

Pet Animal Medicine

Diseases of Respiratory system

By

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Hypersensitivity pneumonitis (Extrinsic allergic alveolitis)

Definition:

Diffuse inflammatory disease of the distal portion of the lungs following inhalation of some organic dusts characterized by: dry cough, dyspnoea occurs after 4-6 hours of inhalation and lasts for 12

Causes:

- Inhalation of allergens
- Parasites present in the trachea and bronchi as *Capillaria aerophila*, *Oslerus osleri* and *Crenosoma vulpis*.
- Those found in the small bronchioles and alveoli as *Paragonimus* spp. as *Aelurostrongylus* and *Anderson strongylus mlksi*.
- Migrating parasites as *Toxocara* spp., *Ancylostoma* spp. and *Strongylus stercoratis*.
- Canine heartworm pneumonitis by *Microfilaria*
- chronic bacterial or fungal infections (eg, histoplasmosis, aspergillosis)



Egg of *capillaria aerophila*

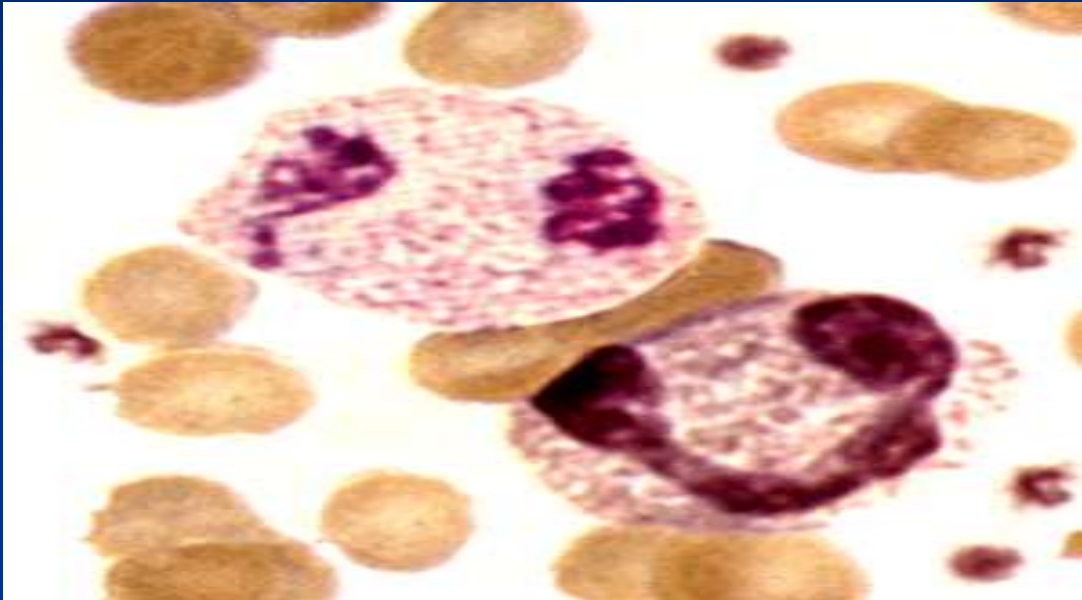
Clinical signs

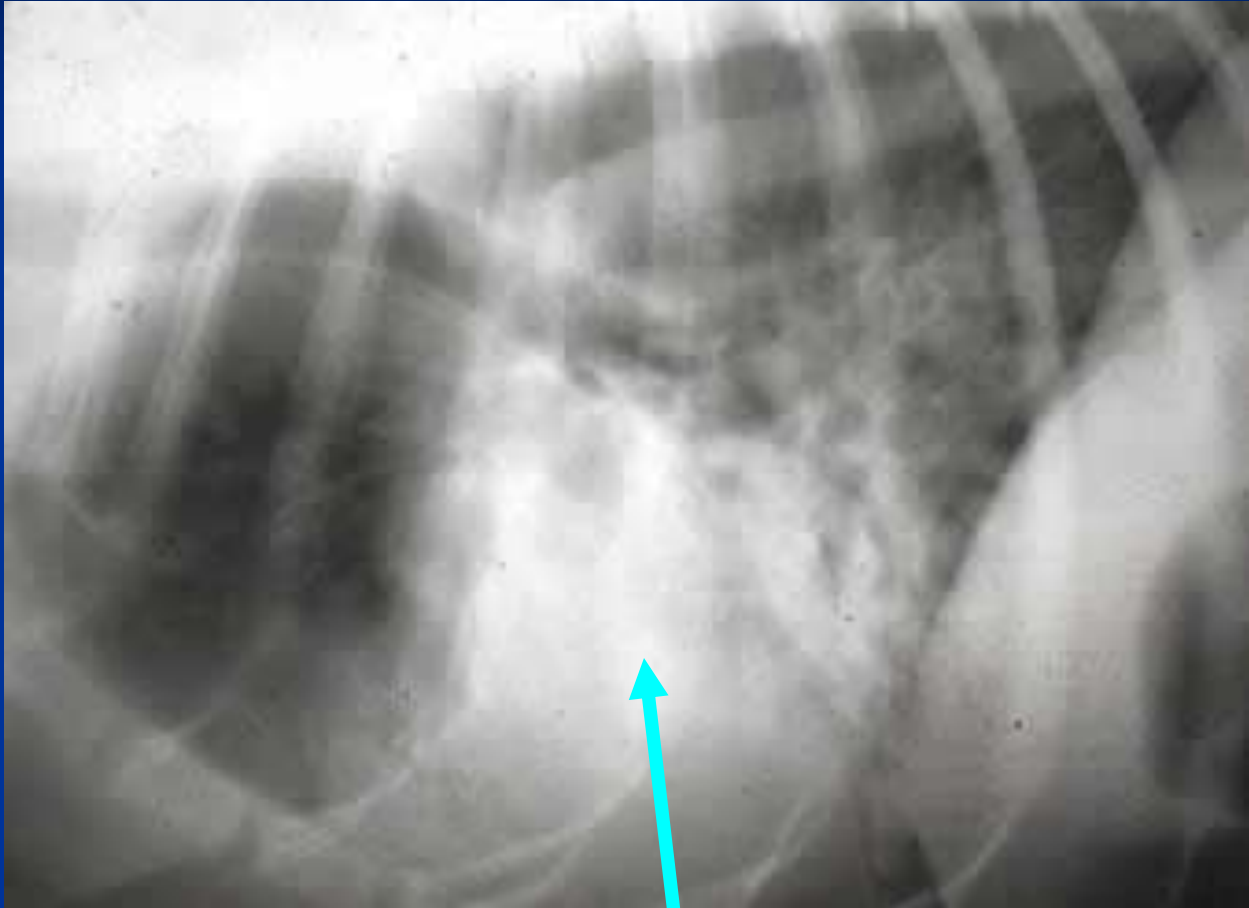
- Chronic cough is the most common sign. It may be mild or severe, productive or nonproductive, and progressive or nonprogressive.
- Weight loss, tachypnea, dyspnea, wheezing,
- exercise intolerance,
