

**PATIENT**

Callie Cran-Diamond

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Intact

**AGE**

10 years

**WEIGHT**

10.5lbs

**INTERPRETED BY**

Maggie Machen  
 Lamy, DVM, DACVIM  
 (Cardiology)

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

VCA Mckenzie  
 Animal Hospital

**REFERRING VET**

Dr. Arpaia

**INVOICE**

30504

**DATE**

4/28/23

**PRESENTING CLINICAL SIGNS**

History: Incidental systolic murmur grade 2/6 on physical exam. Diabetic - well managed with Prozinc insulin 1 unit BID. Hyperthyroidism - managed with 2.5mg methimazole once daily - recent dose increase to 2.5mg am and 1.25mg. Prozinc insulin 1 unit BID and methimazole 2.5mg am/1.25mg pm. -Abnormal PE/Chem/CBC/UA Results: CBC - Wnl; Chemistry profile - DM monitoring panel BUN = 43 (14-36) PSL = 30 (8-26); Thyroid hormones - TT4 = 4 (0.8-4.0); Urinalysis - USG 1.039 pH = 7.5 urine chems: 1+pro,2+ob urine sedi: rbc's 11-20/hpf MA: 0.7 (<2.5); fructosamine - Fructosamine = 256.

**RADIOGRAPHIC FINDINGS** \*NOTE: Images submitted for supplemental cardiac information only. Normal cardiac silhouette. No obvious evidence of CHF.

**ELECTROCARDIOGRAPHIC FINDINGS** \*Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 50mm/s, 20mm/mV. The average heart rate is 220bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. No ectopic beats, pauses or dysrhythmias observed.

ECG diagnosis: Normal sinus tachycardia.

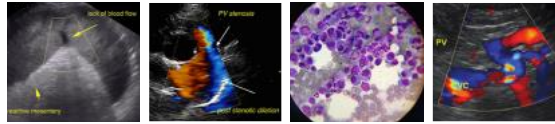
**ECHOCARDIOGRAM FINDINGS**

The left ventricular walls are normal in dimension. No LV dilation is present with borderline systolic dysfunction. The LV wall thickness is normal. There is a mildly hyperechoic endocardium consistent with fibrosis. Mild papillary muscle remodeling. The left atrium is normal in dimension. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. Trace/mild TR. Normal velocity. Blood flow through both the LVOT and RVOT is normal in velocity. No evidence of cardiac tumors or metastatic lesions on this scan. No pleural or pericardial effusion.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWVd (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	4.8	230	0.46	1.3	0.39	32	60
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	1.5	1.3	1.1		0.6	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.



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overtly normal cardiac structure and function with no evidence of significant LVH or atrial dilation. The finding of borderline systolic dysfunction and LV remodeling may be indicative of early disease or represent a normal age-related variant. Serial echocardiography will be necessary to determine progression going forward. No cause for the murmur is identified, making it likely physiologic in origin. The ECG is unremarkable with a normal sinus tachycardia.

Given today's findings, no medications are indicated. A baseline BP is strongly recommended.

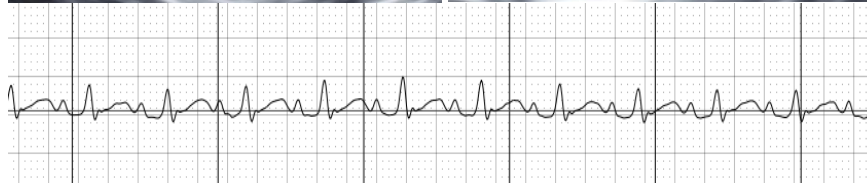
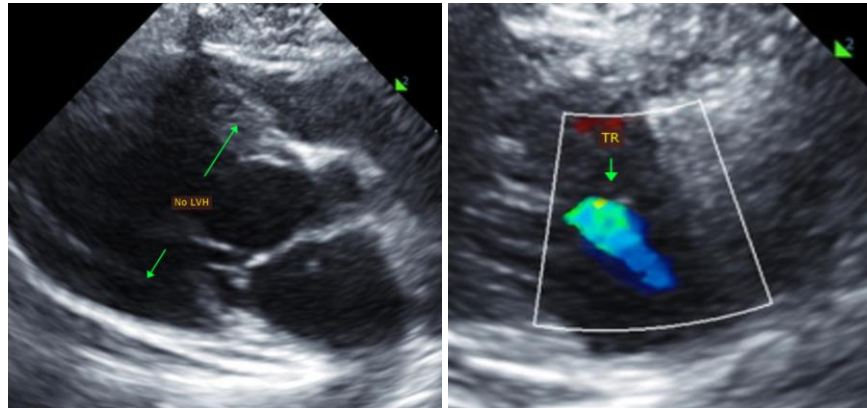
Prognosis is guarded prior to assessing for progression.

No cardiac contraindication for general anesthesia. Should fluid or steroid therapy be indicated in the future, any cat should be monitored for intolerance (changes in RR/RE).

Monitor at home for signs of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes).

Recommend recheck echocardiogram in 1 year to assess for any progressive issues or development of disease the pre-existing murmur may mask.

**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**  
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