertension, endothelial cell swelling, and increase the endothelial permeability periarterial swelling
- 2- Excessive number of larvae migrate to heart then to vena cavae.
- 3- Death of the adult heartworm leads to vascular occlusion and increases the pulmonary arterial resistance and lung consolidation alveolar hypoxia, cough, dyspnea, hemoptysis and right heart failure

(b) Describe the clinical features of feline acne? (4 marks)

1. Signs range from barely noticeable blackheads to severely inflamed and draining pustules.
2. Some cats are not seemingly bothered, and some are very itchy and painful. Local hair loss and redness are also common.

(c) Certain immunoglobulins are involved in respiratory diseases in dogs. Discuss this statement pointing to pathogenesis, clinical signs, diagnosis and treatment of this disease? (4 marks)

IG-E is the most involved in resp hypersensitivity diseases including allergic rhinitis, Asthma, bronchopulmonary aspergillosis and hypersensitivity pneumonitis.

II- (a) Plan your diagnosis for different types of stomatitis in dogs?

(4 marks)

A. Ulcerative stomatitis

Causes:

1. Systemic viral disease as calicivirus and rhinotracheitis in cats.
2. Systemic affections as nephritis in dogs besides vitamin B deficiency.

Lesion:

There is ulceration usually at the tip of the tongue in case of cats. It may progress to include all the tongue mucosa. It is usually covered by pseudomembrane. The saliva becomes discoloured, bloody stained and unfaetid odour.

In dog, it precedes gangrenous type

B. Ultero-membranous stomatitis

Causes:

1. Fusiform bacilli and spirochetes.

It is usually in dogs and cats.

Lesion:

Found on gingival margin. It is red and swollen, easily bled and painful on palpation. Gingivo-ulcerative membrane formed. There was offensive odour. Saliva become slimy, brown and purulent then it may stain muzzle and forelegs. Respiratory system may be affected.

C. Gangrenous stomatitis

Cause:

1. Severe physical or chemical cause.
2. Advanced systemic affection (uraemia).
3. Vit. B deficiency.
4. Sequellae to ulcero-membranous type.

Lesion:

Mainly on the tip and borders of the tongue. There was rapid and massive destruction of the tissues. Some lesions may be found on gum margin of premolar and molars.

D. Follicular stomatitis

Causes:

1. Due to prolonged condition of general systemic disease as distemper.
2. Malnutrition
3. Bad sanitary measures.

Lesions:

Small vesicles → shallow denuded ulcer.

E. Mycotic stomatitis

Causes:

Candida albicans.

Lesion:

Star like ulcers on the mucosa, covered by gray- whitish tenacious membrane, it occurs in young animals after prolonged treatment with antibiotic.

Similar lesions may be found on pharynx and anal mucosa.

(b) Describe the treatment of pneumonia in dogs?

(4 marks)

I-Hygienic Treatment

- 1- Plenty of fluids oral and iv) and warmth
- 2- Complete rest
- 3- Isolation of affected dogs or cats

II- Medicated Treatment

- 1- Antibiotics for at least three weeks
- 2- Humidified oxygen for animals that have trouble breathing
- 3- Airway humidification to assist in expectoration of secretions
- 4- Percussion of the thorax (coupage) to help loosen and remove secretions
- 5- Expectorants
- 6- Bronchodilator therapy
- 7- Cough suppressants

(c) Explain the following statements: (6 marks)

1- Scooting is observed with certain diseases of gastrointestinal tract

In case anal sacculitis due to irritation of anus

2-Polyuria is observed in diabetes mellitus and diabetes insipidus in dogs

In DM, lack of insulin with increase sugar excretion that require water. In DI, due to lack of antidiuretic hormone which is necessary for reabsorption of water from renal tubules.

3-Nasal solar dermatitis is a hypersensitivity disease in dogs

Reaction between the sunlight and ill-pigmented area, specially around eyes and lips

4-Urolithiasis is a multifactorial disease in male dogs

Due to the pivotal role of different factor in induction of the disease includine hormonal, environmental, feeding, seasonal and hereditary factors

5-Uremia in dogs has different types based on etiology

Pre-renal: diseases of blood, renal: disease of glomerulus and nephrons, pos-renal due to obstruction of ureters and urethera

6- Application of corticosteroids is contraindicated in certain diseases in pet animals

In FURI with corneal ulceration (for example, the injection of corticosteroids are contraindicated because it may increase virus shedding and exacerbate the ulceration)

III- (a) Abnormal attitudes are observed in certain diseases in dogs. Enumerate these diseases then tabulate the differential diagnosis and treatment of these diseases? (6 marks)

It may be classified according ot the system affected as follow:

- 1- Digestive: prostration position in gastritis, scooting in anal sacculitis, biting the belly in colic
- 2- Resp: abduction of fore limbs in pyothorax,
- 3- Urinary: licking penile urethera in FUS,

4- Skin: continuous itching in mange

(b) Adrenal gland disorders induced specific diseases in dogs. Discuss this statement pointing to diagnosis, differential diagnosis and treatment of these diseases? (6 marks)

-Hyperadrenocorticism: Cushing's syndrome

-Hypoadrenocorticism: Addison's syndrome

IV- Please answer the following clinical cases:

(a) A 4-year old bitch admitted to your clinic suffering from severe panting. Temp was 40 °C with abnormal positions of the fore limbs. Plan your diagnosis, differential diagnosis and treatment?

The case may be: Pyothorax, acute bronchitis, pneumonia, laryngitis

Most suspected: pyothorax

(6 marks)

(b) You are called to examine a 2-year-old German shepherd with salivation. The owner complains included convulsions and seizures that usually start suddenly. There was a history of trauma. Plan your diagnosis, differential diagnosis and line of treatment? (6 marks)

the suspected diseases could be: Epilepsy, encephalitis, uremia

The most suspected: Epilepsy