



**PATIENT PRESENTING CLINICAL SIGNS**

**Rudy Sierra**  
History: Grade III/VI parasternal systolic murmur. History hyperthyroidism well controlled on Methimazole 2.5 mg BID. BP: 162, 165, 175mmHg  
-Abnormal PE/Chem/CBC/UA Results: SDMA=29; CREA=3.2; BUN=55.

**SPECIES ECHOCARDIOGRAM FINDINGS**

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

**BREED**  
**DSH**  
**Left ventricle:** The LV diameter is decreased with adequate myocardial function. The LV wall thicknesses are asymmetric with moderate to severe hypertrophy overall. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are severely hypertrophied and hyperechoic. The endocardium appears mildly remodeled.

**SEX**  
**Male Neutered**  
**Mitral valve:** The anterior leaflet of the mitral valve appears normal with minimal thickening. Systolic anterior motion is seen on 2D imaging. Mild eccentric MR.

**AGE**  
**10 years**  
**Right atrium:** The left atrium is mildly dilated. No obvious smoke seen.

**WEIGHT**  
**9.5lbs**  
**Mitral valve:** The anterior leaflet of the mitral valve appears normal with minimal thickening. Systolic anterior motion is seen on 2D imaging. Mild eccentric MR.  
**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Increased aortic outflow velocity with a dynamic profile. No aortic insufficiency.  
**Right ventricle:** Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.  
**Right atrium:** The right atrium is normal in dimension.  
**Tricuspid valve:** The tricuspid valve appears normal with no tricuspid regurgitation.  
**Pulmonary valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; however, a dynamic RVOT obstruction is suspected on color flow imaging.

**INTERPRETED BY**  
**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.  
**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 200bpm.

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**2-Dimensional Measurements**

Ao diam (cm)	1.2
LA diam (cm)	1.5
LA:Ao (Swe)	1.3
IVS thickness (cm)	0.78
LVID diastole (cm)	1.0
PW thickness (cm)	0.97
LVID systole (cm)	0.4
FS (%)	62

**Doppler Measurements**

PV Vmax (m/s)	1.2
AoV Vmax (m/s)	2.6
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDMS

**HOSPITAL NAME**

Parkway Veterinary  
Hospital

**REFERRING VET**

Dr. Cowan

**INVOICE**

26654

**DATE**

9/30/22

**INTERPRETATION OF THE FINDINGS**

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy significant in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. There is mild left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event, while currently low, may be elevated in the future. In this normotensive controlled hyperthyroid patient these are likely unrelated; however, serial monitor is advised.

While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. Given the degree of obstruction and mild LA dilation, recommend initiate at this time as below. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months.



**PATIENT**

Rudy Sierra

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

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**WEIGHT**

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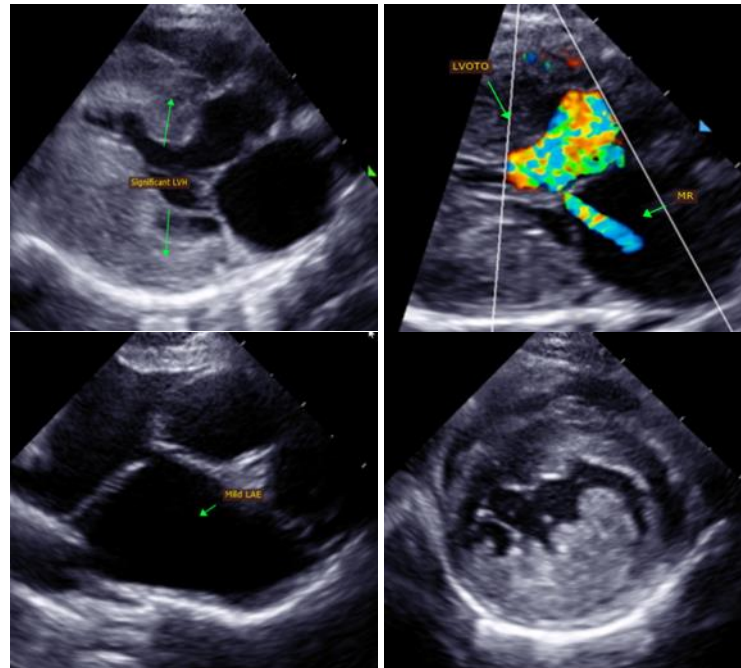
**RECOMMENDATIONS**

- Administer titrating dose of atenolol if able: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Monitor BP/T4 q6mo.
- Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.
- Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

**PLAN**

- Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

**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.

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