



WHAT IS CHRONIC BRONCHITIS?

Chronic bronchitis is a common cause of coughing in small breed dogs that is caused by inflammation and excessive mucous production. Dogs with chronic bronchitis typically have a history of coughing of greater than two months duration. The cough is usually described as non-productive and frequently is characterized by a “terminal wretch” – a gagging sound at the end of the coughing.

TESTS

PHYSICAL EXAMINATION

Dogs with chronic bronchitis typically have a normal respiratory rate, but may have an increased respiratory effort during expiration. Abnormal lung sounds called crackles are commonly heard with a stethoscope. A heart murmur may be present, because many small dogs with chronic bronchitis also have heart disease.

ECHOCARDIOGRAPHY (HEART ULTRASOUND)

If a heart murmur is present, an echocardiogram is commonly performed to rule out other underlying heart disease contributing to the coughing. Common heart-related causes of coughing include congestive heart failure due to mitral regurgitation (leaking left sided heart valve) and pulmonary hypertension (increased pressure in the lungs).

THORACIC RADIOGRAPHS (CHEST X-RAYS)

Chest x-rays are often taken to look for evidence of congestive heart failure and heart enlargement to rule out other possible causes of coughing.

TESTS

BLOODWORK

A Complete Blood Count (CBC) is recommended to help rule out any infectious causes of coughing such as pneumonia.

BRONCHOSCOPY

Bronchoscopy is a specialized type of airway examination that is performed under general anesthesia. This test enables examination of the airways and collection of samples for further evaluation.

MEDICATIONS

Chronic bronchitis is typically very difficult to treat and requires a multi-modal approach. The cough rarely resolves completely, and a reduction of coughing by 50% is considered successful treatment.

Commonly used medications include:

- **Theophylline.** Theophylline is a type of bronchodilator (airway dilator) used to improve expiratory airflow and promote the removal of mucous.
- **Doxycycline.** Doxycycline is an antibiotic that also has some anti-inflammatory properties. Antibiotics treat possible secondary lung infections.
- **Steroids.** Steroids suppress inflammation but can have many secondary side effects.
- **Cerenia.** Cerenia is an NK1 receptor blocker typically used as an anti-nausea medication. However, this mechanism also may decrease sensitivity to the cough reflex and has recently been demonstrated to decrease cough frequency in dogs with chronic bronchitis.

FOLLOW-UP

It is important to remember that the cough rarely resolves completely in dogs with chronic bronchitis, and a 50% or greater reduction in coughing is considered successful treatment. Close monitoring for changes in coughing or worsening coughing is extremely important, especially in dogs that also have heart disease, as this may indicate development of an additional medical problem such as congestive heart failure.

OTHER TREATMENTS

- Weight loss is also recommended in overweight patients.
- Nebulization can help promote the removal of mucous.



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