



PATIENT

Tyler Coco

SPECIES

Canine

BREED

Great Pyrenees

SEX

Male Neutered

AGE

6 years

WEIGHT

138lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Travis Cerf, DVM

HOSPITAL NAME

Veterinary Cetner of
Hardyston

REFERRING VET

Dr. Cerf

INVOICE

31742

DATE

7/10/23

PRESENTING CLINICAL SIGNS

History: Came in for SX in June, Dexdomitor and Torbugesic given as a pre-med. Once P was on the table, gums became very pale. Reversed Dexdomitor with Antisedan (IM & IV). P's recovery from sedation was slow. Brief echo performed the following day concerning for LV dilation/dysfunction. History of a grain-free diet that has been changed.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild left ventricular dilation in both systole and diastole with moderate systolic dysfunction. Mildly decreased LV wall thickness and increased sphericity. Mild left atrial enlargement. The mitral valve appears thickened with no obvious prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation. Decreased velocity. The tricuspid valve appears normal in form and function. Mild TR. Mild right heart enlargement. The aortic and pulmonic valves appear normal in morphology and mobility. No AI or PI. Normal LVOT/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	4.4	NM	NM	1.5	20	36	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	NM	0.6	62.6	4.4	6.9	5.4
*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

The primary abnormality identified is mild four chamber dilation with moderate systolic dysfunction which is concerning for primary myocardial disease. Moderate MR and mild TR are noted, which may represent concurrent mild chronic degenerative valve disease. Despite these findings, the LA only mildly dilated, indicating relatively low risk for complication at this time. In the future the risk will likely increase for development of congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death.



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Systolic dysfunction can be primary in nature (DCM) or secondary to taurine deficiency, certain drugs such as Doxorubicin, myocarditis, hypothyroidism, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. In a senior giant breed dog, primary disease is certainly possible. That being said, consider testing for primary causes that may be treatable such as a full thyroid panel. A cTnI level can be submitted to further investigate possible infiltrative/inflammatory damage (myocarditis; not suspected). Finally, a taurine level may be helpful (to screen for concurrent malabsorption issue). Regardless of result, I would institute a taurine supplement to cover all bases. A thorough diet history is recommended, assessing for grain free, boutique brands and/or exotic ingredient options with a diet change if indicated. Regardless of cause, prognosis is guarded long term with risk for complications going forward.

Recommend Pimobendan in this case as below. No additional medications are indicated at this time.

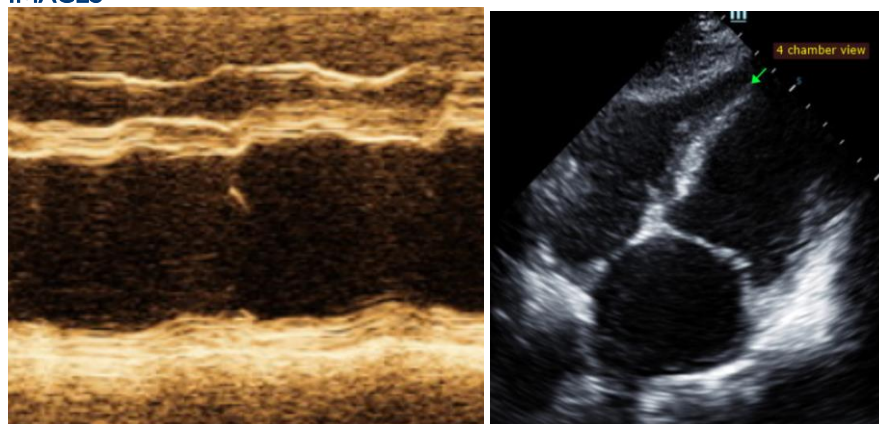
Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes in the future. Monitoring of sleeping breathing rates at home is recommended to screen for progression in the future. Mild activity restriction is advised. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

PLAN

Institute Pimobendan 0.25-0.3mg/kg PO q12h. Institute taurine supplement 1000mg PO q12h. Consider diet, thyroid panel, cTnI, taurine level as discussed.

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

IMAGES





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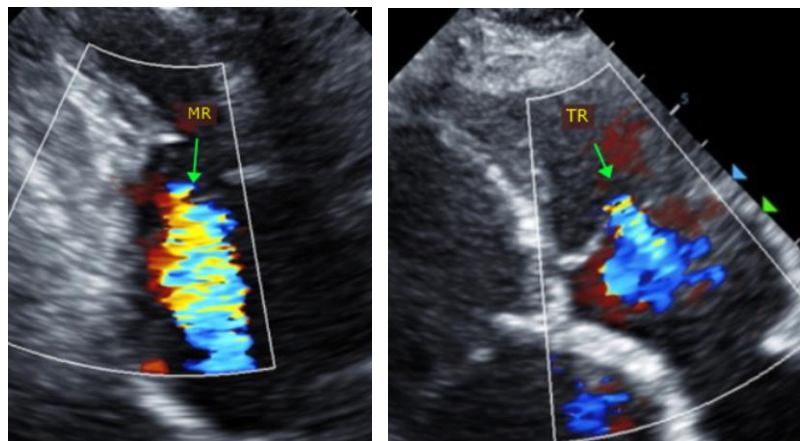
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Maggie Machen Lamy, DVM
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