



PATIENT

Charlie Perreault

PRESENTING CLINICAL SIGNS

History: Grade III/VI systolic murmur. Needs dental. BP: 130mmHg.

SPECIES

Feline

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 20mm/mV. The average heart rate is 166bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS is inverted. MEA is shifted right. Rare isolated VPCs are noted; singles only, monomorphic. No supraventricular premature beats, pauses or other dysrhythmias observed.

BREED

DLH

ECG diagnosis: Normal sinus rhythm with isolated VPCs. Right axis deviation.

SEX

Male Neutered

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV chamber is normal with adequate myocardial function. The LV wall thicknesses are mildly increased. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied.

AGE

10 years

Left atrium: The left atrium is mildly enlarged. No smoke or thrombi seen.

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

WEIGHT

14lbs

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mild to moderately increased aortic outflow velocity with a dynamic profile. No aortic insufficiency.

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

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. Elevated RVOT velocity with a dynamic component.

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

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

2-Dimensional Measurements

Ao diam (cm)	1.06
LA diam (cm)	1.76
LA:Ao (Swe)	1.65
IVS thickness (cm)	0.67
LVID diastole (cm)	1.7
PW thickness (cm)	0.58
LVID systole (cm)	0.6
FS (%)	64

Doppler Measurements

PV Vmax (m/s)	2.7
AoV Vmax (m/s)	4.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

HOSPITAL NAME

VCA Palmer

REFERRING VET

Dr. Mellon

INTERPRETATION OF THE FINDINGS

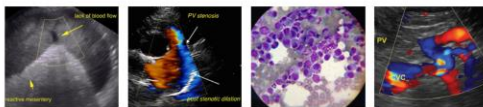
The diagnosis and cause of the murmur is hypertrophic obstructive cardiomyopathy (HOCM). This indicates some degree of LV thickening (mild in this case) with a dynamic LVOT obstruction (SAM). There is mild left atrial dilation, indicating the risk for progression to spontaneous CHF and/or a thrombotic event is currently low. A dynamic obstruction is also noted, which is benign flow abnormality that may contribute to murmur intensity. No additional issues are identified.

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The ECG does confirm isolated ventricular premature contractions (VPCs). VPCs can certainly be cardiac in origin secondary to significant structural disease which is likely the case here. Extra-cardiac causes should be considered, including systemic disease, neoplasia, etc.

SPECIES
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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. This is recommended in this case given the degree totally of the findings.

BREED
 DLH

No obvious indication for anti-arrhythmic therapy at this time, although Atenolol will likely help. The frequency and markers of malignancy are both low. Close monitoring for any associated clinical signs suggestive of sustained arrhythmias is recommended, including collapse or significant lethargy with immediate re-evaluation in these instances. Prognosis is guarded given the severity of disease and concurrent arrhythmias. Patient will always be risk for progression to CHF, development of blood clots and/or sudden death in the future.

SEX
 Male Neutered

AGE

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WEIGHT
 14lbs

RECOMMENDATIONS

- 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.
- Monitor BP/T4 every 6 months.
- Anesthetic risk is considered elevated, with high risk for fluid overload, spontaneous CHF, hypotension, etc. Risk versus benefit ratio should be considered. Judicious IV fluid rates are advised to avoid fluid overload. Drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, acepromazine and Dexdomitor.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

INTERPRETED BY

Maggie Machen
 Lamy, DVM
 DACVIM (Cardiology)

PLAN

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

IMAGING PERFORMED BY

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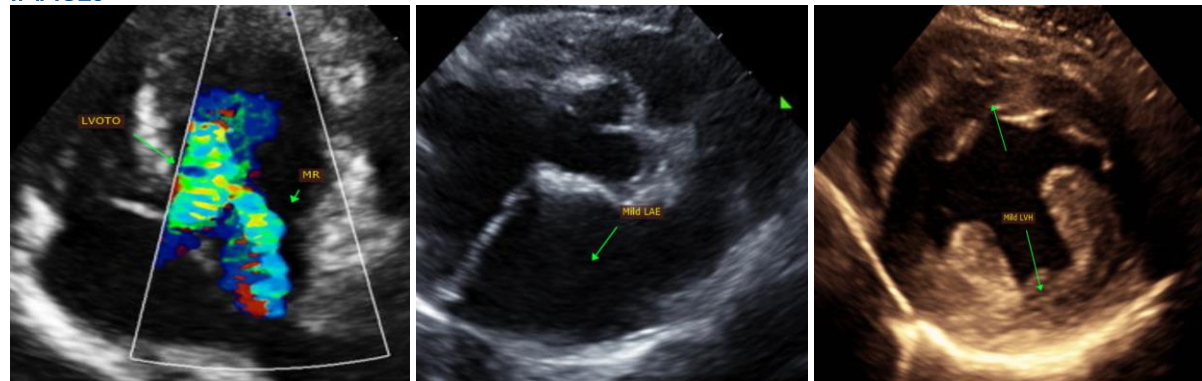
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IMAGES





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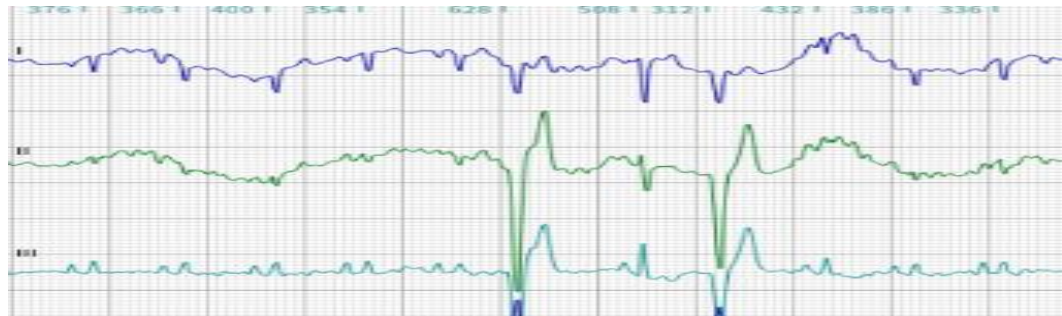
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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Echocardiogram performed by: Pamela Harrigan, RDCS
 Pet Animal Ultrasound Service (4paus.com)