



**PATIENT**

Bronson Barbieri

**SPECIES**

Feline

**BREED**

DLH

**SEX**

Male Neutered

**AGE**

17 years

**WEIGHT**

10.6lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**PRESENTING CLINICAL SIGNS**

History: Bronson was noted to have a heart murmur in February, 2019. An arrhythmia was noted in May, 2021. No dyspnea noted. Bronson continues to eat but less than in the past with normal activity for a feline of his years. On exam: transient arrhythmia, grade IVVI murmur noted best on sternum, PSS, lung fields clear, compressible thorax . BP: 160-170 mmHg. Medications: 1) Potassium supplement if he will take it 2) Mirtazipine as needed for appetite  
\*No sedation for study.

**ECHOCARDIOGRAM FINDINGS**

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

**Left ventricle:** The LV diameter is decreased with adequate myocardial function. The LV wall thicknesses are mildly increased with an asymmetric appearance. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic. The endocardium appears mildly remodeled.

**Left atrium:** The left atrium is normal. No smoke or thrombi seen.

**Mitral valve:** The anterior leaflet of the mitral valve appears largely normal. Systolic anterior motion is seen on multimodal imaging. Trace eccentric MR secondary to SAM.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Elevated aortic outflow velocity seen on Spectral doppler 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. The RVOT velocity is elevated on color flow suggesting a dynamic obstruction.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 240bpm.

**2-Dimensional Measurements**

Ao diam (cm)	1.1
LA diam (cm)	1.2
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.68
LVID diastole (cm)	1.0
PW thickness (cm)	0.63
LVID systole (cm)	0.33
FS (%)	70

**Doppler Measurements**

PV Vmax (m/s)	2.0
AoV Vmax (m/s)	3.5
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**IMAGING**

**PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

24890

**DATE**

6/21/22

**INTERPRETATION OF THE FINDINGS**

The diagnosis and cause of the murmur is hypertrophic obstructive cardiomyopathy (HOCM). This indicates some degree of LV thickening (mild in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. The LV chamber is decreased in size and volume depletion should be ruled out as a possible contributing issue. Regardless, there is no left atrial dilation, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is relatively low. Additionally, a dynamic RVOT obstruction is noted which is a benign finding that will also contribute to murmur intensity. No additional issues are identified. Hyperthyroidism should be ruled out as a possible contributing factor in this patient.



**PATIENT**

Bronson Barbieri

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. In a senior cat without clinical signs or LAE, simple monitoring is advised. Prognosis is guarded given the highly variable rates of progression with subclinical feline cardiomyopathy.

**SPECIES**

Feline

**RECOMMENDATIONS**

- Baseline lab work is strongly recommended.
- Screening BP/T4 every 6 months.
- 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. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

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**PLAN**

- Recommend recheck echocardiogram in 6 months to assess rate of progression, sooner if any issues arise in the interim.

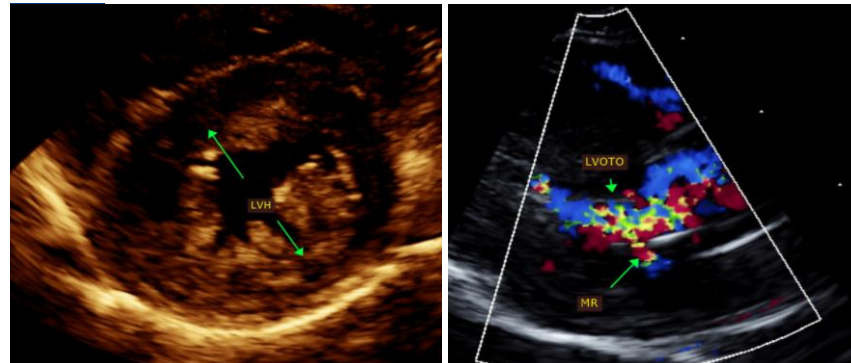
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**IMAGES**

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DACVIM (Cardiology)



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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**

24890

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

**DATE**

6/21/22

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