

IMAGING PERFORMED BY

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**PATIENT**

Sunshine Canan

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

3.13.07

**WEIGHT**

8.5lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Timonium Animal  
Hospital

**REFERRING VET**

Dr. Mcintyre

**INVOICE**

25268

**DATE**

7.12.22

**PRESENTING CLINICAL SIGNS**

History: History of hyperthyroidism, well controlled. Recent history of being laterally recumbent, vocalizing, mydriasis. Resolved over a few minutes, now WNL.  
 -Pertinent abnormal PE/Chem/CBC/UA Results: CBC: HCT 23.9, non-regenerative. Chem: Alb 2.5, Pro BNP 330, T4 1.2.  
 -Current medications: Felimazole 3.75mg BID, Buprenex 0.3mg/mL 0.25mL.  
 -Sedation used: Not required to complete full diagnostic ultrasound.  
 -Pertinent previous ultrasound results: No previous.  
 -STAT: Not requested  
 -Imaging performed by: Andi Parkinson, BS, RDMS.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is highly irregular with mild to moderate septal hypertrophy and significant thinning of the posterior wall. There is a mildly hyperechoic endocardium consistent with fibrosis. The LV chamber is mildly increased. The papillary muscles are remodeled. Systolic function is depressed, with an akinetic free wall. The left atrium is mildly enlarged. The mitral valve is normal. No MR. The right atrium appears normal. The right ventricle appears normal. No TR. Blood flow through the LVOT and RVOT is normal. No pleural and pericardial effusion are seen. No obvious cardiac tumors.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LWVd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	3.9	NM	0.68	1.7	0.35	24	51
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>	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	1.4	0.98	0.73	NM	

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 cardiomyopathy (HCM) with an infarcted free wall. The diagnosis is based upon moderate septal thickening contrasting significant free wall thinning with an akinetic appearance. Regardless, the left atrium is only mildly enlarged indicating relatively low risk for complication at this time. A history of hyperthyroidism is unlikely to be related, given a reportedly well controlled issue. A baseline blood pressure is certainly recommended. No additional structural issues are identified.

These findings do not necessarily explain a recent episode. An intermittent arrhythmia is noted throughout the study, which maybe related however, and a baseline ECG is also recommended. Anemia is also noted, and may suggest a systemic pathology. Full evaluation is advised.

Given the appearance of the LV with overall systolic dysfunction, it may be reasonable to institute cardiac supportive Pimobendan in this case (off label use). That being said, with only mild left atrial enlargement there is relatively low risk for complication at this time. If this cat is difficult to medicate, an alternative would be to monitor closely for progression in the next 6 months. No additional medications are indicated at this time.

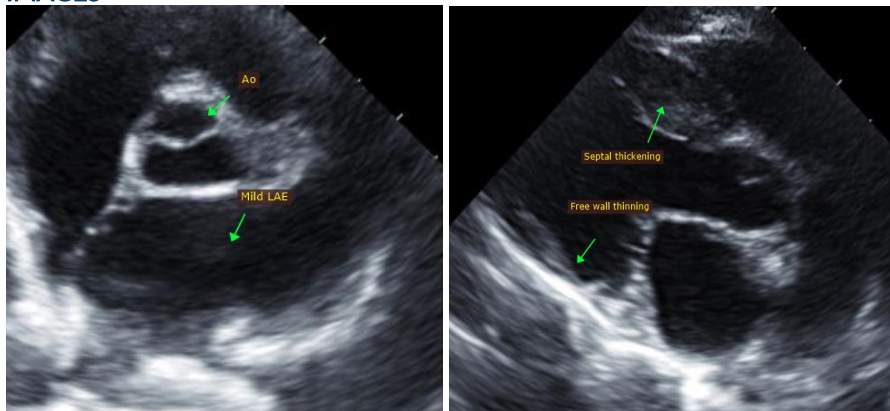
Pending ECG evaluation, anesthetic risk is considered mildly elevated, with risk for fluid overload, spontaneous CHF, hypotension, etc. Judicious IV fluid rates are advised to avoid fluid overload. Drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, acepromazine and Dexdomitor. A reasonable protocol would include opioid/benzodiazepine pre-medication, propofol induction, isoflurane gas.

## PLAN

Consider Pimobendan as discussed: 1.25mg PO q12h. Baseline BP and ECG are strongly recommended. Full systemic evaluation.

Recommend recheck echocardiogram in 6 months to assess for progression and need for medications, sooner if clinical signs 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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