

PATIENT

Xander Bower

PRESENTING CLINICAL SIGNS

History: Heart murmur (III-IV/VI) noted on exam.
-CBC: WNL. CHEM: BUN (31), ALP (267).

SPECIES

Canine

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Normal cardiac silhouette. Prominent aortic root. No obvious evidence of CHF.

BREED

Wheaton Terrier

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.
A single lead ECG is available; 25mm/s, 10mm/mV. The average heart rate is 1200bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The QRS is inverted, which may reflect true chamber enlargement or may be due to patient positioning. The P morphology is positive. No ectopic beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm.

AGE

10 years

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with minimal prolapse into the left atrial lumen. Mild eccentric mitral regurgitation with minimal left atrial dilation. Elevated MR velocity. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with trace tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Trivial aortic and no pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

WEIGHT

52lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

CARDIAC CHART

IMAGING PERFORMED BY

Fred Gromalak, DVM

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	6.7	NM	1.5	1.1	38	69	0.7
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	160	1.1	0.8	23.6	3.4	4.4	2.7
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

HOSPITAL NAME

SVS Imaging

REFERRING VET

Dr. Sherrod

INVOICE

22391

DATE

2/7/22

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995



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Wheaton Terrier

SEX

Male Neutered

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

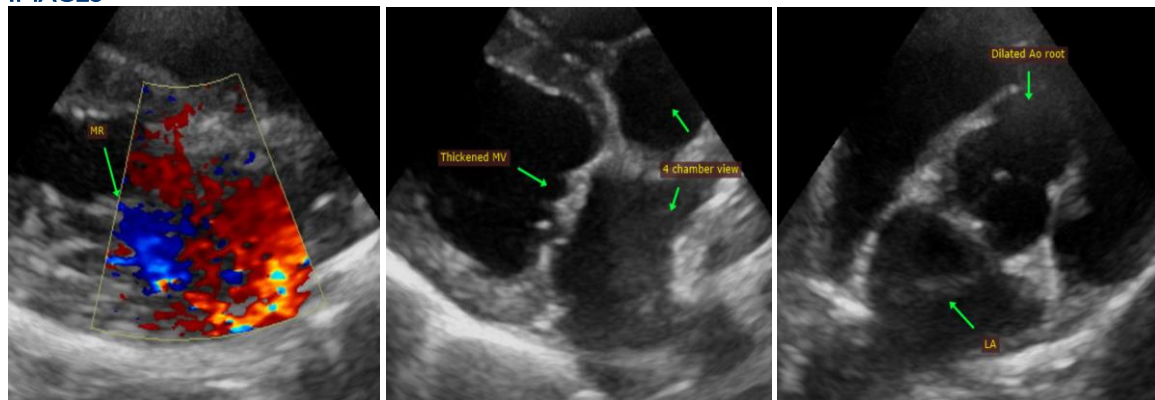
Chronic degenerative valve disease causing mild mitral and trace tricuspid regurgitation. Lack of significant left atrial enlargement indicates the current risk for complication is low. The patient does have **markers of systemic hypertension (small aortic leak, dilated aortic root), and a baseline blood pressure is strongly recommended. If elevated, strongly recommend screen for PLN given the breed. No additional issues are noted in this study.** The ECG is unremarkable with a normal sinus rhythm.

In a dog with no significant left atrial enlargement, no cardiac medications are clearly indicated. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1). Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES





PATIENT

Xander Bower

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

BREED

Wheaton Terrier

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

SEX

Male Neutered

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