

PATIENT

Eli Valvo

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

10 years

WEIGHT

11.13lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary
Services

REFERRING VET

Dr. Masloski

PRESENTING CLINICAL SIGNS

History: Recheck echo. History mitral valve dysplasia with marked LV hypertrophy. History seizures. Current presentation: Eli had a mild seizure in April. He is no longer taking the zonisamide due to the decreased frequency and severity of his seizure activity. His resting heart rate at home is generally 122-123. He is doing well otherwise and is a bit more playful now that he is off the zonisamide. On exam: NSR, grade II/VI murmur with PMI left apical area, PSS, lung fields clear, compressible thorax. BP: 140 mmHg x 5. Current medications: 1) Benazepril 5mg 1/4 tab twice a day 2) Atenolol 25mg 1/2 tab daily 3) Plavix 75mg 1/4 tab daily 4) Lasix 12.5mg 1/2 tab twice a day 5) Zonisamide 50mg 1 capsule daily---no longer taking *Sedated with propofol for study.
-Pertinent previous echo findings (11/10/21 Maggie Machen Lamy, DVM, DACVIM-Cardiology): LA 1.7 cm; LA:Ao 1.5; IVS 0.80 cm; PW 0.95 cm; moderate LAE; marked LVH with regional variability; dysplastic MV; LVOT 1.2 m/s.

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 125bpm 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. A single interpolated ventricular beat is identified; instantaneous heart rate 150bpm. No additional premature beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with a single interpolated ventricular beat.

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 a region of apical septal thickening (see below). Marked free wall hypertrophy. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. False tendon. The papillary muscles are significantly hypertrophied and hyperechoic. The endocardium appears mildly remodeled.

Left atrium: The left atrium is severely enlarged with no obvious smoke.

Mitral valve: The anterior leaflet of the mitral valve is elongated and dysplastic with abnormal motion. No obvious stenosis. The tip of the mitral valve is visible in the LVOT during systole. Mild eccentric mitral regurgitation is noted.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Aortic outflow velocities are normal. 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.

Pulmonary valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Mildly elevated RVOT velocity; laminar flow.

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

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2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	2.0
LA:Ao (Swe)	1.8
IVS thickness (cm)	0.42
LVID diastole (cm)	1.5
PW thickness (cm)	0.94
LVID systole (cm)	0.52
FS (%)	66

Doppler Measurements

PV Vmax (m/s)	0.98
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Compared to the prior study, the most concerning finding is progressive left atrial dilation. No obvious smoke is identified; however, the risk is elevated for blood clot formation or recurrent spontaneous CHF is certainly elevated. The LV morphology is highly irregular with regions of thinning, although this was noted previously. No additional structural issues are identified.

The ECG does show a single ventricular beat. These were also noted during the study, although not captured on the ECG. These are not surprising given a patient with severe structural disease and remodeling. The coupling interval is not particularly premature, making this of little clinical concern at this time. No treatment is warranted based upon what is seen here. Monitor for signs of progressive arrhythmias at home, including syncope or acute lethargy.

Given these findings, no change to the medications is indicated at this time. Long term prognosis remains guarded given the age of the patient and highly variable nature of asymptomatic feline heart disease. Many cats will remain asymptomatic until mid-life or beyond, while others develop CHF within the first years. Close monitoring for progression of LA dilation in the future will help determine long term prognosis.

RECOMMENDATIONS

- Continue all medications as prescribed.
- Monitor renal values and BP every 3-4 months lifelong
- Elective anesthesia is not advised.
- 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 assess for progression, sooner if clinical signs arise in the interim.



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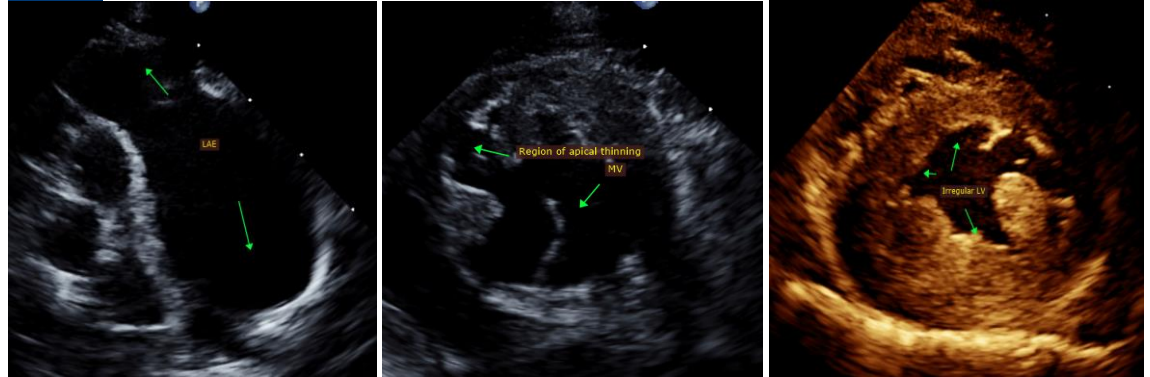
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IMAGES



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
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)