



**PATIENT**

Milo Trombley

**SPECIES**

Canine

**BREED**

Miniature Pinscher

**SEX**

Male Neutered

**AGE**

10 years

**WEIGHT**

12.6lbs

**PRESENTING CLINICAL SIGNS**

History: Grade IV-V/VI cardiac murmur heard on routine physical exam. He is coughing, recently treated with Doxycycline for potential URI; however, cough persists.

**ECHOCARDIOGRAM FINDINGS**

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

**Left ventricle:** Significant LV dilation with hyperdynamic myocardial function.

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

**Mitral valve:** Diffuse thickening of mitral valve leaflets with prolapse into the left atrial lumen. Flail leaflet with a ruptured primary chordae tendinae. 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 RV dilation.

**Right atrium:** Mild right atrial dilation.

**Tricuspid valve:** The tricuspid valve appears thickened with septal prolapse and moderate tricuspid regurgitation. Elevated velocity consistent with mild to moderate pulmonary hypertension.

**Pulmonic valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. The MPA appears mildly dilated. Normal pulmonic outflow velocities with laminar flow. Trace PI.

**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.

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**2-Dimensional Measurements**

Ao diam (cm)	1.3
LA diam (cm)	3.0
LA:Ao (Swe)	2.5
IVS thickness (cm)	0.6
LVID diastole (cm)	3.3
PW thickness (cm)	0.6
LVID systole (cm)	1.3
FS (%)	61

**Doppler Measurements**

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	4.8
TR Vmax (m/s)	3.5
TR PG (mmHg)	50

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
RDCS

**INTERPRETATION OF THE FINDINGS**

The cause of the murmur is chronic degenerative valve disease causing severe mitral and moderate tricuspid regurgitation. Severe left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. A primary ruptured chordae tendinae is visualized, which is typically an acute occurrence that can lead to decompensation, syncope or coughing. Mild to moderate pulmonary hypertension is noted, which is likely secondary to chronic LA pressure elevation. No additional issues are identified.

**HOSPITAL NAME**

Airport Animal  
Hospital

**REFERRING VET**

Dr. Gudluru

**INVOICE**

32332

**DATE**

8/11/23

In light of the clinical signs, finding of a ruptured chord and severity of disease on echocardiogram, there is great concern that the cough is suggestive of early CHF and full cardiac supportive medications are warranted lifelong as below. Hydrocodone can be used for any persistent cough in the face of normal breathing rates to improve QOL.



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Milo Trombley

The average survival time of canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. 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**

- Baseline BP/CXR recommended.
- Institute lasix/furosemide 1-2mg/kg PO q12h.
- Institute Spironolactone 1-2 mg/kg PO q 12h.
- Institute Pimobendan 0.25-0.3 mg/kg PO q12h.
- Cough suppression to improve QOL can also be considered (hydrocodone, 0.2-0.4mg/kg up to q4-6h PRN) for any residual mechanical cough in the face of normal sleeping respiratory rates.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.
- Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home.
- Elective anesthesia is not advised.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

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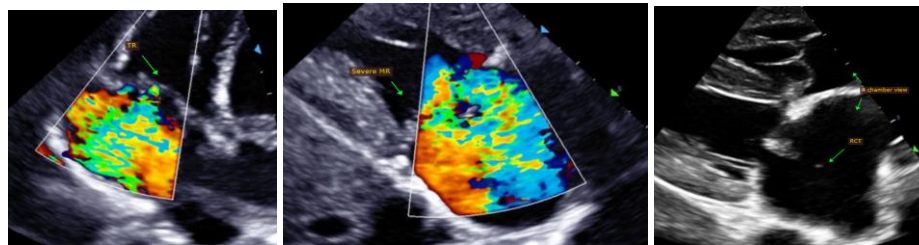
**PLAN**

- Monitor renal values and BP in 1-2 weeks, then every 3-4 months lifelong. If doing well and BP >130mmHg, institute ACEI 0.5mg/kg PO q12h.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

**INTERPRETED BY**

Maggie Machen Lamy, DVM  
 DACVIM (Cardiology)

**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.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**HOSPITAL NAME**

Airport Animal Hospital

**REFERRING VET**

Dr. Gudluru

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.

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



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Milo Trombley

Echocardiogram performed by: Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service ([4paus.com](http://4paus.com))

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