



**PATIENT**

Bella Peterson

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Female Spayed

**AGE**

11 years

**WEIGHT**

5.56lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM DACVIM (Cardiology)

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. History chronic valvular disease - Stage B2. Presently, Bella is doing ok but the cough is progressive. She coughs throughout the day. Bella is eating well with normal activity. On exam: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear, mm pink, moist, CRT<2. BP: 140mmHg x 5. Current medications: 1) Hycodan 5mg/5mls twice a day 2) Pimobendan/vetmedin 1.25mg 1/2 tab twice a day \*No sedation for study.

-Pertinent previous echo findings (4/19/22 MML): LA 2.3 cm; LA:Ao 1.9; LV 2.5 cm; moderate LAE; normal LV size; moderate MR; mild TR (5 m/s; 100 mmHg); severe pulmonary hypertension (new findings at this study).

**ECHOCARDIOGRAM FINDINGS**

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

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

**Left atrium:** The left atrium is 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 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 150bpm.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

28081

**DATE**

1/4/23

**2-Dimensional Measurements**

Ao diam (cm)	0.9
LA diam (cm)	1.8
LA:Ao (Swe)	2.0
IVS thickness (cm)	0.4
LVID diastole (cm)	2.5
PW thickness (cm)	0.5
LVID systole (cm)	1.4
FS (%)	44

**Doppler Measurements**

PV Vmax (m/s)	0.88
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	6.0
TR Vmax (m/s)	5.5
TR PG (mmHg)	120

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease persists with overall stability. The left and right heart dimensions are unchanged and pulmonary pressures remain severely elevated, despite this, no progressive right heart enlargement is appreciated. No additional issues are identified.

Given these findings, no change to the medications is warranted at this time. The cough remains likely to be primary respiratory in origin and more aggressive Hydrocodone, a course of Baytril, etc. can be considered. Continue Pimobendan as previously recommended. No obvious indication for Sildenafil unless there is a change in breathing comfort or any syncopal episodes.



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Assessment of progression in the future will help predict long term outcome, however prognosis remains guarded at this stage (B2).

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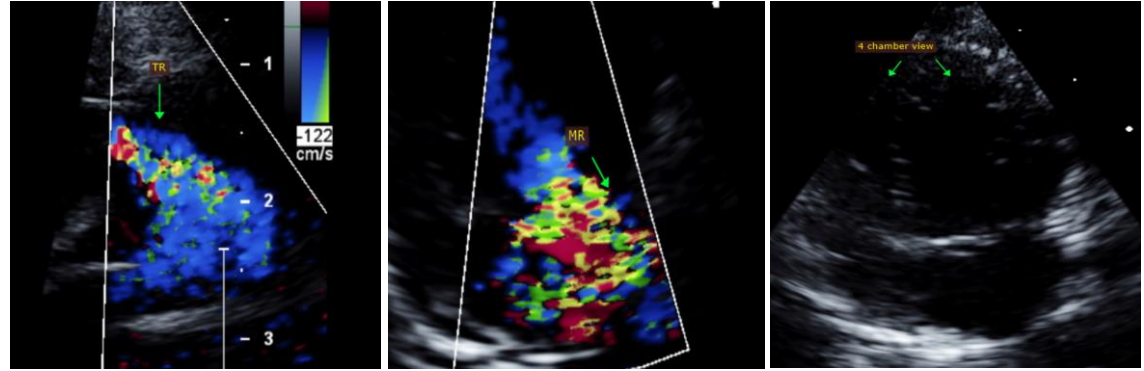
**RECOMMENDATIONS**

- Continue Pimobendan as prescribed.
- Monitor BP every 6 months.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- 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**



**INTERPRETED BY**  
Maggie Machen Lamy, DVM DACVIM (Cardiology)

**IMAGING PERFORMED BY**  
Pamela Harrigan, RDCS

**HOSPITAL NAME**  
Mass Veterinary Services

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.

**REFERRING VET**  
Dr. Masloski

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.

**INVOICE**  
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**Maggie Machen Lamy, DVM**  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
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**DATE**  
1/4/23

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