



Portable Animal Western Sonography, Inc.

IMAGING PERFORMED BY

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**PATIENT**

Matrix Lyons

**SPECIES**

Canine

**BREED**

Boston Terrier

**SEX**

Male Neutered

**AGE**

13 years

**WEIGHT**

22lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Loetitia St-Jacques,  
LVT/RVT

**HOSPITAL NAME**

Brighton Greens  
Veterinary Hospital

**REFERRING VET**

Dr. Janeway

**INVOICE**

22483

**DATE**

2/9/22

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. Seen at Emergency clinic recently after a syncope episode and then aspiration pneumonia. Owner states patient had another episode last Friday, patient vomits, the reflux comes out his nose and then had a syncopal episode. History: CHF.

-Pertinent previous echo findings (8/2021 KB): Severe MR, severe LA/LVE. LV: 4.5, LA: 4.4, trace TR. Syncope noted at that time.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Severe diffuse nodular thickening of mitral valve leaflets (anterior>posterior). Mild prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial enlargement. MR velocity is elevated. Moderate LV dilation with hyperdynamic myocardial function and evidence of volume overload. The tricuspid valve appears mildly thickened and prolapsing with mild tricuspid regurgitation. Right atrium and ventricle appear normal in dimension. The pulmonic and aortic valves appear normal in appearance and mobility. Normal pulmonic and aortic outflow velocities. No aortic and trival pulmonic insufficiency noted. No pericardial or pleural effusion seen. No tumor seen.

**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	6.5	NM	NM	2.5	63	91	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	1.3	0.8	22.7	3.8	4.5	1.7
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Chronic degenerative valve disease persists without evidence of significant progression. Severe mitral and mild tricuspid regurgitation are unchanged with stable yet significantly enlarged left heart dimensions. No obvious concurrent issues such as pulmonary hypertension are identified.

This patient has syncope noted on every exam (starting in 2019), and no definitive cause has been identified. Given a lack of pulmonary hypertension, effusions, etc. this remains undiagnosed



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Matrix Lyons

and is presumably due to poor cardiac output. No obvious indication to change medications at this time, assuming the prior full cardiac support is still be administered. An ECG can be considered if the episodes increase in frequency.

**SPECIES**

Canine

Omega fatty acid supplementation and mild salt restriction continue to be recommended. Monitor for development of a progressive cough, labored breathing, exercise intolerance or worsening collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home. Prognosis is poor once CHF develops with an average survival time of <1 year. Patient will always be at risk for recurrent CHF, development of arrhythmias and/or sudden death in the future.

**BREED**

Boston Terrier

**SEX**

Male Neutered

**PLAN**

Screening BP every 6 months. Continue Pimobendan, Lasix, ACEI and Spironolactone as previously prescribed.

**AGE**

13 years

Monitor renal values/BP every 3-4 months lifelong.

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

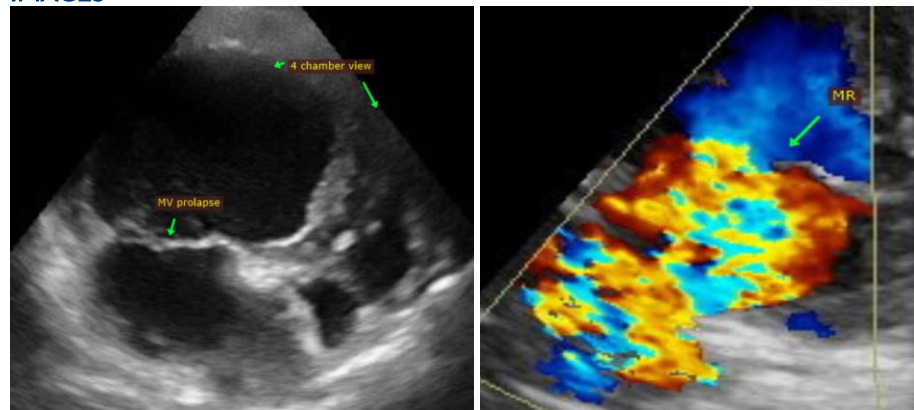
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**IMAGES**

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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.

**REFERRING VET**

Dr. Janeway

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.

**INVOICE**

22483

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

**DATE**

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