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Lung Lobe Torsion

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BASIC INFORMATION

Description

Lung lobe torsion is the twisting of a portion (lobe) of the lungs around its blood vessels and bronchus (the airway that leads from the windpipe into the lung). Some lung lobes are more mobile (moveable) than others, which predisposes them to torsion.

Causes

Deep-chested, large-breed dogs are prone to lung lobe torsion for unknown reasons (idiopathic). Any animal that develops fluid within the chest cavity may develop a torsion, because the lung lobe may "float" on the fluid and twist on its long axis. Trauma and thoracic surgery may also be causes.

Clinical Signs

The onset of signs is usually sudden and may include rapid and difficult breathing, coughing with or without the production of blood, and shock and collapse (in severely affected animals). Lethargy and fever are also common. Other signs of an underlying cause may also be present.

Although most cases of lung lobe torsion produce sudden, serious signs, some animals with this condition exist for days or weeks with signs limited to coughing, fever, and decreased appetite.

Diagnostic Tests

Lung lobe torsion may be suspected in large, deep-chested dogs with respiratory signs, especially if evidence of fluid in the chest is found on physical examination. Routine laboratory tests and chest x-rays are often recommended to investigate potential causes of the respiratory signs. Chest x-rays are helpful to identify free fluid in the chest and may show changes compatible with lung lobe torsion. Fluid aspirated from the chest (thoracentesis) is often bloody. The fluid sample is commonly sent for microscopic analysis and culture to rule out other diseases, such as cancer or other conditions that can produce fluid in the chest.

Bronchoscopy, which involves the passage of a fiberoptic scope into the airway, is sometimes necessary to confirm that the bronchus is twisted as it enters the lobe of lung. Bronchoscopy also helps eliminate foreign bodies, other forms of pneumonia, and tumors as potential causes. Other tests may be recommended to rule out other diseases that can cause fluid in the chest and similar x-ray changes.

TREATMENT AND FOLLOW-UP

Treatment Options

Initial therapy involves measures to stabilize the animal and improve breathing. Supportive care may include fluid therapy, oxygen supplementation, and possibly antibiotics. If there is fluid in the chest, it is often removed to allow the animal to breathe easier. Once the animal is stable, surgery is needed to remove the affected lung lobe. Any underlying conditions are also treated.

Follow-up Care

Following open-chest surgery (thoracotomy) and lung lobe removal (lobectomy), a chest tube is usually left in place for 24-48 hours. Monitoring of vital signs, such as respiratory rate, heart rate and rhythm, oxygen levels in the blood, body temperature, and blood pressure (when available) is critical following surgery.

The lung lobe removed should be submitted for pathologic analysis to be certain that no additional diseases, such as cancer, are present.

Prognosis

Removal of the affected lung lobe is curative, so the prognosis is good for idiopathic cases. Prognosis for patients with underlying diseases is dependent on the ability to successfully manage those conditions after lobectomy for the torsion.

IF SPECIAL INSTRUCTIONS HAVE BEEN ADDED, THEY WILL APPEAR ON THE LAST PAGE OF THE PRINTOUT.