Accuracy of Non-Invasively Determined Pulmonary Artery Pressure in Dogs with Chronic Valve Disease (CVD)

Purpose
To assess the accuracy of using heart sonograms (echocardiography) in determining blood pressure in the pulmonary vessels in dogs with heart valve disease (CVD).

Background
This study is intended to assess the accuracy of echocardiography in determining pulmonary artery pressure in dogs with CVD. The results of the study will improve the diagnostic evaluation of pulmonary hypertension (PH) in dogs and our understanding of dogs with pre-clinical CVD, providing for the first time important data on cardiac function. Because early phases of PH in dogs with CVD may be reversible, it is important to recognize the condition as soon as possible as this may affect therapeutic decisions and therefore, outcome of affected dogs.

Who can be enrolled in this study?
- Dogs with mitral valve disease (also known as endocardiosis) that have:
  - an enlarged heart on chest X-ray
  - mitral valve disease confirmed by cardiac ultrasound (echocardiography)
  - tricuspid regurgitation (backflow through the tricuspid valve) identified by cardiac ultrasound (echocardiography)

My dog is being treated for heart disease, can he be enrolled in the study?
- Yes, your dog can be enrolled while being treated for heart disease if he or she has had no change in symptoms or medications in the last month.

Who cannot be enrolled in the study?
- Dogs with mitral valve disease that do not have an enlarged heart
- Dogs that have other significant diseases such as kidney disease
- Dogs weighting less than 5 kg (11 pounds)

Study Design
Dogs will undergo standard echocardiographic examination to establish baseline measurements. Dogs will then be sedated and a catheter will be inserted into the jugular vein so that pressures in the right side of their heart and pulmonary blood vessels can be measured. These measurements will be compared with the echocardiographic findings.

A recheck including an echocardiographic exam and chest X-rays will be performed after 3 months.

Compensation
Enrolled dogs will receive, at no cost, a physical examination/office visit, renal function profile, thoracic radiographs (chest x-rays), right-sided cardiac catheterization, and complete echocardiographic examination. One follow-up visit after 3 months is also included. The value of these services is estimated at over $500.

The costs of an initial screening exam may be covered for patients who are likely to be eligible.

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If your query is urgent, please call the Small Animal Hospital on (540) 231-4621 and ask for the cardiologist on duty.