



**PATIENT**

Rusty Miranda

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Male Intact

**AGE**

12.9 years

**WEIGHT**

6.4lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Wood River Animal  
Hospital

**REFERRING VET**

Dr. Schuelke

**INVOICE**

32146

**DATE**

8/4/23

**PRESENTING CLINICAL SIGNS**

History: Recheck echocardiogram. Patient has started to cough more despite switching to Torsemide due to refractory CHF on 5/26. Kidney values are slightly elevated after starting Torsemide. Creatinine 2.0, BUN 89. Other than coughing more, patient is doing well. Current meds: 1) Torsemide 5mg- 1/4t PO SID, 2) Pimobendan 1.25mg - Give 1 tablet q12 hours, 3) Spironolactone 25mg - 1/4 tablet q12 hours, 4) Hycodan 5mg/1.5mg/5ml- Give 1-1.5 ml PO q6-8 hours.

-Pertinent previous echo findings (1/20/23 MML): LA 2.5 cm, LA:Ao 2.1, LV 2.6 cm, severe LAE, RCT of MV with flail anterior leaflet, severe MR, mild TR (2.8 m/s, 32 mmHg), mild pulmonary hypertension.

**ECHOCARDIOGRAM FINDINGS**

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

**Left ventricle:** Moderate 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. Evidence of a primary ruptured chordae tendineae and flail anterior leaflet (see below). Severe eccentric mitral regurgitation. 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 mildly thickened, with mild tricuspid regurgitation. Normal velocity.

**Pulmonic valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. The MPA is normal. Normal pulmonic outflow velocities with laminar flow. No 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.

**2-Dimensional Measurements**

Ao diam (cm)	1.1
LA diam (cm)	2.5
LA:Ao (Swe)	2.3
IVS thickness (cm)	0.5
LVID diastole (cm)	3.1
PW thickness (cm)	0.5
LVID systole (cm)	1.2
FS (%)	60

**Doppler Measurements**

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	0.9
MR Vmax (m/s)	5.0
TR Vmax (m/s)	2.7
TR PG (mmHg)	30

**INTERPRETATION OF THE FINDINGS**

Compared to the prior study, findings are similar. Severe mitral and mild tricuspid regurgitation are unchanged. The LV is progressively dilated; however, the LA dimension is unchanged. Pulmonary hypertension is no longer apparent, and no additional issues are identified.

Given these findings, continue 3 medications as prescribed. A baseline BP is recommended with use of an ACE-I if reasonable. A persistent cough is likely due to mainstem bronchi compression, given that it did not respond to diuretic therapy. Consider repeat CXR for more information.



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Even with stability seen here, prognosis is poor long-term with an average survival time of <1 year. It is encouraging that the patient is doing relatively well overall. There will always be risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

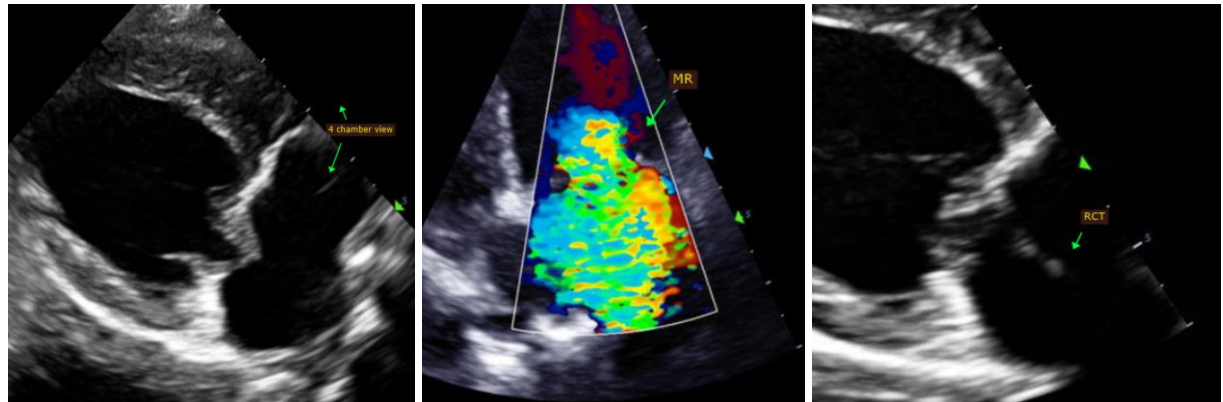
**RECOMMENDATIONS**

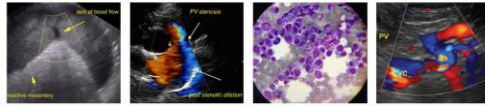
- Continue 3 medications as prescribed.
- Monitor renal values every 3-4 months lifelong.
- Consider an ACE-I depending on BP.
- Monitor for development of atrial fibrillation as discussed previously.
- Continue cough suppression and CXR are recommended.
- Monitor for development of a cough, labored 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.

**PLAN**

- Monitor renal values and BP every 3-4 months lifelong.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

**IMAGES**





**PATIENT**

Rusty Miranda

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.

**SPECIES**

Canine

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.

**BREED**

Chihuahua

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

**SEX**

Male Intact

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

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