



**PATIENT**

Logan Lovering

**SPECIES**

Canine

**BREED**

Sheltie

**SEX**

Male Neutered

**AGE**

11 years

**WEIGHT**

35.6lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Eduardo Rodriguez  
III, RCS

**HOSPITAL NAME**

Norfolk County  
Veterinary Service

**REFERRING VET**

Dr. Poor

**INVOICE**

28582

**DATE**

1/26/23

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. History chronic valvular disease- Stage B2. Presently, doing well clinically. BP: 98,98, 107mmHg. Current meds: 1) Vetmedin 5mg BID 2) Enalapril mg BID 3) Fluoxetine 15mg SID ) Apoquel 8mg SID 5)Spironolactone 18.75mg BID.  
-Pertinent previous echo findings (9/8/21 MML): LA 3.0, LA:Ao 1.4, LV 3.46 cm. Moderate LAE, moderate MR, trace TR (2.2 m/s).

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is increased with hyperdynamic function. LV wall thicknesses are normal.

**Left atrium:** The left atrium is severely dilated.

**Mitral valve:** The mitral valve is diffusely thickened with significant prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with a normal velocity.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** Mild right ventricular enlargement.

**Right atrium:** Mild RA enlargement.

**Tricuspid valve:** The tricuspid valve appears mildly thickened with mild septal prolapse and moderate tricuspid regurgitation. Normal velocity.

**Pulmonic valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 140bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.7
LA diam (cm)	4.0
LA:Ao (Swe)	2.4
IVS thickness (cm)	0.7
LVID diastole (cm)	3.9
PW thickness (cm)	0.6
LVID systole (cm)	2.4
FS (%)	40

**Doppler Measurements**

PV Vmax (m/s)	0.4
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	4.7
TR Vmax (m/s)	2.7
TR PG (mmHg)	30

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease persists with evidence of stability. Severe mitral and moderate tricuspid regurgitation are unchanged and the left heart dimensions appear stable without obvious progression. Pulmonary pressures have normalized, likely due to medications and no additional concurrent issues are documented.

Given these findings, continue all medications as prescribed. One exception is the blood pressure is reportedly low and Enalapril may be contraindicated. Reassessment is advised, particularly if the patient is not showing any signs of hypotension, such as lethargy.

Close monitoring for change in breathing at home is recommended with a guarded prognosis remaining. Unfortunately, the 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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**RECOMMENDATIONS**

- Continue Pimobendan as prescribed.
- Consider wean or discontinue Enalapril based upon reassessment of blood pressure.
- Continue Spironolactone 1-2mg/kg PO q12h.
- Close monitoring for development of associated clinical signs (development of a cough, labored breathing, exercise intolerance or worsening collapse episodes) is recommended. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Mild activity restriction is advised.
- Elective anesthesia is not advised, as there is high risk for complication. If necessary, cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso or sevoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 cage. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Moderate IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**PLAN**

- A renal panel is recommended every 3-4 months lifelong.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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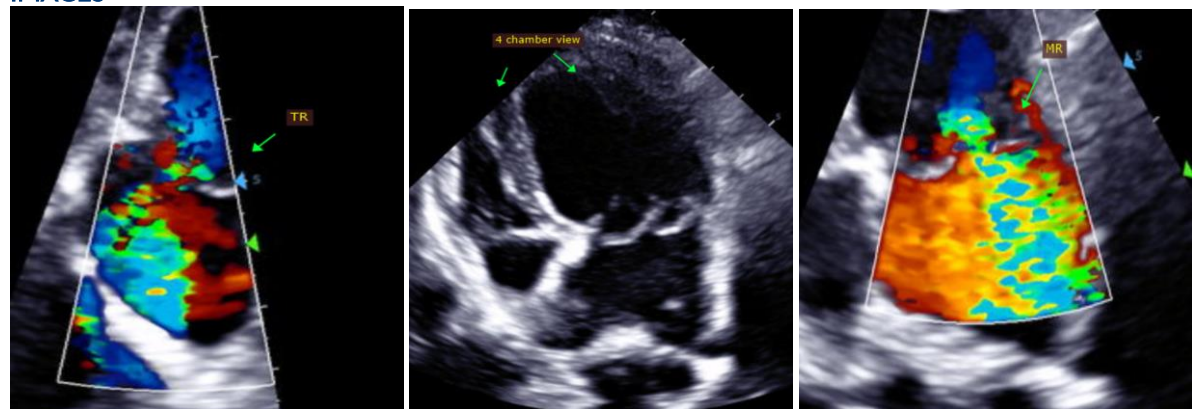
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**IMAGES**



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  
 Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
 info@sonopath.com

Echocardiogram performed by: Eduardo Rodriguez III, RCS  
 Pet Animal Ultrasound Service ([4paus.com](http://4paus.com))