



PATIENT

Loki Loberstein

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

2.9.11

WEIGHT

11lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

North Fork Veterinary
Clinic

REFERRING VET

Dr. Marrs

INVOICE

46535

DATE

1/21/26

PRESENTING CLINICAL SIGNS

History: Diagnosed with CKD in 10/2024. Seen on 1/5/26 for intermittent vomiting, decreased appetite and mild weight loss. New grade 1/6 heart murmur auscultated on exam; parasternal. Asymptomatic. Telmisartan started last week for hypertension (started at 5 mg SID), Mirtazapine (transdermal, 2 mg SID prn), Cerenia 8 mg SID prn, Gabapentin 100 mg PO prior to ultrasound. Pt also receiving 100 ml LRS twice weekly. BP: 170mmHg.
-Abnormal PE/Chem/CBC/UA Results: Mild azotemia (creat 2.3, BUN 40, SDMA 20); USG 1.015, negative protein. Spec fPL WNL, T4 WNL, elevated ProBNP.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 180bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. VPCs are noted throughout; singles only with periods of trigeminy. No APCs, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with intermittent ventricular trigeminy.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal in dimension with regions of irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled. The mitral valve is normal with mild to moderate central MR. Normal velocity. The left atrium is mildly dilated and bulbous in appearance. No obvious smoke. The right atrium is normal. Tricuspid valve is normal with no TR. The right ventricle appears normal. Blood flow through both the LVOT and RVOT is normal in velocity. No pericardial effusion seen. No pleural effusion. No obvious cardiac tumors. Premature beats noted throughout the study.

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	5.0	180	0.50	1.2	0.48	58	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	1.5	1.2	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 finding of mild left atrial enlargement in the face of normal LV dimensions is most consistent with an Unclassified Cardiomyopathy (UCM); however, some prior infectious or inflammatory issues cannot be ruled out. There is also mild to moderate MR, which may be contributing. Mild



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left atrial dilation is present, which would suggest risk for progression going forward. No additional structural issues are identified.

Additionally, there is an arrhythmia present on the ECG with isolated VPCs identified and periods of trigeminy. The abnormal beats are singles only; no couplets or triplets are appreciated. What is seen here in cat with mild disease does not warrant anti-arrhythmic therapy; however, monitoring is advised. The patient has systemic issues that may be the simple explanation.

Given what is seen here, no indication for medications at this time. Follow up is certainly advised, as any progressive left atrial enlargement will warrant medical management.

The long-term prognosis given the totality of the findings is guarded; however, there is a highly variable rate of progression in cats with subclinical disease. There will always remain risk for progression to CHF and development of blood clots and/or sudden death in the future. Monitoring is certainly advised, particularly should any respiratory signs, collapse or significant lethargy be noted in the future.

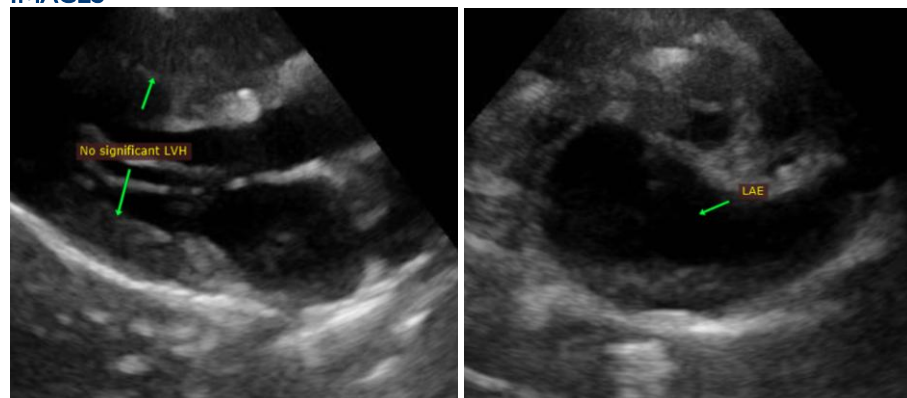
Anesthetic risk is considered moderately elevated due to a combination of mild LAE and VPCs. Drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, alpha 2 agonists. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance. Monitor ECG intra and post-operatively, with careful intervention if ventricular arrhythmias are sustained (i.e., sustained VT) and lead to hemodynamic compromise.

PLAN

Full systemic evaluation is recommended as discussed.

A recheck echocardiogram and ECG is recommended in 6 months, sooner if any recurrent episodes occur.

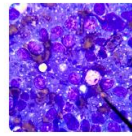
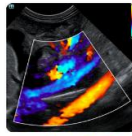
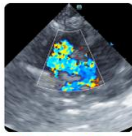
IMAGES



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North Fork Veterinary Services, Inc.
pawsonography@gmail.com
530-786-8340



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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.

SPECIES

Feline

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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Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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