## **Diseases of Respiratory System** (Pneumonia)

# Pneumonia in dogs ad cats

#### **Definition:**

- Inflammation of the lung tissue that usually preceded by bronchitis (bronchopneumonia)
- It is characterized clinically by fever, coughing dyspnea and hypoxemia.

#### **Etiology:**

Predisposing factors:

- Environmental exposure to dusts and smoke
- secondary to heart diseases (Heart Failure)
- Factors lowering defense mechanism of animals such as stress

## Etiology

Infectious causes:

- Viral Pneumonia:
- 1. canine distemper virus infection

2. adenovirus types 1 and 2

3. parainfluenza virus

4. complicated feline upper respiratory tract infection

# Etiology

- Parasitic Pneumonia :
- 1. lungworms (strongylus)
- 2. from the migration of other worms through the lung (Toxocara)
- Bacterial Pneumonia:
- 1. Primary infection by P. multocida, Escherichia coli, Streptococcal spp., Klebsiella spp., Staphylococcus spp.
- 2. Secondary to severe kennel cough particularly in young puppies.

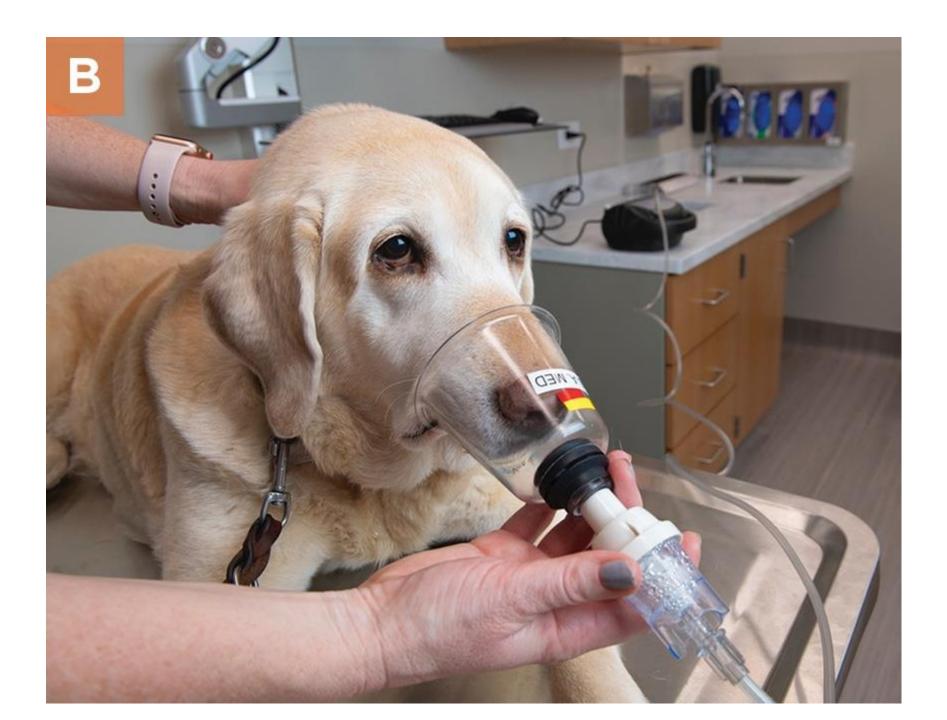
# Etiology

- Allergic Pneumonia:
- Fungal Pneumonia:
- 1. Coccidioidomycosis immitis,
- 2. Cryptococcus neoformans
- Aspiration Pneumonia:
- 1. Secondary to megaesophagus

2. improperly administered medications (eg, oil or barium) or food (forced feeding); it may also follow suckling in a neonate with a cleft palate.

## **Clinical signs**

- 1. Rapid breathing (tachypnea)
- 2. Respiratory distress (Dyspnea)
- 3. Productive cough (Coughing is frequent, painful and, in the final stages, they can be produced by such severe paroxysms that the animal becomes exhausted rapidly)
- 4. Fever and Depression
- 5. Mucopurulent nasal discharge





## **Clinical signs**

#### 6. Anorexia

- 7. Restlessness (laziness)
- 8. weight loss, depressed activity or exercise intolerance
- 9. The tongue, gums, and lips may appear bluish (cyanosis)
- 10. Lung sounds are often abnormal with a "crackle" upon auscultation when the dog takes a deep breath





#### Diagnosis

- Case History
- Clinical signs
- Lab Exam:
- Complete blood count (CBC)
- Airway cytology
- Culture (tracheal wash cytology and culture and sensitivity)
- Chest X-rays

#### Treatment

- I- Hygienic Treatment:
- Plenty of fluids and warmth
- Rest
- II- Medicated Treatment:
- 1. Antibiotics for at least three weeks or longer
- 2. Humidified oxygen for animals that have trouble breathing

#### Treatment

- 3. Airway humidification to assist in expectoration of secretions
- 4. Percussion of the thorax to help loosen and remove secretions
- 5. Expectorants
- 6. Bronchodilator therapy
- 7. Cough suppressants

