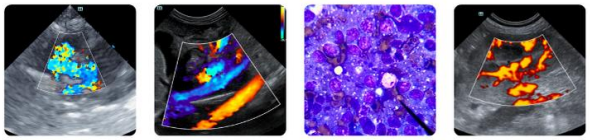



**PATIENT**

Edward Brashear

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male

**AGE**

6.5 months

**WEIGHT**

9.76lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Joanne Goodman, DVM

**HOSPITAL NAME**

Evendale-Blue Ash Pet Hospital

**REFERRING VET**

Dr. Wehmer

**INVOICE**

47606

**DATE**

4/17/26

## PRESENTING CLINICAL SIGNS

History: 12/12/25: Left-sided grade 2 heart murmur, no arrhythmias. 1/2/26: Several interrupted beats correlating with elevated heart rate, grade 2/6 systolic murmur on left side and bilaterally when heart rate elevated. Asymptomatic. Assess prior to anesthesia for neuter. BP: 147, 141, 111, 162mmHg.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderately hypertrophied for this signalment. There is a mildly hyperechoic endocardium. The papillary muscles are significantly enlarged. The right ventricle is subjectively normal in size and morphology. Mild left atrial dilation. No right atrial enlargement present. Normal RVOT velocity. Mild thickening and elongation of the anterior MV leaflet. Systolic anterior motion (SAM) of the mitral valve is seen on 2D and color flow imaging (not captured on spectral doppler), causing an LVOT obstruction. Mild eccentric mitral regurgitation seen. No tricuspid regurgitation. No other obvious valvular regurgitation is present. There is no pericardial or pleural effusion appreciated.

## CARDIAC CHART

| **FELINE CARDIAC PARAMETERS** | **BODY WEIGHT** (kg) | **HR** (BPM) | **IVSd** (cm) (Moise, Pipers) | **LVIDd** (cm) (Moise, Pipers) | **LVWd** (cm) (Moise, Pipers) | **FS** (%) | **EF** (%) |
|---|---|---|---|---|---|---|---|
| **NORMAL PARAMETER** | ------ | 150-240 | 0.35-0.55 | <2 (mean 1.5) | 3.5-0.55 | 35-67 | 80-100 |
| **PATIENT** | 4.4 | NM | 0.68 | 1.3 | 0.67 | 52 | 90 |
| **FELINE CARDIAC PARAMETERS** | **LA/AO** (Boon) | **LA/AO HEART BASE (Swe)** (Abbott) | **LA** 2D short axis Base view (cm) (Abbott) | | **LVOT VEL** (m/s) | **RVOT VEL** (m/s) | **E max** (m/s) |
| **NORMAL** | <1.5 | <1.3 | <1.2 | | <1.6 | <1.3 | <0.9 |
| **PATIENT** | NM | 1.5 | 1.2 | | 1.5 | 0.9 | NM |

***Note: All measurements based upon multi-modal images and methods. An average value is reported.***
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The likely diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy (moderate for this signalment) with a dynamic LVOT obstruction and secondary MR. The mitral valve is also mildly thickened and elongated, which may suggest a primary mitral valve dysplasia as an alternative explanation. Regardless, what is seen here is significant with an LVOT obstruction, mild LA enlargement and significant LV hypertrophy at a very young age. This suggests risk for complication going forward.

Typically, medicating a 6-month-old kitten is not recommended. That being said, given significant findings, consider institute Atenolol with up titration as the patient grows. In cases of mitral valve dysplasia, this can lead to improved LV wall dimensions over time and that would be

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the hope in this case. If there is an aversion to medicating, simply reassessing in 6 months is recommended. Discussion with the owner is advised.

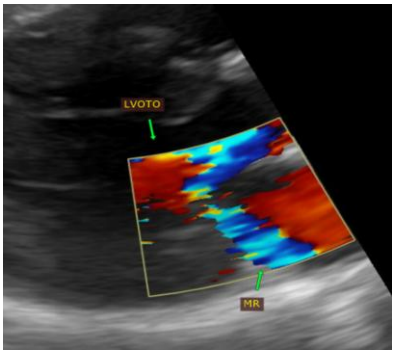
Prognosis is guarded due to the highly variable rates of progression with subclinical feline cardiomyopathy. What is seen here is certainly concerning for progressive issues in this case. Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

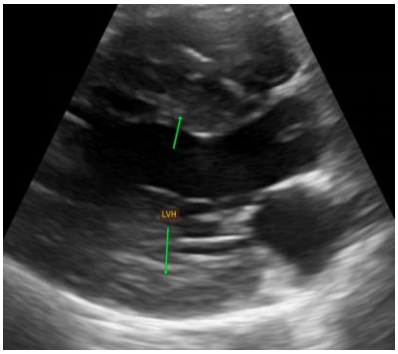
Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance.

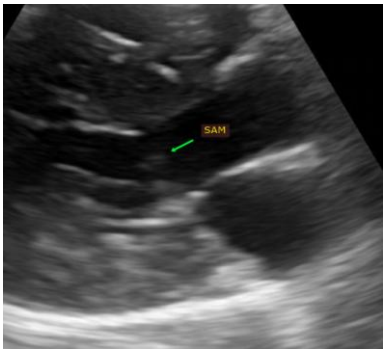
## PLAN

If able, administer Atenolol titrating dose of atenolol: 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.
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.

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