



PATIENT

Booker MacDonald

SPECIES

Canine

BREED

Boston Terrier

SEX

Male Neutered

AGE

11 years

WEIGHT

26.9lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Dave Stasiuk,
RDMS, RDCS

HOSPITAL NAME

Not provided

REFERRING VET

Dr. Mangat

INVOICE

20558

DATE

8/16/21

PRESENTING CLINICAL SIGNS

History: CHF. Increased left sided chamber sizes. Syncope. Grade 4/6 murmur.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Severe diffuse thickening of mitral valve leaflets. Significant prolapse into the left atrial lumen. Lack of coaptation in systole. Severe eccentric mitral regurgitation with marked left atrial enlargement. LV is dilated with hyperdynamic myocardial function and evidence of volume overload. The tricuspid valve appears mildly thickened with septal prolapse and mild tricuspid regurgitation. No obvious evidence of significantly elevated pulmonary arterial pressures. The pulmonic and aortic valves appear normal in appearance and mobility. Normal pulmonic and aortic outflow velocities. Mild aortic and trace pulmonic insufficiency noted. No pericardial or pleural effusion 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	NM	NM	2.3	2.5	41	72	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	0.94	0.7	12.2	3.1	4.7	2.8
*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)

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. Marked left atrial and ventricular enlargement indicates there is an elevated risk for spontaneous congestive heart failure. A small aortic leak is noted, and a baseline BP is recommended. No additional issues such as pulmonary hypertension or systolic dysfunction are seen.

Syncope in this patient is most likely cardiogenic in origin. Possible causes include poor forward blood flow leading to hypoxia, early CHF, pulmonary hypertension (not seen), an arrhythmia and/or blood pressure swings. In light of severity of disease on echocardiogram and CHF reported in the history, early CHF is the likely cause and full lifelong cardiac supportive therapy is warranted as below. Long term prognosis is guarded to poor; however, most dogs are able to



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maintain a good QOL on medications for an average of 8-12 months. Should syncope persist despite medications (particularly with exertion), revisiting the possibility of alternatives such as Intermittent arrhythmias Is recommended.

SPECIES

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Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home. Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or worsening collapse episodes in the future. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

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PLAN

Discharge on the following: Administer furosemide 1-2mg/kg PO q12h. Administer Pimobendan 0.3mg/kg PO q12h. Administer Spironolactone 1-2mg/kg PO q12h.

AGE

11 years

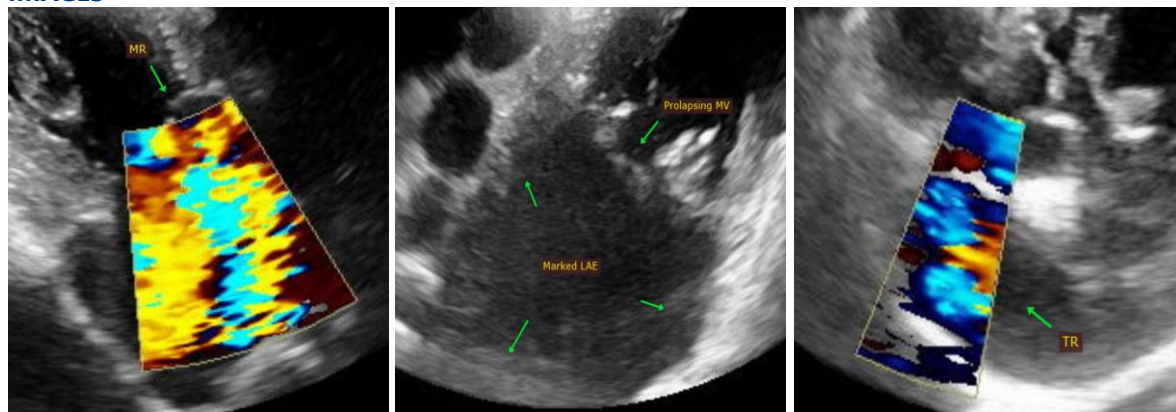
Monitor renal values and BP in 10-14 days, then every 3-4 months lifelong. If BP >130mmHg and patient is doing well at home, institute ACEI 0.5mg/kg PO q12h at that time.

WEIGHT

26.9lbs

Recommend recheck echocardiogram in 6 months, sooner if any development of associated clinical signs occurs in the interim.

IMAGES



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Not provided

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. Mangat

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