



PATIENT

Mephitis Kaplan

PRESENTING CLINICAL SIGNS

History: New heart murmur I/VI, needs dental, no clinical signs.

SPECIES

Feline

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 significant septal thickening and thinning of the free wall. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic. The endocardium appears mildly remodeled.

BREED

DLH

Left atrium: The left atrium is mildly dilated (LA/AO falsely elevated due to small aortic root). No smoke or thrombi seen.

SEX

Male Neutered

Mitral valve: The anterior leaflet of the mitral valve appears largely normal. Systolic anterior motion is seen on 2D imaging. Trace eccentric MR.

AGE

9 years

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity seen on Spectral doppler; however, an obstruction is suspected on color flow and 2D imaging. No aortic insufficiency.

Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

WEIGHT

12.7lbs

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. The RVOT velocity is elevated on color flow suggesting a dynamic obstruction.

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

Heart rhythm: ECG reveals a sinus rhythm with an average HR of 230bpm.

2-Dimensional Measurements

Ao diam (cm)	0.8
LA diam (cm)	1.5
LA:Ao (Swe)	1.8
IVS thickness (cm)	0.67
LVID diastole (cm)	1.4
PW thickness (cm)	0.41
LVID systole (cm)	0.54
FS (%)	61

Doppler Measurements

PV Vmax (m/s)	1.4
AoV Vmax (m/s)	1.5
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

INTERPRETATION OF THE FINDINGS

The suspected diagnosis and cause of the murmur is hypertrophic obstructive cardiomyopathy (HOCM). This indicates some degree of LV thickening (highly asymmetric with regions of thinning in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. My assumption is the obstruction is developing secondary to significant septal hypertrophy and may worsen going forward. There is mild left atrial dilation, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is relatively low. Additionally, a dynamic RVOT obstruction is noted which is a benign finding that will also contribute to murmur intensity. No additional issues are identified. Hyperthyroidism and/or hypertension should be ruled out as contributing factors in this patient.

HOSPITAL NAME

Wignall Animal
Hospital

REFERRING VET

Dr. Detelich

INVOICE

21647

DATE

10/21/21



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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 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.

SPECIES
 Feline

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 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. 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.).

BREED
 DLH

SEX
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WEIGHT
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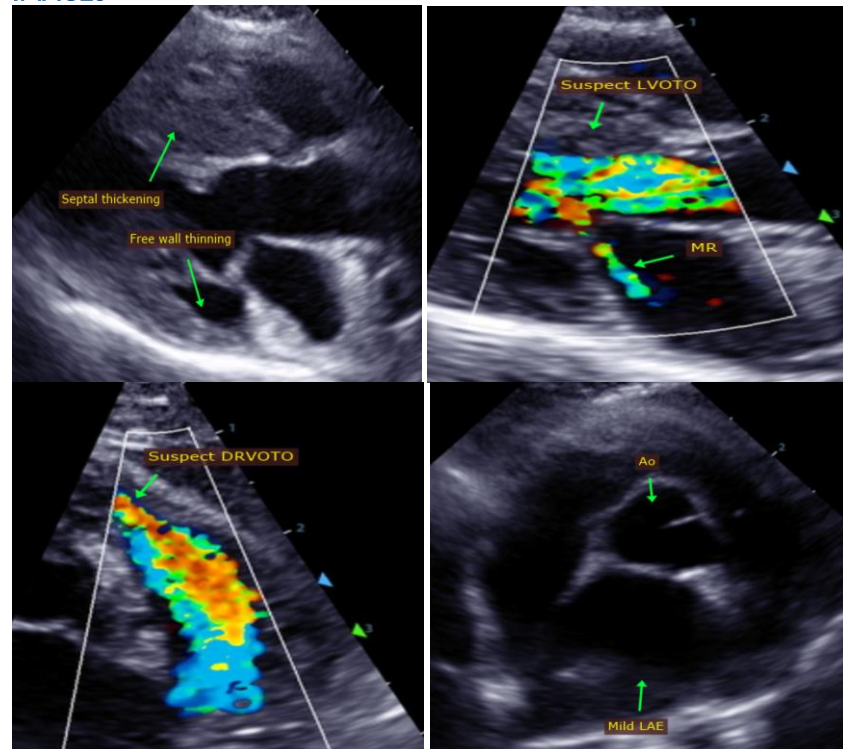
PLAN

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

INTERPRETED BY

Maggie Machen
 Lamy, DVM
 DACVIM (Cardiology)

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.

SPECIES
Feline

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.

BREED
DLH

Maggie Machen Lamy, DVM
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