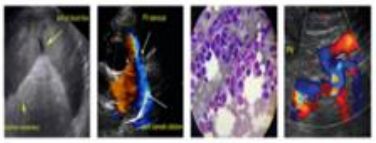
Mass Veterinary Services



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Shells McCarthy

SPECIES
Feline

BREED
DLH

SEX
Male Neutered

AGE
10 years

WEIGHT
13.3lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
29461

DATE
3/8/23

PRESENTING CLINICAL SIGNS

History: Shells was noted to have an arrhythmia in November 2021 and again in November 2022. A CBC, chem profile and thyroid level was normal. He is in need of dental prophy. He is eating well with normal activity. On exam: No arrhythmia noted (purring), grade II/VI parasternal murmur, no murmurs noted, PSS, lung fields clear, compressible thorax, mm pink, moist, CRT<2. BP could not be obtained (extremely fractious). *Sedated with alfaxalone.

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 200bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P and QRS morphologies are positive. No ectopic beats, pauses or dysrhythmias observed.
ECG diagnosis: Normal sinus tachycardia.

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 contrasting regions of borderline thickening. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are mildly remodeled.
Left atrium: The left atrium is borderline normal in dimension. No obvious spontaneous contrast or thrombi seen.
Mitral valve: Mitral inflows suggest a restrictive filling pattern. 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 trace 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)	1.4
LA:Ao (Swe)	1.3
IVS thickness (cm)	0.48
LVID diastole (cm)	1.55
PW thickness (cm)	0.55
LVID systole (cm)	0.5
FS (%)	66

Doppler Measurements

PV Vmax (m/s)	0.88
AoV Vmax (m/s)	1.5
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 and irregular LV morphology with borderline LA dilation. This may be a normal variant; however, follow up is certainly advised as this may reflect early restrictive disease (RCM), particular given the mitral inflow pattern. The LA is borderline 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 was recorded for several minutes without an obvious dysrhythmias observed. This does match what was heard on exam, potentially an extended tracing and/or in hospital monitoring may be warranted.

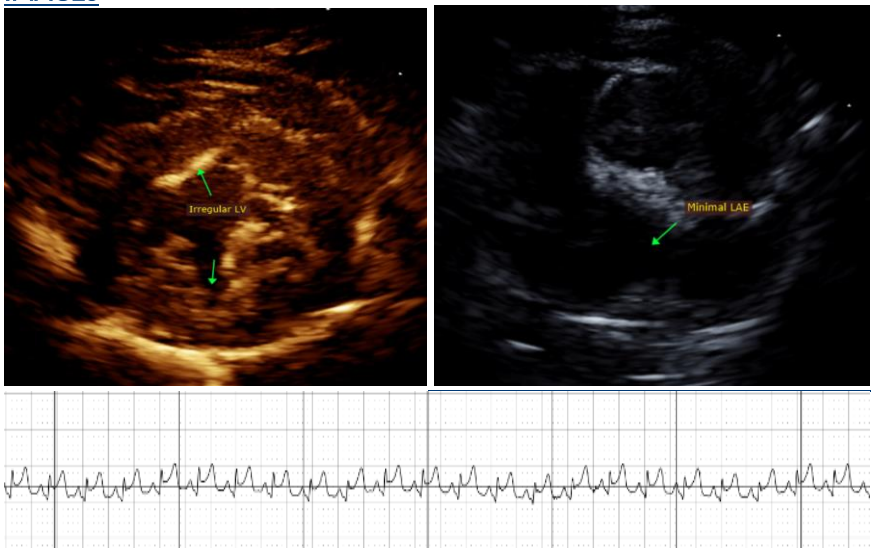
RECOMMENDATIONS

- Given these findings, no medications are indicated.
- The risk for general anesthesia is low, however heart rate stimulating drugs such as atropine, glycopyrrolate, etc. should be avoided unless medically necessary. With this degree of LV remodeling there may be an elevated risk for fluid overload in this patient and judicious IV fluid use is recommended.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.

PLAN

- Recommend recheck echocardiogram in 6-12 months to reassess murmur origin and screen for progressive LA dilation.

IMAGES



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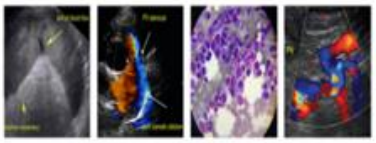

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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