
PATIENT

Tiffany Wilcox

SPECIES

Canine

BREED

Bichon Mix

SEX

Female Spayed

AGE

18 years

WEIGHT

18.6lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

 Rebekah Jakum, CVT
 ARDMS/RVT

HOSPITAL NAME

 Lehigh Valley Animal
 Hospital (Bath)

REFERRING VET

Dr. Tan

PRESENTING CLINICAL SIGNS

History: Recheck echo. Progressive BNP elevation. History of CKD, IVDD, urinary incontinence.

Current Medications: Ursodiol, Gabapentin, Galliprant, Dasuquin, Incurin.

-Pertinent abnormal lab results: BUN: 29, Creat: 1.5, P: 6.3, ALT: 131, BNP: 3102.

-Pertinent previous echo findings (1/2021 MML): CVD B2, moderate MR, trace TR. LA: 3.0, LV: 3.8/1.7, FS: 55%

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with significant prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Elevated MR velocity. LV dilation with hyperdynamic myocardial function. The tricuspid valve appears thickened with trace tricuspid regurgitation. Normal right atrial and ventricular diameter. The pulmonic valve is normal in morphology and mobility. The aortic valve is mildly thickened. Normal pulmonic and mildly elevated aortic outflow velocities. No pulmonic and mild aortic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

CARDIAC CHART

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	6.4	NM	NM	1.7	54	92	NM
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	NM	2.1	1.5	8.4	2.9	3.5	1.6
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease persists with evidence of relative stability. Moderate mitral and trace tricuspid regurgitation are unchanged with similar left heart dimensions. No obvious development of concurrent issues such as pulmonary hypertension at this time. As was previously mentioned, an elevated MR velocity is identified, and a baseline blood pressure is recommended. An elevated aortic outflow velocity is noted which is a benign finding that contribute to murmur intensity. No additional issues are identified.

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Given these findings, continue Pimobendan as previously recommended. Prognosis remains guarded long-term.

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Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

BREED
Bichon Mix

A lack of significant progression does not clearly explain progressive BNP elevation, consider ancillary causes such as underlying renal disease, systemic hypertension, etc.

SEX
Female Spayed

Anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso or sevo gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

AGE
18 years

PLAN

Baseline BP recommended. Continue Pimobendan as prescribed.

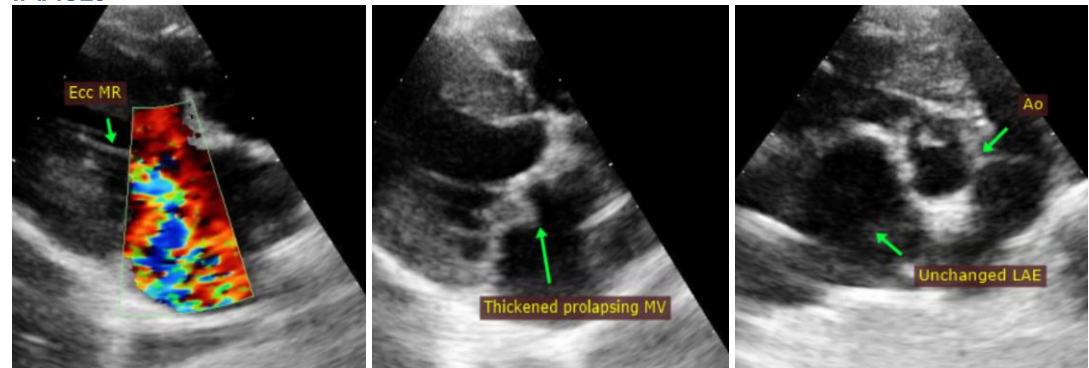
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Recommend monitor for progression with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES

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Maggie Machen Lamy,
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(Cardiology)



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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.

REFERRING VET

Dr. Tan

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.

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