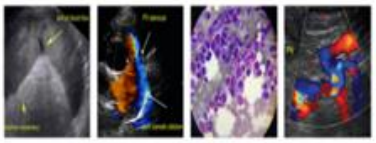
Mass Veterinary Services



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

PATIENT
Jack Goldman

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
8 years

WEIGHT
13.25lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
30344

DATE
4/19/23

PRESENTING CLINICAL SIGNS

History: Recheck echo. History HCM made on prior echo (1/20/23). Doing well at home. Good appetite and normal activity level. Grade lll/Vl systolic murmur, lung fields clear. Current medications: 1) Atenolol 6.25mg/ml 1 ml daily 2) Plavix/clopidogrel 18.75mg/ml 1 ml daily *No sedation for study.
-Pertinent previous echo findings: LA 1.7 cm; LA:Ao 1.9, IVS 0.80 cm; PW 0.70 cm, mild-moderate LAE, marked LVH, moderate MR, mild TR.

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 asymmetric with a mild hypertrophy overall. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hyperechoic. The endocardium appears mildly remodeled.
Left atrium: The left atrium is mildly dilated. No obvious smoke seen.
Mitral valve: The anterior leaflet of the mitral valve appears normal. Systolic anterior motion is seen on 2D and color flow imaging. No obvious MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Significantly 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 trace tricuspid regurgitation.
Pulmonary 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)	1.0
LA diam (cm)	1.5
LA:Ao (Swe)	1.5
IVS thickness (cm)	0.61
LVID diastole (cm)	1.23
PW thickness (cm)	0.65
LVID systole (cm)	0.7
FS (%)	43

Doppler Measurements

PV Vmax (m/s)	0.7
AoV Vmax (m/s)	5.4
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Hypertrophic obstructive cardiomyopathy persists, as was previously documented. This indicates some degree of LV hypertrophy (mild in this case) with an LVOTO. A screening BP and T4 are recommended as contributing factors. Mild LA dilation is present, indicating the risk for imminent complication is relatively low however risk for progression may be elevated. Patient will always be at risk for development of spontaneous CHF and/or a thrombotic event as the disease progresses. No additional issues are identified.

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Compared to what is available from the prior study, findings do appear improved. This may reflect some improvement on Atenolol, as this can be seen with this particular disease process; however, this would be surprising given the timeframe (the prior evaluation was only 3 months ago). At least some degree of interobserver variability is also suspected. Regardless, Atenolol should be continued going forward. Use of Plavix with mild LA dilation is debatable; however, given the history reasonable to continue for now.

Long term prognosis is guarded due to LA dilation, however asymptomatic feline heart disease is highly variable in outcome. Many cats will remain asymptomatic until mid-life or beyond, while others develop CHF within the first years. Close monitoring for progressive LA dilation in the future will help determine long term prognosis and dictate need for additional medications.

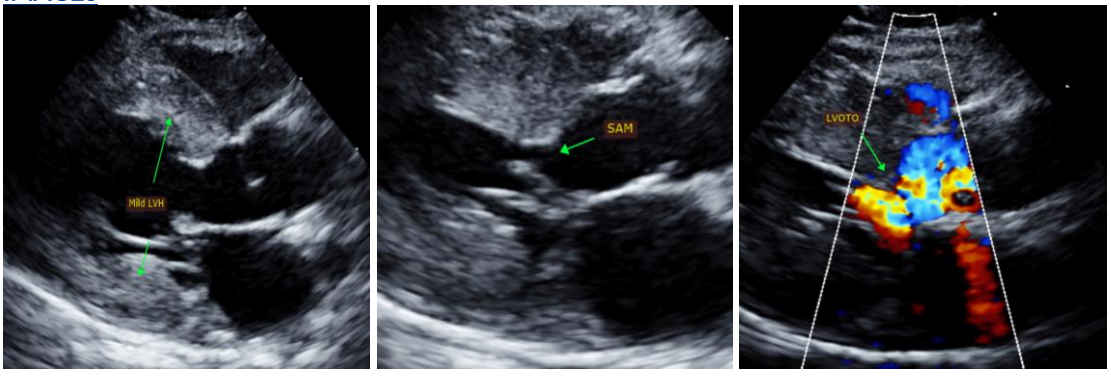
RECOMMENDATIONS

- Continue Atenolol ensuring the stressed heart rate maintains between 140-160bpm.
- Continue Plavix as prescribed.
- Monitor BP and T4 every 6 months going forward.
- 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, and isoflurane maintenance. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.
- 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 six months to assess for progression, sooner if clinical signs arise in the interim.

IMAGES



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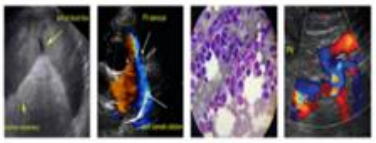

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)