



PATIENT

Twinkie Carreira

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

11 years

WEIGHT

8.75lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary Services

REFERRING VET

Dr. Masloski

INVOICE

22567

DATE

2/15/22

PRESENTING CLINICAL SIGNS

History: Twinkie was noted to have a heart murmur/arrhythmia in November 2020. Also has had hematochezia. Recent thyroid level in July 2021 was within normal range. Needs dental prophylaxis. He has been more vocal lately---vocalizing in the middle of the night. He is also vocal in and out of the cat box. Twinkie is eating well with no C/S/V noted but has always had hematochezia. He has also had a slow but steady decline in activity over the years. On auscultation: NSR, grade III/VI murmur noted best on sternum, PSS, lung fields clear, compressible thorax. BP: 130mmHg x 5.

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; 25mm/s, 20mm/mV. The average heart rate is 188bpm with a largely regular sinus rhythm. P for every QRS complex and vice versa. P and QRS morphologies are positive. Isolated VPCs throughout; singles only and monomorphic. No supraventricular premature beats, pauses or other dysrhythmias observed. ECG diagnosis: Normal sinus rhythm with isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with adequate myocardial function. The LV wall thicknesses are irregular with regions of thinning. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. Fibrous bands across the mid-LV. The papillary muscles are mildly remodeled and hyperechoic.

Left atrium: The left atrium is normal in dimension. No obvious spontaneous contrast or thrombi seen.

Mitral valve: The mitral valve is normal in structure and mobility with no mitral regurgitation. No obvious systolic anterior motion is seen.

Aortic valve/aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

Right atrium: The right atrium is normal in dimension.

Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.

Pulmonic valve/pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.3
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.38
LVID diastole (cm)	1.5
PW thickness (cm)	0.35
LVID systole (cm)	0.7
FS (%)	53

Doppler Measurements

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA



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INTERPRETATION OF THE FINDINGS

The primary abnormality identified is a highly remodeled LV with fibrous bands. This may be a normal variant; however, follow up is certainly advised as this may reflect early restrictive disease (RCM). The LA is normal indicating low risk for complication at this time. Serial echocardiography will be necessary to determine progression. No cause for the murmur is identified in this study, making it likely physiologic in origin (i.e., secondary to tachycardia, volume changes, etc.).

The ECG does confirm isolated ventricular premature contractions (VPCs) as the cause of the arrhythmia. VPCs can certainly be cardiac in origin with significant structural disease; however, that is not clearly identified here. Extra-cardiac causes should be considered, including systemic disease, neoplasia, etc. Full systemic work-up is advised if not recently performed. No obvious indication for anti-arrhythmic therapy at this time. The frequency of VPCs in this patient is concerning, however use of anti-arrhythmic must be approached cautiously in cats. Given that there are only single abnormal beats identified, I would not recommend treatment at this time. Close monitoring for any associated clinical signs including collapse or significant lethargy is advised with immediate re-evaluation in these instances. Prognosis is guarded, as in any arrhythmic patient sudden death is certainly a possibility even on medications.

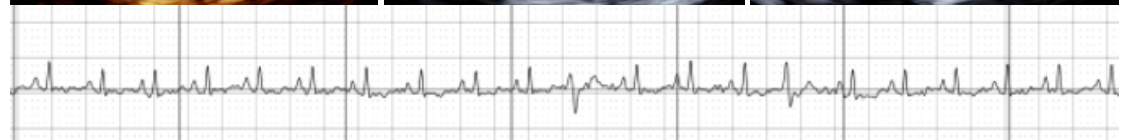
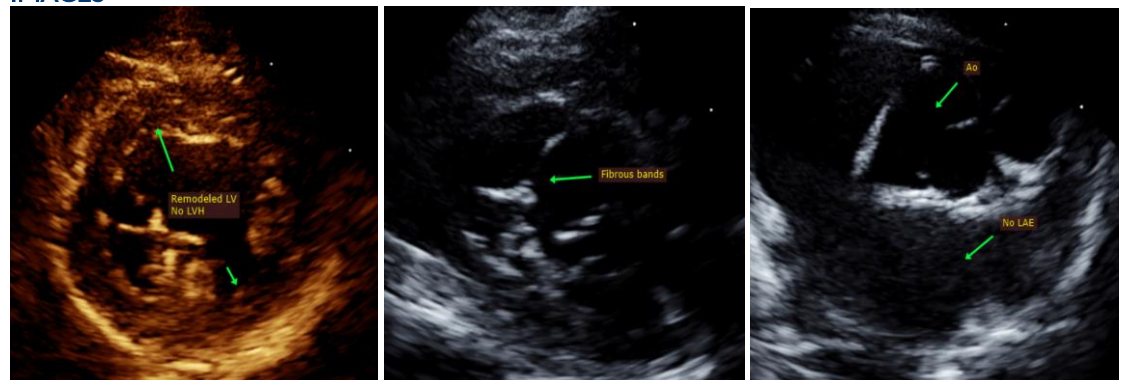
RECOMMENDATIONS

- Given these findings, no medications are indicated.
- Full systemic evaluation is advised.
- Elective anesthesia is not advised prior to further evaluation and monitoring.
- Monitor for any signs of sustained arrhythmias including collapse or significant lethargy.
- Monitor for any change in breathing rate or effort, or signs of a blood clot event.

PLAN

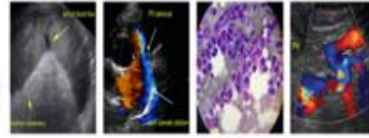
- Recheck echocardiogram and ECG are recommended in 6 months to assess for any abnormalities not identified on this exam.

IMAGES





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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.

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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.

BREED
DSH

Maggie Machen Lamy, DVM
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info@sonopath.com

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Male Neutered

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)

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