



PATIENT

Leo Lee

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

13 years

WEIGHT

6.56 kg

INTERPRETED BY

Bradley Harris, DVM,
 DACVECC, DACVIM
 (cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Holliday VH

REFERRING VET

Dr. Gordon

INVOICE

11133

DATE

1/16/2026

PRESENTING CLINICAL SIGNS

On January 15th 2026 : Presenting on emergency for acute collapse. Occurred about 15 minutes ago, crying at home like about to vomit but not sure he did. Was doing it for a while Alex on call, went down to check on him, had defecated and urinated and essentially collapsed, drooling as well, tongue was out. E/d normally prior, normal u/bm. Maybe a bit lower energy last few days, changing where he's been resting but also moved recently. Don't think got into anything BAR, stressed, crying HR 130bpm RR 120brpm T 36.9C CRT <2s MM pk, tacky Euhydrated BCS 7/9, MCS 2/3 Eyes: Clear. No discharge or erythema bilaterally. Ears: Clean with no discharge or erythema bilaterally. Nose: Clear, moist without discharge. Throat: No inducible cough upon tracheal palpation; no palpable masses. Current Medications 10 mg Furosemide every 8 hours - started January 15th 2026, Emavert and pimobendan 1.25mg PO on January 15th.

Abnormal PE/Chem/CBC/UA Results: Primary Question to Be Answered in This Exam Ddx cardiomyopathy, HCM vs other and what medications would be appropriate to prescribe?

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	6.56 kg	170	0.76	1.76	0.74	23%	49%
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.55	1.61	1.77		1.8	0.8	NM
Adapted from June Boon, Veterinary Echocardiography, 1998							
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

Cardiac Presentation

The left atrium is upper limits to mildly enlarged. There are no distinct left atrial thrombi/clots or spontaneous echo contrast appreciated. The left ventricle is normal in dimension, with severe concentric hypertrophy, and no evidence of restriction. Left ventricular systolic function is normal, with adequate contractility based on fractional shortening and systolic left ventricular dimensions. The right atrium and ventricle are subjectively normal in dimension and systolic function. There is evidence of systolic anterior motion of the mitral valve with trace mitral regurgitation. The tricuspid valve leaflets presented normal linear structure, extension in systole, and union in diastole without regurgitation. The left ventricular outflow tract demonstrated turbulent flow and subjective structural valvular integrity. The visible aorta is unremarkable. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and appropriate diameter and distensibility. There is no evidence



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of semilunar valve insufficiency or pulmonary hypertension documented. There is no pericardial, pleural, or free peritoneal fluid noted.

ULTRASONOGRAPHIC FINDINGS

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- These findings identify LV hypertrophy in the setting of an outflow tract obstruction, consistent with hypertrophic obstructive cardiomyopathy (HOCM). The presence of borderline left atrial dilation on diuretics makes CHF a reasonable explanation for any historic signs.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Continued therapy for CHF is indicated, and should include Lasix (2mg/kg q24 to BID) and enalapril (0.5mg/kg q24, assuming normal blood pressure and kidney function). There are significant dilemmas regarding additional therapy, as atenolol is often used in the setting of HOCM, and Vetmedin is indicated in patients with heart failure. Unfortunately, there are contraindications to the atenolol (heart failure) and the pimobendan carries a labeled contraindication in the setting of LV hypertrophy and outflow tract obstruction. Given the recent episode, a transition to just the furosemide and enalapril will be recommended unless clinical signs change. ECG should be considered as a dysrhythmia is another possible explanation of the episode. A repeat echocardiogram, blood pressure, chemistry panel, and thoracic radiographs are indicated in another 3-6 months, or sooner if the condition worsens.

Anesthesia considerations:

Anesthesia should be avoided until signs of congestion have resolved. If anesthesia is necessary, then alpha-2 agonists, ketamine, high dose acepromazine, and Telazol should be avoided. If an ACE inhibitor (enalapril, benazepril) or spironolactone is being given, it should not be administered on the morning of general anesthesia. Other cardiac medications should be administered per the normal dosing schedule. Anesthetic IV fluid use should be limited to < 3 ml/kg/hr and, if IV fluid therapy is administered during the procedure, a 1 mg/kg dose of IM Lasix should be administered when the patient is awake and standing in recovery. A shorter anesthetic duration will reduce the risk of complications. Pre-oxygenation is advised. Premedication with an opioid (i.e., butorphanol, hydromorphone, oxymorphone) with or without a benzodiazepine is generally the safest protocol. An induction agent such as Propofol, alfaxalone, or diazepam/etomidate can be used to effect. Maintenance of anesthesia with isoflurane or sevoflurane is reasonable.

