

“Pearls”
of
Veterinary Medicine



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CARDIOLOGY

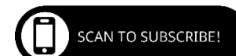
When echo is not an option

Most older, small breed dogs that present with a heart murmur have myxomatous mitral valve disease (MMVD). Other rare causes include endocarditis, mitral valve dysplasia, dilated cardiomyopathy and non-pathological murmurs. MMVD is nodular thickening of the valve leaflets and abnormal chordae tendineae, leading to abnormal valve coaptation and prolapse. Dachshunds, poodles, Cavaliers, Yorkies and Miniature Schnauzers are affected at a younger age, but the rate of progression is similar across breeds. It is a relatively benign condition; in one study, 70% of dogs with MMVD were alive after 6.6 years. About half the dogs will develop CHF within 2-3 years.

Staging: Stage B is a dog with structural heart disease but no clinical signs; Stage B2 dogs have left atrial and left ventricular enlargement that meets the EPIC criteria to start treatment with pimobendan, whereas Stage B1 dogs do not. Stage C dogs have or had clinical signs of heart failure, while Stage D dogs are considered refractory to standard treatment and require > 8 mg/kg/d of furosemide.

Vertebral Heart Score (VHS): The VHS is an indicator of

overall heart size. Measure the VHS from a right lateral thorax view. Measure the long axis line from the central ventral border of the carina to the apex of heart (may be difficult to see but take best guess). Count dorsal spinous processes to find the T4 vertebrae and draw a line the same length as the long axis line starting from the cranial aspect of T4.



Then measure the short axis line by measuring a line in the central third of thorax at the widest point of the cardiac silhouette and perpendicular to first line; measure that against the T4 vertebra. Adding the 2 measurements should equal about 11; normal is ≤ 10.7 (breed-dependent).

Vertebral left atrial size (VLAS) is more specific to left atrial size. It is measured from the central ventral border of the carina to the caudal border of the left atrium where it intersects with the dorsal border of the caudal vena cava. Take that measurement and index it to the T4 vertebrae. Normal is ≤ 2.2 .

CHF is a clinical diagnosis so prioritize clinical signs above radiographic signs; **particularly monitor resting respiratory rate (RRR) which should be ≤ 30 bpm**; One app that owners can use to monitor RRR is offered by Boehringer Ingelheim, My Pet’s Heart2heart.

See the table, “Differentiating CHF from Airway Disease when MMVD is present to some degree” and a “Flowchart for workup of dogs with suspected MMVD” page 4.

Lance Visser, VMX 2024

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Dermatology

Products to prevent sunburn and protect a dog’s face

The Dog Nose Protector, \$45 for any size, blocked 99% of UV radiation from the dorsal aspect of the nose and 83% from the anterior nasal planum. The OutFox Field Guard, \$59.99 for any size, protected 72.5% from the dorsal aspect and 71% from the anterior nasal planum, but is primarily