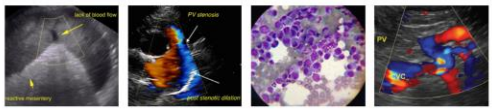
PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



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

PATIENT
Toto Lajoie

SPECIES
Feline

BREED
DLH

SEX
Male Neutered

AGE
4 years

WEIGHT
15.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Wignall Animal Hospital

REFERRING VET
Dr. Detelich

INVOICE
27749

DATE
12/1/22

PRESENTING CLINICAL SIGNS

History: Grade III/VI heart murmur; no clinical signs. BP: 147, 148, 149mmHg.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV chamber is decreased; adequate myocardial function. The LV wall thicknesses are markedly increased. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are severely hypertrophied and hyperechoic. False tendon. The endocardium appears mildly remodeled.
Left atrium: The left atrium is normal. No smoke or thrombi seen.
Mitral valve: The anterior leaflet of the mitral valve appears mildly thickened. Systolic anterior motion is seen on 2D imaging. Moderate eccentric MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Increased aortic outflow velocity with a fixed 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 no tricuspid regurgitation.
Pulmonary valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Mildly elevated RVOT velocity.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 250bpm.

2-Dimensional Measurements

Ao diam (cm)	0.9
LA diam (cm)	1.1
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.81
LVID diastole (cm)	0.91
PW thickness (cm)	0.98
LVID systole (cm)	0.50
FS (%)	45

Doppler Measurements

PV Vmax (m/s)	1.8
AoV Vmax (m/s)	3.5
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis and cause of the murmur is hypertrophic obstructive cardiomyopathy (HOCM). This indicates some degree of LV thickening (marked in this case) with a dynamic LVOT obstruction (SAM). The MV is mildly thickened, which may suggest a valvular component. Regardless, there is no left atrial dilation, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is currently low. That being said, marked LV hypertrophy in a young patient is highly concerning going forward. No additional issues are identified.

While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. This is certainly recommended in this case given the degree of hypertrophy and marked LVOT obstruction. Prognosis is guarded given the severity of disease in this relatively young cat. Patient will always be risk for progression to CHF, development of blood clots and/or sudden death in the future.

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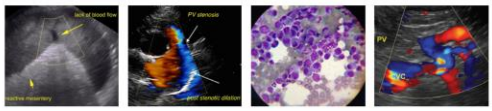

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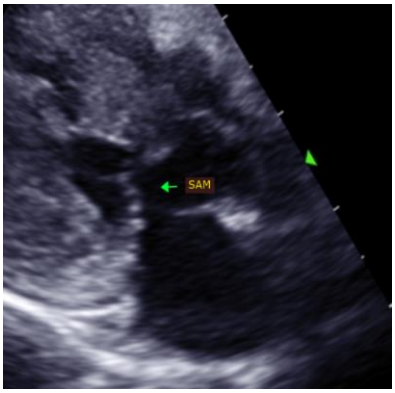
RECOMMENDATIONS

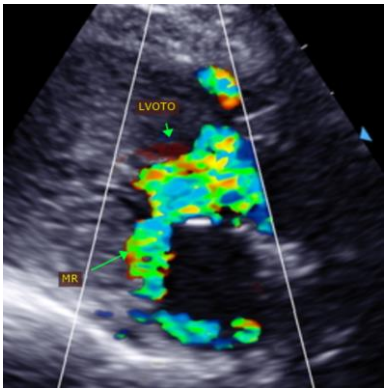
- Administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Screening BP/T4 if not recently performed.
- Anesthetic risk is considered elevated, with high risk for fluid overload, spontaneous CHF, hypotension, etc. Judicious IV fluid rates are advised to avoid fluid overload. Drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, acepromazine and Dexdomitor.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

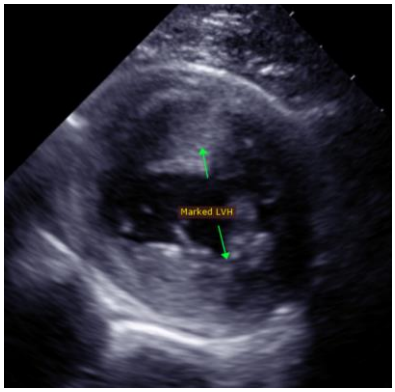
PLAN

- Recommend recheck echocardiogram in 6 months to assess rate of progression, sooner if any issues arise in the interim.

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
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