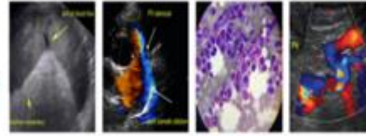
Mass Veterinary Services



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

PATIENT
Jay Cauley

SPECIES
Feline

BREED
DLH

SEX
Male Neutered

AGE
7 years

WEIGHT
11.38lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
23008

DATE
3/9/22

PRESENTING CLINICAL SIGNS

History: Jay is referred to evaluate a murmur noted in February. A thyroid level at that time was normal. Good appetite and normal activity. He is an exclusively indoor feline. On exam: NSR, grade III/VI parasternal murmur, PSS, lung fields clear, compressible thorax. BP: 120mmHG x 4. No medications. *No sedation for study.

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 largely normal with focal septal thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles appear hyperechoic with mild hypertrophy. The endocardium appears mildly remodeled.
Left atrium: The left atrium is mildly dilated. No obvious spontaneous contrast or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. Systolic anterior motion is seen with mild MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly increased aortic outflow velocity with a dynamic 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.
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 188bpm.

2-Dimensional Measurements

Ao diam (cm)	1.2
LA diam (cm)	1.47
LA:Ao (Swe)	1.3
IVS thickness (cm)	0.69
LVID diastole (cm)	1.5
PW thickness (cm)	0.53
LVID systole (cm)	0.72
FS (%)	50

Doppler Measurements

PV Vmax (m/s)	1.1
AoV Vmax (m/s)	1.96
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy (focal and mild in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. There is mild left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event, while currently low, may be elevated in the future. It is unusual to see mild LA dilation in the absence of significant hypertrophy, which may suggest an unclassified component. Going forward a screening BP and T4 are recommended every 6 months, as both can exacerbate disease.

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. Given the degree of obstruction and mild LA dilation, recommend initiate at this time as below. If

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there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months.

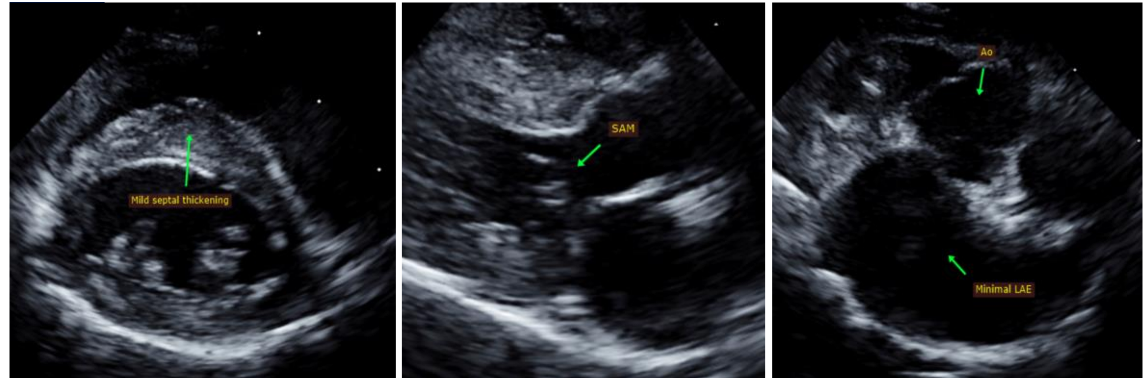
RECOMMENDATIONS

- Administer titrating dose of atenolol if able: 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.
- Monitor BP/T4 q6mo.
- Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.
- Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

PLAN

- Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

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)