

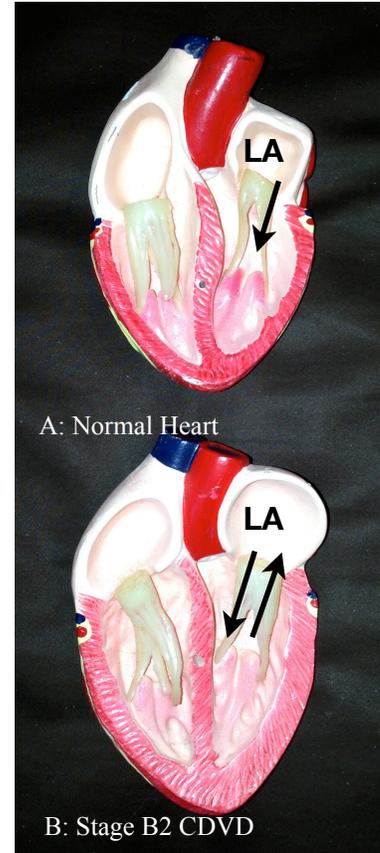
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BACKGROUND: Chronic Degenerative Valve Disease (CDVD) is an acquired heart condition in dogs in which the valves regulating forward blood flow from the small receiving chambers of the heart (atria) into the larger pumping chambers of the heart (ventricles) stop working effectively. The valves are designed to function as one way gates (see image A to the right). However, when the valves develop degenerative changes they begin to leave gaps in the “gate” and can no longer prevent back-flow (regurgitation) from the ventricular chambers into the atrial chambers with each heartbeat and two way flow occurs (see image B to the right). The blood flowing backward across the gap in the valve leaflet does so at a high speed and in a turbulent manner (like water going over rapids) and creates the murmur (sound) that we hear on physical examination. The altered blood flow can also lead to heart enlargement.

CONDITION: Stage B2 CDVD refers to a patient that has developed enlargement, or “remodeling” of the left side of the heart secondary to the altered blood flow pattern (leaky valves), but who is not having any clinical signs attributable to heart disease. Note the increased size of the left atrium (LA) in the lower photo B, to the right, compared to the “normal sized” LA in the upper photo A.

DIAGNOSIS: Enlargement of the heart can often be documented on chest x-rays. In fact, radiographs are an important diagnostic aid in this condition as a way to assess the lungs. However, an echocardiogram is indicated to confirm the diagnosis, stage the severity, assess for possible concurrent pulmonary disease, and to help calculate risk for development of heart failure. These tests are used together to determine a personalized heart health plan for your pet. Stage B2 CDVD is the stage at which medical management is indicated. A medication called pimobendan was shown in a recent study, when prescribed at stage B2 of CDVD, to help slow down the progression to clinical signs associated with heart failure. Refer to epictrial.com for more information. CDVD can eventually progress to the stage of left-sided heart failure (stage C) which is characterized by fluid build-up in the lungs. Stage C is the stage at which dogs start to have clinical signs including increased breathing rates at rest. If dogs reach this stage, they benefit from additional medications to maintain their quality and longevity of life.

MONITORING: Routine follow-up will be recommended to include physical examinations and thoracic radiographs typically every 6 months, with an echocardiogram added every 6 to 12 months as indicated in your pet’s customized cardiac care plan. Clinical signs to watch for at home include exercise intolerance, generalized weakness, collapse, coughing, increased resting respiratory rates and labored breathing. As always, seek veterinary assistance with any concerns in regards to your pet’s healthcare.



¹ Heart models in photo courtesy of Boehringer-Ingelheim, Vetmedica

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