



**PATIENT**  
Isabella Calvanese

**SPECIES**  
Canine

**BREED**  
Chihuahua

**SEX**  
Female Spayed

**AGE**  
13 years

**WEIGHT**  
6.88lbs

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

**IMAGING PERFORMED BY**  
Pamela Harrigan,  
RDCS

**HOSPITAL NAME**  
Mass Veterinary  
Services

**REFERRING VET**  
Dr. Masloski

**INVOICE**  
24408

**DATE**  
5/25/22

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. History chronic valvular disease - Stage B2. Current presentation: Increased coughing when excited and after lying down. Isabella's primary increased the diphenoxylate with no improvement in coughing. Her respiratory rate is increased after coughing fits. Good appetite and normal activity level. on exam today: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear. BP: 130mmHg x 3. Current medications: 1) Pimobendan/vetmedin 1.25mg 1 caplet daily 2) Diphenoxylate with atropine/Lomotil 2.5mg 1/2 tab three times a day 3) mobility bit daily 4) cardiac supplement daily \*No sedation for study.  
-Pertinent previous echo findings (12/7/21 Maggie Machen Lamy, DVM, DACVIM-Cardiology): LA 1.9 cm; LA:ao 1.5; LV 2.5 cm; moderate LAE; moderate MR; mild TR (2.7 m/s; 30 mmHg).

**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 moderate tricuspid regurgitation. Velocity consistent with mild pulmonary hypertension.  
**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.

**2-Dimensional Measurements**

Ao diam (cm)	1.2
LA diam (cm)	1.9
LA:Ao (Swe)	1.7
IVS thickness (cm)	0.55
LVID diastole (cm)	2.3
PW thickness (cm)	0.51
LVID systole (cm)	1.1
FS (%)	52

**Doppler Measurements**

PV Vmax (m/s)	0.85
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	5.6
TR Vmax (m/s)	3.2
TR PG (mmHg)	41

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease persists with slight progression. The left heart dimensions are stable; however, the TR is increased with early pulmonary hypertension. This is likely secondary to a reported cough, in addition to chronic LA pressure elevation. No additional issues are identified.

The reported history in addition to these findings would make CHF an unlikely cause of the increased coughing. Baseline CXR are recommended; however, Hydrocodone will likely be beneficial to improve the symptom in replacement of Lomotil. If there was an acute increase, a course of Baytril or similar pulmonary antibiotic may also be beneficial.



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Continue Pimobendan as previously recommended. Continue assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

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Canine

**RECOMMENDATIONS**

- Continue Pimobendan as prescribed.
- Consider Hydrocodone, CXR, Baytril, etc.
- 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.

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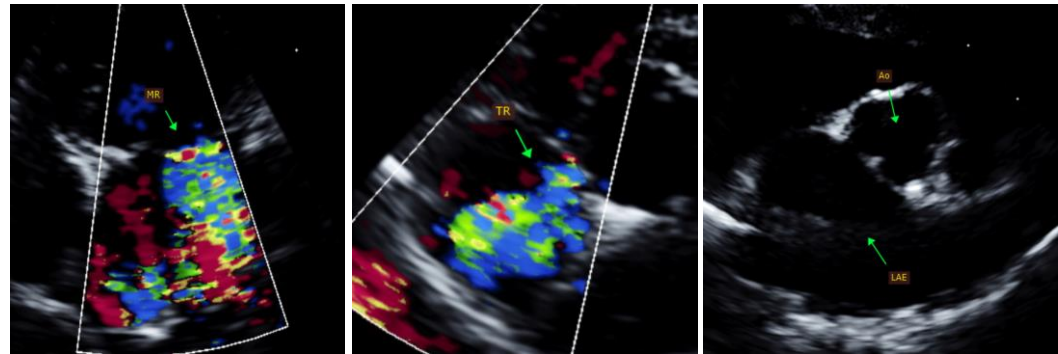
**PLAN**

- 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**  
24408

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com

**DATE**  
5/25/22

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