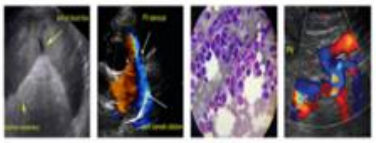
Mass Veterinary Services



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

PATIENT
George Halfway Home Rescue

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
9 years

WEIGHT
13.56lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
27707

DATE
11/30/22

PRESENTING CLINICAL SIGNS

History: George has been living with his foster family for the past 3 months. He was noted to have a heart murmur during a physical exam. He is a bit noisy and nasally when purring. He is eating well and remains active. On exam: Gallop rhythm, grade II/VI parasternal murmur, PSS, lung fields clear, compressible thorax. BP: not obtained. No medications. *Sedated with propofol 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 asymmetric with moderate septal and mild free wall thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic. The endocardium appears mildly remodeled.
Left atrium: The left atrium is mildly dilated. No smoke or thrombi seen.
Mitral valve: The anterior leaflet of the mitral valve appears largely normal. Systolic anterior motion is seen on 2D imaging. Mild eccentric MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly increased aortic outflow velocity with a dynamic profile; suspected to be underestimated due to sedation. 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. Normal 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 150bpm.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.5
LA:Ao (Swe)	1.4
IVS thickness (cm)	0.71
LVID diastole (cm)	1.4
PW thickness (cm)	0.60
LVID systole (cm)	0.5
FS (%)	62

Doppler Measurements

PV Vmax (m/s)	0.76
AoV Vmax (m/s)	2.9
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 (mild to moderate in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. The outflow obstruction is suspected to be underestimated due to heavy sedation. There is mild left atrial dilation, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is currently low. No additional issues are identified. Hyperthyroidism and/or hypertension should be ruled out as contributing factors in this patient.

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. If there is

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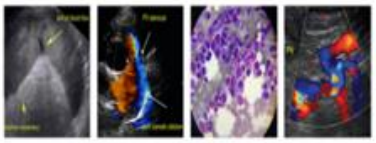

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difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months; however, given LA enlargement I would recommend initiation at this time. Prognosis is guarded due to the significance of the findings.

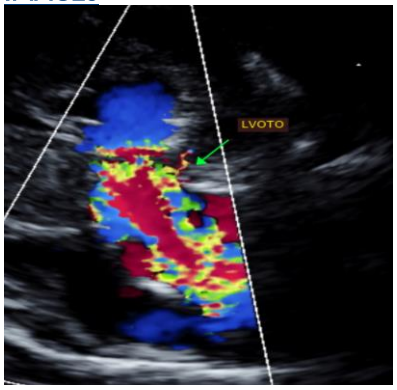
RECOMMENDATIONS

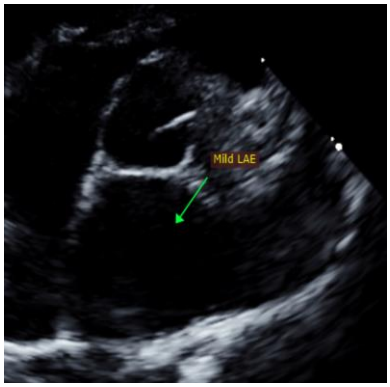
- If able, administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached.
- Screening BP/T4 every 6 months.
- Anesthetic risk is considered mildly elevated, 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).
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

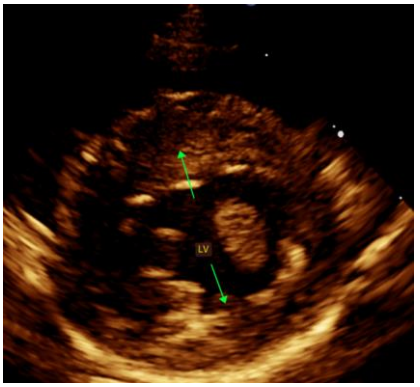
PLAN

- 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
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)