



**PATIENT**

Roxie Thompson

**SPECIES**

Canine

**BREED**

Miniature Schnauzer

**SEX**

Female Spayed

**AGE**

9 years

**WEIGHT**

17.9lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

26089

**DATE**

8/30/22

**PRESENTING CLINICAL SIGNS**

History: Roxie was noted to have a heart murmur in April when she was seen for urinary incontinence. Her primary would like to start phenylpropanolamine but wishes to have her echo done first. Roxie has a decrease in her appetite along with some vomiting noted the past few days---other dogs in house were recently seen for gastroenteritis with no obvious disease process. Roxie continues to have normal activity. On exam: NSR , grade III/VI murmur with PMI left apical area, PSS, lung fields clear. BP: 170mmHg x 5. Currently, no medications \*No sedation for study.

**ECHOCARDIOGRAM FINDINGS**

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

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

**Left atrium:** The left atrium is borderline moderately dilated.

**Mitral valve:** The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Moderate 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:** Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

**Right atrium:** Normal RA dimension.

**Tricuspid valve:** The tricuspid valve appears mildly thickened with septal prolapse and mild to 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 100bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.5
LA diam (cm)	2.2
LA:Ao (Swe)	1.5
IVS thickness (cm)	0.6
LVID diastole (cm)	3.2
PW thickness (cm)	0.6
LVID systole (cm)	1.6
FS (%)	50

**Doppler Measurements**

PV Vmax (m/s)	0.73
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	5.0
TR Vmax (m/s)	2.4
TR PG (mmHg)	23

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease causing moderate mitral and mild to moderate tricuspid regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. No additional issues are identified.

Given LA dilation, Pimobendan is recommended as below. This is a slightly conservative recommendation based upon these findings. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).



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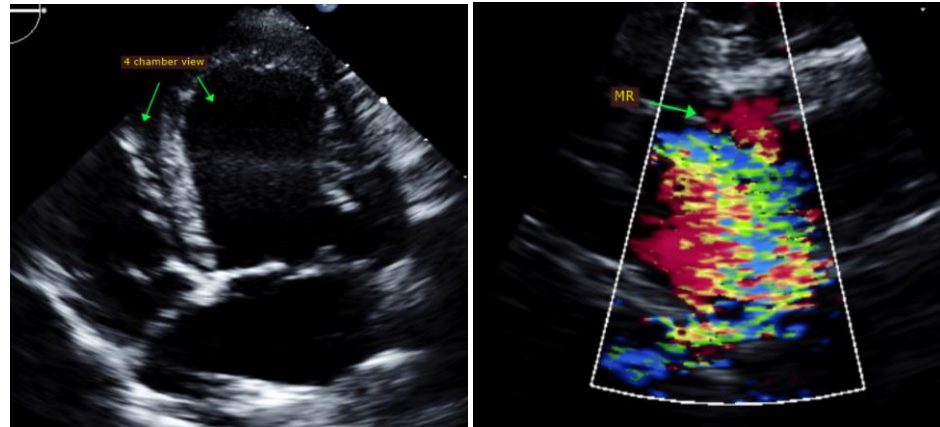
**RECOMMENDATIONS**

- Institute heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Once on Pimobendan for 3-5 days, 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.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**PLAN**

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

**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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**Echocardiogram performed by:** Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)