- occasionally hemoptysis may be seen.
- Severely affected animals may exhibit moderate to severe dyspnea and cyanosis at rest.
- Auscultation varies from unremarkable to increased breath sounds, crackles, or wheezes.
- Fever is usually absent.

Diagnosis:

- By repeated fecal examination for parasites
- By examination of tracheal wash or bronchoalveolar lavage (high eosinophilic count).
- By radiography special parasitic causes (microfilaria).
- Typical hematologic changes are mild leukocytosis, variable **peripheral eosinophilia** (4-50%), and occasionally basophilia.

Esinophilia





Lung consolidation by radiography

Treatment:

1. Elimination of the parasites by antiparasitic agent such as levamisole, thiabendazole, fenbendazol and albendazole.
2. To suppress the hypersensitivity reaction:
 1. Glucocorticoids (suppress inflammation)
 1. prednisolone 1-2 mg/kg b.wt.
 2. It may be used orally in 2-3 divided doses. It is a drug of emergency used during attack.
3. Dexamethazone sod. Phosphate 1mg/kg B.wt.
I/V.



1 mg/kg IM



1-2 mg/kg IM



1 ml / 10 kg B.
Wt. by S.C. inj.
(7.5mg/kgB. Wt.)

4-Bronchodilators:

- Epinephrine 1/100 0.1 ml S/c or I/V.
- Aminophylline 25 mg orally.
- Turbutaline 2.5 mg orally.

■ Thanks