



**PATIENT**

Whiskey Spring

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Female Spayed

**AGE**

14 years

**WEIGHT**

10.6lbs

**PRESENTING CLINICAL SIGNS**

History: New patient with no history of murmur noted in previous records. On auscultation, grade II/VI systolic murmur heard. Patient has advanced dental disease. On Denamarin and Omeprazole. Sedated with trazadone for study.

**ECHOCARDIOGRAM FINDINGS**

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

**Left ventricle:** The LV is normal in dimension with adequate function. LV wall thicknesses are normal.

**Left atrium:** The left atrium is normal.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Trace/mild mitral regurgitation with a normal velocity.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. Trace aortic insufficiency.

**Right ventricle:** Normal right ventricular diameter and morphology.

**Right atrium:** Mild RA enlargement.

**Tricuspid valve:** The tricuspid valve appears mildly thickened with moderate tricuspid regurgitation. Velocity consistent with early 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 140bpm.

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**2-Dimensional Measurements**

Ao diam (cm)	1.37
LA diam (cm)	1.4
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.6
LVID diastole (cm)	2.0
PW thickness (cm)	0.6
LVID systole (cm)	1.2
FS (%)	43

**Doppler Measurements**

PV Vmax (m/s)	NM
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	5.9
TR Vmax (m/s)	3.0
TR PG (mmHg)	36

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
RDCE

**INTERPRETATION OF THE FINDINGS**

Chronic degenerative valve disease causing trace/mild mitral and moderate tricuspid regurgitation. Mild right atrial enlargement indicates there is relatively low risk for imminent complication at this time; however, follow up is certainly advised. Mild pulmonary hypertension is noted which is unknown significance in an asymptomatic dog. That being said, this may explain why the quantity of TR is greater than MR, which is somewhat unusual. Finally, trace aortic insufficiency is identified and a baseline blood pressure is recommended. No additional issues are identified.

**HOSPITAL NAME**

Littleton Animal  
Hospital

**REFERRING VET**

Dr. Brooks

**INVOICE**

22502

**DATE**

2/10/22

Given only mild right atrial dilation, no medications are clearly indicated. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B1).



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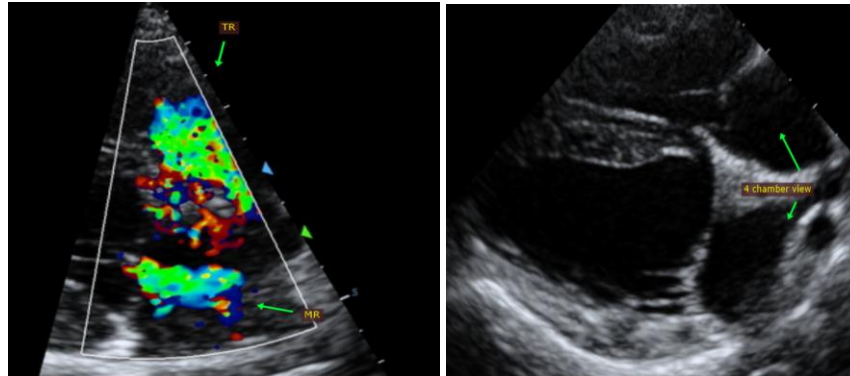
**RECOMMENDATIONS**

- No medications are indicated.
- Assess BP as discussed.
- 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**



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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