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PERICARDIAL EFFUSION

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What is pericardial effusion?

Pericardial effusion is an abnormal build-up of fluid within the sac surrounding the heart. There is normally a very small amount of fluid present within this space so when an increased volume accumulates, the heart's ability to pump effectively is impaired causing secondary effects. Most common breeds affected include golden retrievers, bulldogs, Boston terriers, French bulldogs, German shepherds, boxers, and weimaraners. In some cases, the fluid can build-up slowly over time which can give your pet more time to adjust and compensate. Other times, this can happen quickly and become a life-threatening condition that requires immediate action.

What causes pericardial effusion?

Most commonly, pericardial effusion is secondary to cancer associated with the heart. Other causes occur secondary to bleeding disorders, toxin exposure (i.e rat poison), heart failure, trauma, infectious diseases, or low protein levels in the blood. Pericardial effusion can also occur in young animals because of a congenital hernia called peritoneal-pericardial diaphragmatic hernia. Sometimes there is no specific cause identified in which case it is idiopathic, or unknown.

How is pericardial effusion diagnosed?

To diagnose pericardial effusion, your veterinarian will perform a thorough physical exam that may reveal pale gums, labored breathing, muffled heart sounds, jugular vein distention, increased heart and respiratory rates, abdominal fluid accumulation, or fever if caused by an infection. If pericardial effusion is suspected there are various tests that will likely be performed which include:

- Bloodwork to evaluate your pet's overall systemic health and look for a possible underlying cause
- X-rays of the chest that can reveal an enlarged heart silhouette or rounded appearance
- ECG to look at your pet's electrical rhythm for any abnormalities
- Blood pressure
- The gold standard or most accurate test for diagnosing pericardial effusion is by chest ultrasound to see the fluid around the heart

If your pet is critically ill due to secondary effects of the accumulation of fluid, your veterinarian may be required to remove the fluid surrounding the heart in a procedure called pericardiocentesis. Pericardiocentesis can be both a treatment and diagnostic tool as the fluid collected from the procedure can be analyzed to help identify an underlying cause.

Treatment of pericardial effusion

The aim of treatment is towards the underlying disease causing the accumulation of fluid which may include antibiotics for an infectious cause, chemotherapy, or surgery. Although pericardiocentesis can be used to help treat initially, it is not a cure for pericardial effusion and instead the underlying cause must be addressed as the effusion is likely to accumulate again.

Signs of pericardial effusion can vary drastically and may present differently in each pet. Some signs to look for at home are increased respiratory rate, difficulty breathing, lethargy, exercise intolerance, weight loss, depression, and abdominal distention. If any of these signs are observed, please call your veterinarian as soon as possible to determine next steps. 