Diet:

A high-quality food from Hills, Royal Canin, Science Diet, Eukanuba, Iams, or Purina that is highly palatable with adequate protein and calories for maintaining optimal body condition with mild dietary sodium restriction (<100 mg/100 kcal) is recommended. Consider omega-3 fatty acid supplementation.

Activity:

Avoid strenuous activity.

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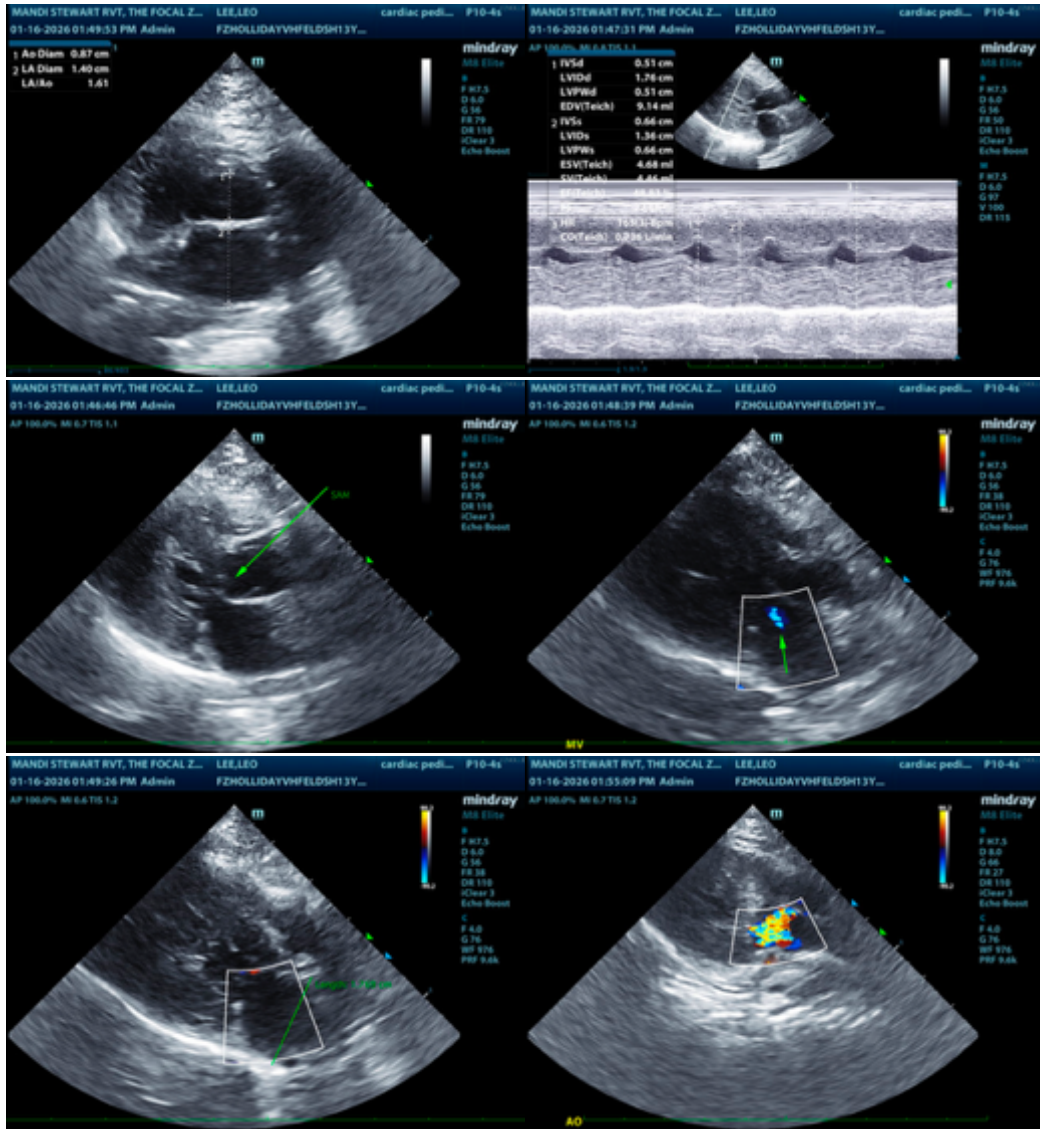
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Bradley Harris, DVM, DACVECC, DACVIM (cardiology)

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