



**PATIENT**

Gracie Moffitt

**SPECIES**

Canine

**BREED**

Dachshund

**SEX**

Female Spayed

**AGE**

12 years

**WEIGHT**

10lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Garry Gotfredson,  
DVM

**HOSPITAL NAME**

Red Hills Veterinary  
Hospital

**REFERRING VET**

Dr. Montz

**INVOICE**

21528

**DATE**

10/14/21

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. Grade 4/6 heart murmur easily heard on both sides of the chest. Referring DVM suspects she is showing clinical signs of syncope (suspected).

-Current medications: Patient is on Enalapril Maleate 2.5mg every 12 hours.

-Radiographs: Enlarged cardiac shadow, VHS 12.5.

-Abnormal lab results: Mild elevation in ALT and GGT.

-Pertinent previous echo findings (4/2021 EL): Normal LA, mild MR.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with mild left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with no significant tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

**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	NA	NM	1.4	69	94	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		0.8	4.5	2.3	2.6	0.8
*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)
<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 causing moderate mitral regurgitation. Compared to the prior study, there is slight progression; however, the overall cardiac dimensions remain mild and well compensated for. No concurrent issues such pulmonary hypertension are visualized in this study.

These findings are discordant with the radiographic evaluation reporting a significantly enlarged heart size. Consider a Radiologist review of the films if there is any question; however, what is seen here is mild. Additionally, no cardiac cause for syncope is suspected based upon mild disease. Other possibilities such as vasovagal events, intermittent arrhythmias, etc. should be



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considered. Historical information such as situational component, length, etc., may also be useful to determine syncope versus seizure.

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Given these findings, no cardiac medications are clearly indicated. Enalapril is likely unnecessary prior to severe disease and/or CHF in the absence of systemic hypertension. A baseline blood pressure is recommended. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1). Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

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Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**AGE**

12 years

**PLAN**

No obvious indication for Enalapril in the absence of systemic hypertension; baseline BP is recommended. Consider causes of syncope as discussed. Consider a Radiologist review of the films.

**WEIGHT**

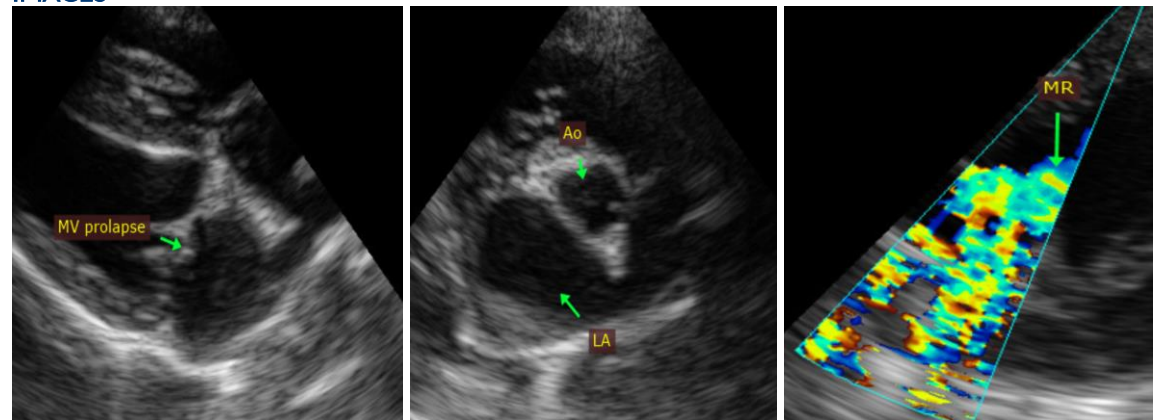
10lbs

Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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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.

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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.

**DATE**

10/14/21

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