



**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 Center of  
Hardyston

**REFERRING VET**

Dr. Cerf

**INVOICE**

31520

**DATE**

6/23/23

**PRESENTING CLINICAL SIGNS**

History: Came in for SX, 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. The echo was performed the following day. History of a grain-free diet that has been changed.

**ECHOCARDIOGRAM FINDINGS \* Limited exam submitted**

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Mild central mitral regurgitation with mild left atrial dilation suspected. Mild LV dilation in both systole and diastole with mildly depressed myocardial function. A short axis view is not included. The tricuspid valve appears mildly thickened. Normal right atrial and ventricular diameter and morphology; no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are subjectively normal in morphology and mobility. No pericardial or pleural effusion noted. No 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	4.9	NA	NM	1.45	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	NA	NA	62.6	4.5	6.0	4.8
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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**

Left heart changes are identified, including mild LV dilation in systole and diastole, mild central MR and mild to moderate systolic dysfunction. Given the signalment, diet history and findings, there is great concern for early cardiomyopathy in this dog. Serial monitoring is advised to assess for progression. The LA is mildly enlarged, indicating low risk for complication. It is worth noting this is not considered a complete study and recommendations may change once a full evaluation is performed.



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Given the echo findings and the recent evidence of grain free diets leading to DCM in some (but certainly not all) dogs, highly recommend change to a more standard well formulated diet. Additionally, a taurine level can be submitted, however regardless of results recommend a taurine supplement in this case as below. Monitoring for progression is advised. No clear indication for Pimobendan at this juncture; however, if any progression or clinical signs are noted this will be advised.

These findings would explain a poor response to Dexdomitor sedation with already insufficient cardiac output. This anesthetic should certainly be avoided in the future, pending further evaluation.

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

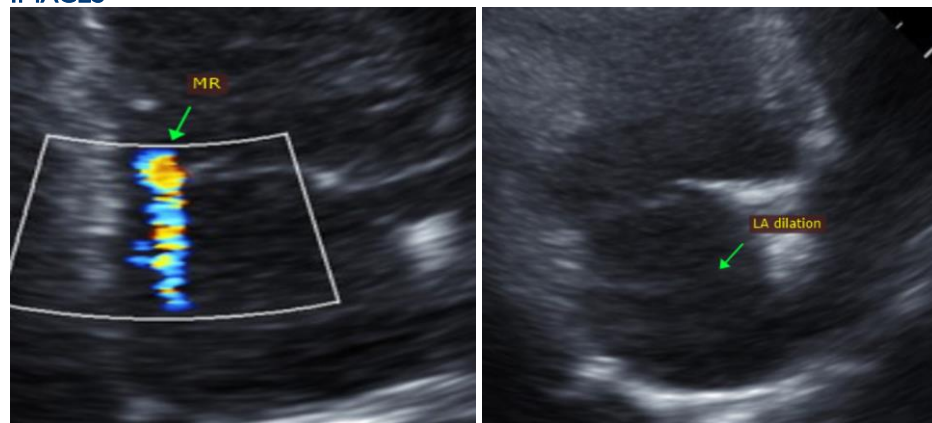
Anesthesia is not advised prior to further evaluation.

**PLAN**

Consider Taurine supplement, 1000mg q8-12h.

A full study is recommended as able for further guidance.

**IMAGES**



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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