



PATIENT

Huey Smith

SPECIES

Feline

BREED

Birman

SEX

Male Neutered

AGE

11 years

WEIGHT

10.8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kelly Romero, DVM

HOSPITAL NAME

FC Veterinary
Emergency Hospital

REFERRING VET

Dr. Romero

INVOICE

22818

DATE

2/27/22

PRESENTING CLINICAL SIGNS

History: No previous murmur. Workup one week ago with blood work, abdominal and thoracic rads and ProBNP were all WNL. Had a dental cleaning. On Wednesday of this week, developed constipation. Was given IVF and several enemas before developing respiratory distress on Saturday. Transferred to the emergency clinic. Littermate died from HCM. PE - Systolic grade 3/6 murmur, RR rate initially 50, has decreased to 40 with O2 and furosemide. Moderate amount of firm stool on abdominal palpation. Temp 103. Blood pressure 98mmHg (later improved to 140mmHg). T4 0.9. BUN/Creat 70/2.9 Current treatments - furosemide. Has been weaned off of O2. Relative bradycardia, HR: 120bpm. Assess prior to anesthesia.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderately hypertrophied with an asymmetric appearance (IVSd > LVWd). There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Regions of irregularity. Mild papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. There is mild to moderate left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. There is suspect systolic anterior motion (SAM) on 2D imaging (heart rate dependent); however, not captured on Spectral. There is mild eccentric mitral regurgitation present. No tricuspid regurgitation. No other obvious valvular regurgitation is present. No pericardial or pleural effusion seen.

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	4.9		0.73	1.3	0.63	50	85
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	1.56	1.6	1.6		1.3	0.6	NM
<p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> 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.</p>							

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. Thyroid status should be considered in this normotensive cat; however, the familial history is concerning for primary disease. A small mitral leak is noted and there is suspicion for an intermittent LVOTO, which should be monitored going forward. The left atrium is mild to moderately dilated, which indicates risk for complication.



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Regardless of definitive underlying etiology, the left atrial dimension is concerning and the risk for clinical issues is elevated. My assumption is this is a case of subclinical disease that was pushed into a fluid overloaded state. Given that the patient is doing well at this time with improved systemic pressures, it is reasonable to continue low-dose Lasix and Plavix for the time being and reassess in the future. These medications may be able to be discontinued pending serial LA measurements. No obvious indication for Atenolol at this time, as the LVOTO appears intermittent, and no chronic murmur is reported. Prognosis is guarded in cats with LA dilation; however, assuming the systemic issues can be managed we may be able to stabilize the situation.

Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.). High risk for iatrogenic fluid or steroid overload in the future.

If needed, anesthetic risk is considered moderately elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Significant IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

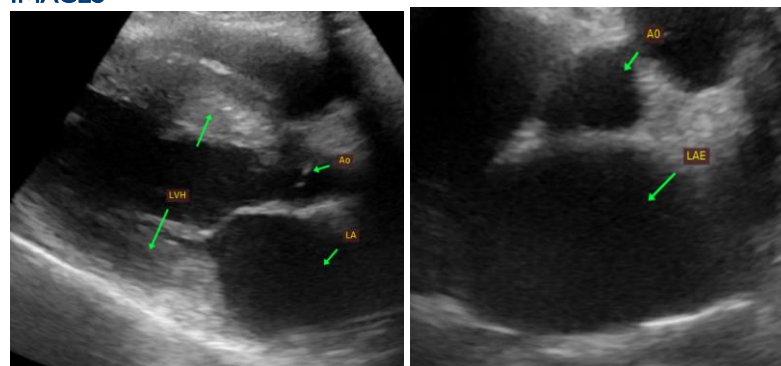
PLAN

Continue Lasix 1mg/kg PO q12h. Consider institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges).

Recheck renal values and BP in 1-2 weeks.

A brief recheck echocardiogram is recommended in 3-4 months to determine if medications need to be continued. A full recheck echocardiogram is recommended in 6-12 months to screen for progression of disease.

IMAGES





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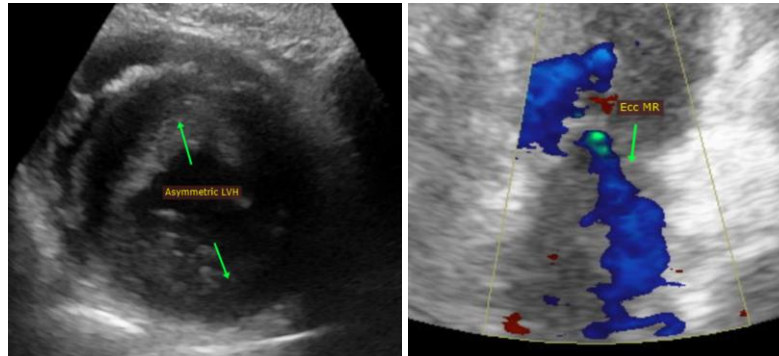
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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