

PATIENT

Coco Mackenzie

SPECIES

Canine

BREED

Lab

SEX

Female Spayed

AGE

10.7 years

WEIGHT

79.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Brian Barnes, DVM

HOSPITAL NAME

Westview Veterinray
Hospital

REFERRING VET

Dr. Barnes

INVOICE

23087

DATE

3/14/22

PRESENTING CLINICAL SIGNS

History: Coughing. Mild cardiomegaly on CXR. BP: 189, 116, 153mmHg.
-Abnormal PE/Chem/CBC/UA Results: IALKP 509 U/L (25-212), LIPA 1860 U/L (200-1800) TT4 WNL (Low normal), SDMA WNL.
-Sedation: Ace 0.5mg, Torb 5mg IV.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Severe left ventricular dilation with decreased systolic function. Decreased LV wall thickness. Increased LV sphericity. Moderate to severe left atrial enlargement. The mitral valve appears thickened, without obvious prolapse into the left atrial lumen. Severe eccentric mitral regurgitation. Normal velocity. The tricuspid valve appears mildly thickened and mild TR is noted. Normal velocity. Mild right atrial and ventricular dilation. The aortic valve is normal in morphology and mobility. No AI, normal LVOT velocity. Normal pulmonic valve with no pulmonic insufficiency seen. Normal RVOT velocity. No pericardial or pleural effusion noted. No obvious cardiac tumors.

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	5.0	2.2	1.6	1.9	19	38	1.5
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	1.5	0.56	36.1	4.0	6.0	4.9
*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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, this patient has significant 4-chamber dilation and systolic dysfunction. The academic diagnosis of chronic degenerative valve disease leading to systolic dysfunction versus true primary cardiomyopathy (DCM) could be argued in this case. The severity of MR would support the latter; however, the differentiation is purely academic.



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Systolic dysfunction can develop as a primary problem or be secondary to diet, hypothyroidism, infiltrative disease, etc. A thorough diet history is recommended, screening for boutique exotic ingredient or grain-free/vegan diets. A taurine level can be submitted; however, regardless of result, recommend a taurine supplement in this case. A thyroid level can also be assessed.

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A clinical cough is concerning, although the chest radiographs were reportedly unremarkable. Regardless, given the severity of what is seen here, I would recommend full cardiac support as below including low-dose Lasix therapy. Hydrocodone may also need to be utilized for quality of life. Long term prognosis is poor with this degree of disease; however, most dogs are able to maintain a good QOL on medications for an average of 8-12 months if able to be stabilized. Referral for 24-hour care should be considered if patient appears unstable as oxygen support, IV diuretics and further monitoring may be necessary. Long term prognosis is guarded to poor, as most dogs once in CHF are able to maintain a good QOL on medications for an average of 8-12 months. Patient will always be at high risk for recurrent CHF, development of malignant arrhythmias/LA tear, and/or sudden death in the future.

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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.

WEIGHT

79.5lbs

PLAN

Recommend following oral medications: Administer Lasix 1mg/kg PO q12h. Administer Pimobendan 0.3mg/kg PO q12h. Administer spironolactone 1-2mg/kg PO q12h. Diet history/thyroid level; submit taurine level and/or supplement taurine to the diet; 1000mg PO q12h.

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Monitor SRRs at home. Monitor renal values and BP in 10-14 days, then every 3-4 months while on diuretics. If doing well/eating normally at home and BP >130mmHg, reinstitute ACE-inhibitor Enalapril or Benazepril 5mg PO q12h.

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Recheck: Recommend conservative monitoring with a recheck echocardiogram in 4-6 months, sooner if any development of associated clinical signs occurs in the interim.

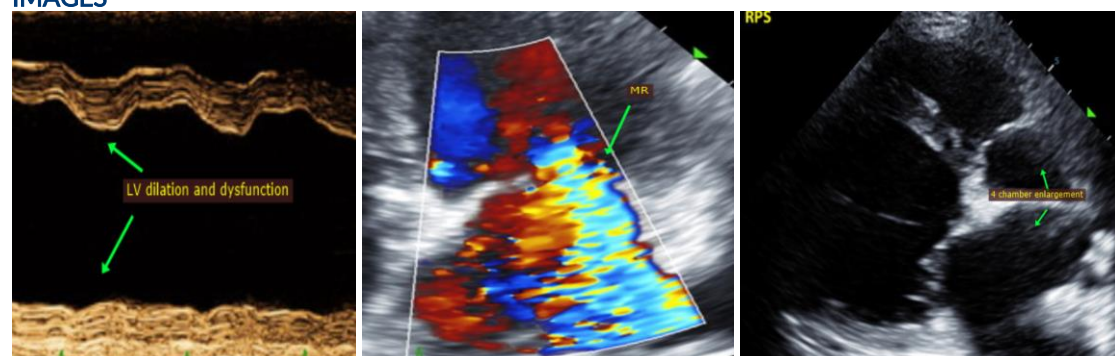
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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