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Pet Animal Ultrasound Service
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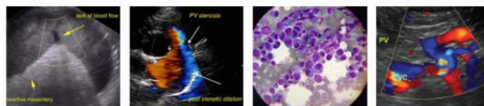


SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Zim Martelle

SPECIES
Feline

BREED
DLH

SEX
Female Spayed

AGE
13 years

WEIGHT
9.4lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Compassionate Care Veterinary Clinic

REFERRING VET
Dr. Louissaint

INVOICE
21900

DATE
11/5/21

PRESENTING CLINICAL SIGNS

History: Recheck echo. History mild, focal HCM. History hyperthyroidism. Currently, stiffened hindlimb gait and generalized decreased muscling. Grade III/VI systolic murmur. BP: 190, 200, 205mmHg.
-Current medications: Methimazole 5 mg AM and 2.5 mg PM.
-Pertinent previous echo findings (8/17/20 MML): LA 1.11 cm; LA:Ao 1.05; IVS 0.64 cm; PW 0.30 cm; normal LA size, focal ventricular septal bulge, LVOT 0.96 m/s.

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 highly asymmetrical with a normal free wall and severely thickened septum. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles appear mildly hypertrophied 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. Severe systolic anterior motion is seen with trace mitral regurgitation.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Severely elevated aortic outflow velocity and dynamic in profile. 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 mild 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.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 200bpm.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.2
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.8
LVID diastole (cm)	1.2
PW thickness (cm)	0.44
LVID systole (cm)	0.45
FS (%)	62

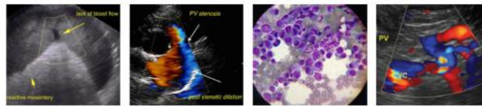
Doppler Measurements

PV Vmax (m/s)	0.5
AoV Vmax (m/s)	4.3
MR Vmax (m/s)	NM
TR Vmax (m/s)	NM
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Unfortunately, this study shows evidence of significant progression. The LV wall thickness is significantly increased comparatively with an asymmetric appearance. Additionally, there is severe systolic anterior motion identified which was not previously documented. This may be secondary to the hypertrophy rather than a primary cause given the comparison of the studies. The LA remains normal indicating low risk for complication at this time.

Given these findings, Atenolol is recommended as below. No additional medications are clearly indicated prior to atrial dilation.



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Prognosis is guarded, given the highly variable outcomes with subclinical feline cardiomyopathy.

The reported blood pressure is elevated and should be reassessed for accuracy/persistence. While this is not expected to explain asymmetric LV changes, true pathologic hypertension will certainly not benefit the situation with primary disease. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.

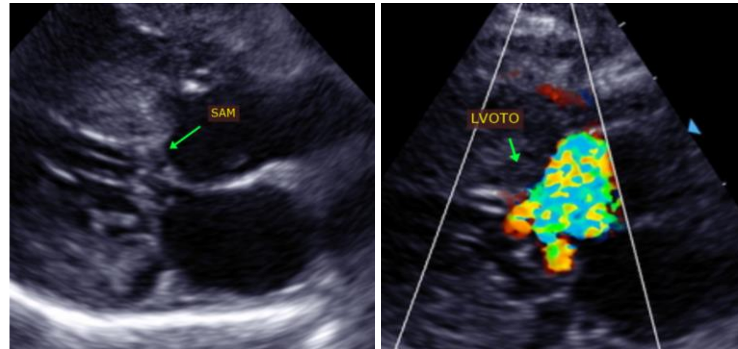
RECOMMENDATIONS

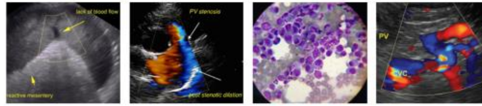
- Institute Atenolol 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Reassess BP as discussed and treat if indicated.
- Monitor BP/T4 every 6 months.
- Risk for general anesthesia remains low; however, adequate heart rate and BP control is advised prior to proceeding.
- 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 months to continue to screen for progression.

IMAGES





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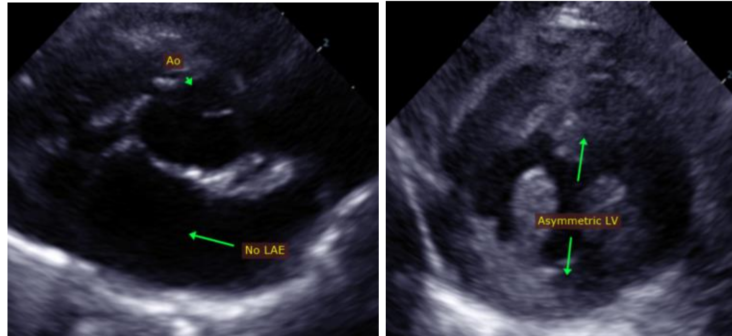

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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