

Allergic Bronchitis in Dogs

Ronald M. Bright, DVM, MS, DACVS

BASIC INFORMATION

Description

Allergic bronchitis is inflammation of the lower respiratory tract (bronchi) that results from exposure to some type of allergen that is inhaled or carried in the blood. The inflammation may also affect the trachea (windpipe).

Causes

Immunologic stimulation occurs, often from common environmental allergens such as:

- Dusts and molds
- Cigarette smoke
- Aerosol sprays
- Dust and grain mites

Parasites (heartworms) and fungal infections can also cause a hypersensitivity reaction in the airways.

Clinical Signs

Allergic bronchitis most often affects young to middle-aged dogs. It may be more common in obese dogs. Cough is a consistent sign. The cough is usually dry and nonproductive. It may be aggravated by exposure to cold temperatures, exercise, and pressure placed on the trachea or chest. Sometimes respiratory distress occurs, with wheezing and increased effort on expiration (breathing out).

Diagnostic Tests

Routine laboratory, heartworm, and fecal tests, as well as chest x-rays are often recommended to investigate potential causes of a cough. Chest x-rays may be normal or show findings consistent with bronchitis.

Analysis of secretions taken from the trachea and bronchus during a transtracheal wash may reveal a type of white blood cell, the eosinophil. Eosinophils are commonly present with allergic and parasitic diseases and occasionally are seen with fungal infections. The secretions may also be cultured for bacteria. Bronchoscopy, which involves the passage of a fiberoptic scope into the airway, may help eliminate parasites, foreign bodies, a collapsing trachea, or tumors as potential causes of the cough.

If allergic disease is suspected or confirmed, it is important to search for potential allergens in the household. Allergy skin or blood tests may be recommended in some cases. Blood tests for fungal infections may also be considered.

TREATMENT AND FOLLOW-UP

Treatment Options

Antibiotics are administered if a secondary bacterial infection is present. If a fungal disease is present, antifungal drugs are indicated. (See the handouts on **Fungal Pneumonia** and the specific fungal disease involved.) Corticosteroids are usually administered at high doses for 14 days, then slowly tapered. Bronchodilator drugs may be recommended if increased expiratory effort and wheezing are present. Steroids and bronchodilators may be given in oral form or through an inhaler, or both.

Humidification of the environment may help to decrease inflammation and improve clearance of secretions. If an allergen can be identified, it should be avoided or eliminated from the environment. Weight reduction is beneficial in some dogs. Some refractory cases, such as cases of chronic bronchitis or atopic (allergic) dermatitis, may require additional therapy.

Follow-up Care

Initially, close monitoring is needed to evaluate response to treatment and make alterations in medications to ensure that the signs are controlled. The goal of therapy is to aggressively treat the airway inflammation so that a chronic bronchitis does not develop. Notify your veterinarian if any signs recur, because acute relapses may develop that require adjustment of the medications.

Prognosis

Prognosis is often good with the following three measures:

- Removal of the offending allergens from the environment
- Strict compliance with giving medications as prescribed by your veterinarian
- Institution of a strict weight reduction program for obese dogs