



PATIENT PRESENTING CLINICAL SIGNS

Lilly Tarbox

History: Loud heart murmur, acute onset this spring. PE: Grade 5/6 systolic heart murmur. ALT and Glob. mildly elevated.

SPECIES

Canine

ECHOCARDIOGRAM FINDINGS

BREED

Maltese

2D, m-mode, color flow and doppler imaging is available. Severe diffuse nodular thickening of mitral valve leaflets. Marked prolapse of the anterior leaflet into the left atrial lumen. Ruptured chordae tendinae is suspected (see below) with a flail leaflet. Moderate to severe mitral regurgitation with moderate left atrial enlargement. MR velocity is normal. Mild LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened with no tricuspid regurgitation. The pulmonic and aortic valves appear normal in appearance and mobility. Normal pulmonic and aortic outflow velocities. Moderate aortic and no pulmonic insufficiency noted. No pericardial or pleural effusion seen. No obvious cardiac tumors.

SEX

Female Spayed

AGE

15 years

CARDIAC CHART

WEIGHT

5.5lbs

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	5.4	NA	NM	1.8	56	88	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	73	1.6	1.0	2.5	1.95	2.5	1.1
*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)

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Karen Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Oliver

INVOICE

21363

DATE

10/5/21

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valve disease causing severe mitral regurgitation. Moderate left atrial and ventricular dilation indicate the risk for spontaneous congestive heart failure is elevated and this patient is likely at risk for decompensation in the future. The finding of a ruptured chord and flail leaflet is most likely a historical finding, as no symptoms (collapse, acute decompensation, etc.) are reported. Cardiac support is recommended regardless. Finally, there is a significant aortic leak which is likely leading to worsening volume overload of the left heart. A baseline blood pressure is strongly recommended with institution of an ACE-I. Long term prognosis is guarded at this stage (B2), with risk for progression to CHF at some point in the future.



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Based upon this risk, lifelong cardiac support is recommended as below independent of clinical signs (none reported). Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.

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Once on the medication for 3-5 days, anesthetic risk is considered moderately elevated. Cardiac protective drug choices (opiod/benzodiazepine premedication, propofol or alfaxalone induction, iso/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.

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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 worsening cough, labored breathing, exercise intolerance or collapse episodes. Mild activity restriction is advised.

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PLAN

Screening BP is recommended. Institute Pimobendan 0.3mg/kg PO q12h. Institute Benazepril 0.5mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h.

WEIGHT

5.5lbs

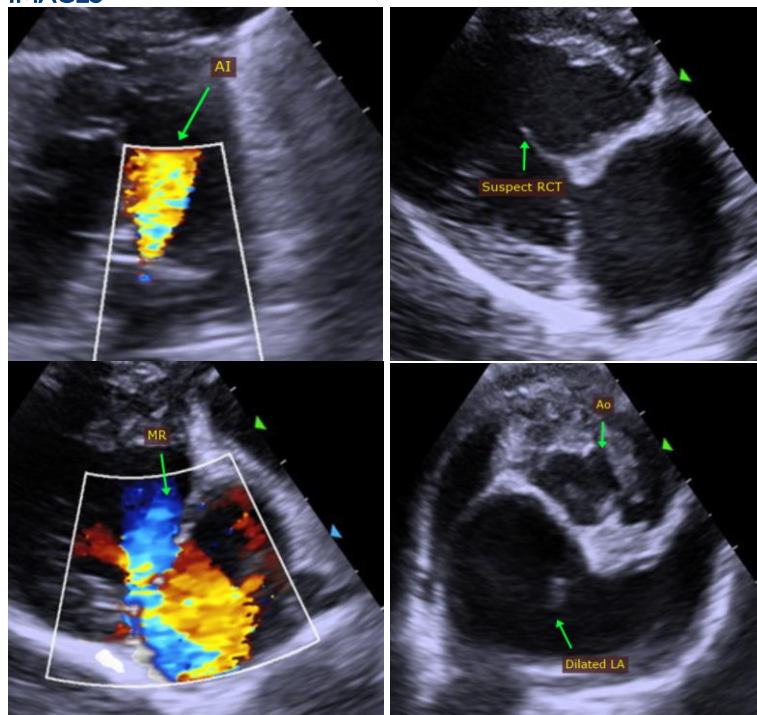
A renal panel and BP are recommended in 10-14 days following institution of medications, then every 4-6 months lifelong. If BP is persistently elevated despite above therapy, ancillary therapy such as Amlodipine may be necessary.

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise.

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(Cardiology)

IMAGES



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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.

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

Maltese

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

SEX

Female Spayed

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