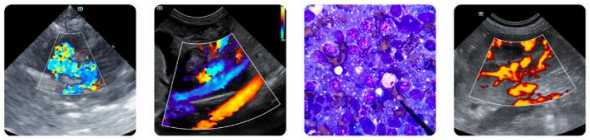

PATIENT
Toby Cecil

SPECIES
Feline

BREED
DMH

SEX
Male Neutered

AGE
11.4 years

WEIGHT
14.6lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Jessie Evoniuk, DVM

HOSPITAL NAME
State Avenue Vet Clinic

REFERRING VET
Dr. Evoniuk

INVOICE
46514

DATE
1/21/26

PRESENTING CLINICAL SIGNS

History: Grade 2-3/6 heart murmur. Turbulent blood flow detected. Vomiting: frequent, food regurgitated whole, often after rapid eating and activity. Coughing present. BP: 174mmHg.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 25mm/s, 5mm/mV. The average heart rate is 188bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. Isolated VPCs are noted throughout; singles only. No APCs, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode and color flow imaging is available. The left ventricular wall is mildly hypertrophied. There is a mildly hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. There is systolic anterior motion (SAM) of the mitral valve present, with an elevated LVOT velocity (not assessed by spectral doppler). There is mild eccentric mitral regurgitation present secondary to SAM. No other obvious valvular regurgitation is present. There is no pericardial effusion noted. No pleural effusion appreciated.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.6		0.61	1.4	0.63	58	90
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) (Abbott)	LA 2D short axis Base view (cm) (Abbott)		LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	NM	1.3	1.3		NM	NM	NM

Note: All measurements based upon multi-modal images and methods. An average value is reported.
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The diagnosis is hypertrophic obstructive cardiomyopathy. This indicates LV hypertrophy (mild to moderate in this case) with a dynamic LVOT obstruction (SAM) and secondary MR. Without adequate use of spectral doppler, the LVOT velocity could not be assessed; however, 2D and color flow are suggestive. Regardless, there is no left atrial dilation, indicating the risk of spontaneous CHF and/or a thrombotic event, while currently low, may be elevated in the future. A screening BP and T4 are recommended every 6 months, as both can exacerbate disease.

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The ECG does show VPC's, which is concerning. VPC's can develop secondary to structural disease; however, full systemic evaluation is strongly recommended, particularly given current clinical signs. While no anti-arrhythmic therapy is specifically indicated with only single VPC's, Atenolol may be useful in this case to both decrease the outflow tract obstruction and decrease frequency of VPC's in this patient. If there is difficulty medicating at home, an alternative approach would be closely monitoring for progression in the next 6 months.

Anesthetic risk is elevated due to the VPC's and is not advised in this patient.

Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.) in the future.

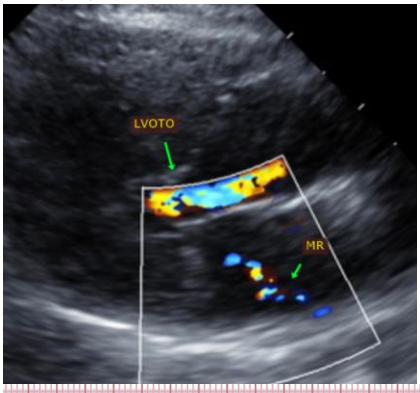
The reported blood pressure is elevated; however, only a single reading is provided. Recommend reassess in light of echo findings. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. If persistently >180mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect. Additionally, if deemed accurate, screening for predisposing underlying causes of SHT is recommended (Cushing's, PLN, adrenal tumor, etc.), as primary disease is relatively uncommon and a rule out diagnosis.

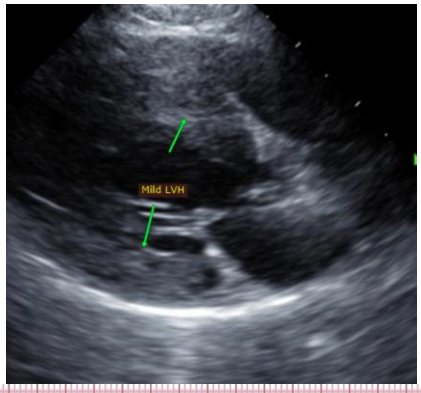
PLAN

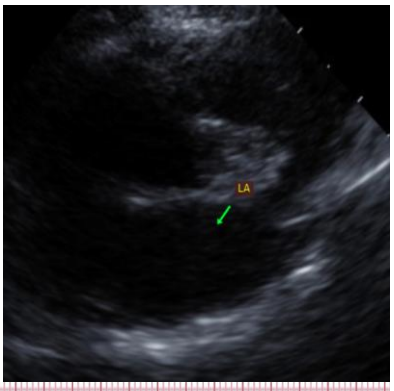
Reassess BP as discussed. Screening T4 is recommended. If able and elected, institute titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached. Consider full systemic screening.

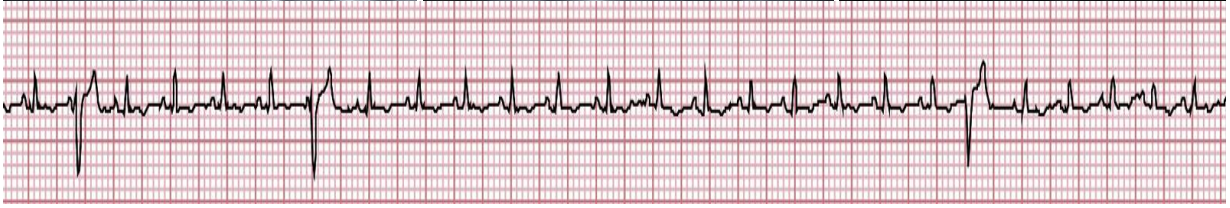
Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

IMAGES









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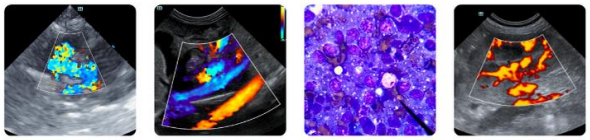

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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