



PATIENT

Happy Rhoades

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

16 years

WEIGHT

9.3lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Wignall Animal
Hospital

REFERRING VET

Dr. Thomas

INVOICE

26504

DATE

9/22/22

PRESENTING CLINICAL SIGNS

History: Intermittent grade II-III/VI murmur; no arrhythmias auscultated. Echocardiogram prior to anesthesia for dental procedure.
BP: 190, 198, 204mmHg

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, 20mm/mV. The average heart rate is 188bpm with a regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. P morphology is positive. The QRS is inverted. A single VPC is identified. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with a single VPC.

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 measures normal with the exception of a focal septal thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled and hyperechoic.

Left atrium: The left atrium is normal. No obvious spontaneous contrast or thrombi seen.

Mitral valve: The mitral valve is normal in structure and mobility. No obvious systolic anterior motion is seen. No MR.

Aortic valve/Aorta: The aortic valve is normal. Normal aortic outflow velocity; laminar flow. Mild aortic insufficiency. The aortic root and ascending segment are significantly dilated.

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.

Pulmonic 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.

2-Dimensional Measurements

Ao diam (cm)	1.2
LA diam (cm)	1.1
LA:Ao (Swe)	0.9
IVS thickness (cm)	0.64
LVID diastole (cm)	1.2
PW thickness (cm)	0.38
LVID systole (cm)	0.6
FS (%)	46

Doppler Measurements

PV Vmax (m/s)	0.74
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

The primary abnormality identified is a focal septal thickening. This may reflect early hypertrophic disease or may simply be a normal variant. The remainder of the LV measures normal. No cause for the murmur is identified, making it likely physiologic in origin. Most importantly, the LA measures normal indicating low risk for complication at this time. Of potentially greater clinical significance, the aortic root and ascending



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segment appear dilated with an aortic insufficiency. These are consistent with reported systemic hypertension. No additional issues are noted.

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The ECG is largely normal with the exception of a single VPC. VPCs can be secondary to structural disease, which is not appreciated here. Other possible causes include systemic illness, **such as high blood pressure** or simple secondary to stress. In this senior cat, no treatment is warranted at this time and simple monitoring is advised.

BREED
DSH

The reported blood pressure is elevated, which is supported by the echo findings. Recommend institution of amlodipine to effect. Additionally, screening for predisposing underlying causes of SHT is recommended (Cushings, PLN, adrenal tumor, etc), as primary disease is relatively uncommon and a rule out diagnosis. If needed, an IM consultation may be beneficial.

SEX
Male Neutered

Prognosis is guarded, due to the highly variable rates of progression with subclinical feline cardiomyopathy.

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RECOMMENDATIONS

- Given these findings, no medications are indicated.
- **Institute Amlodipine to effect (target <150mmHg in hospital).**
- Once controlled, monitor BP and 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). A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.
- Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

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PLAN

- Recommend recheck echocardiogram in 6-12 months to screen for progression, sooner if any clinical signs arise in the interim.

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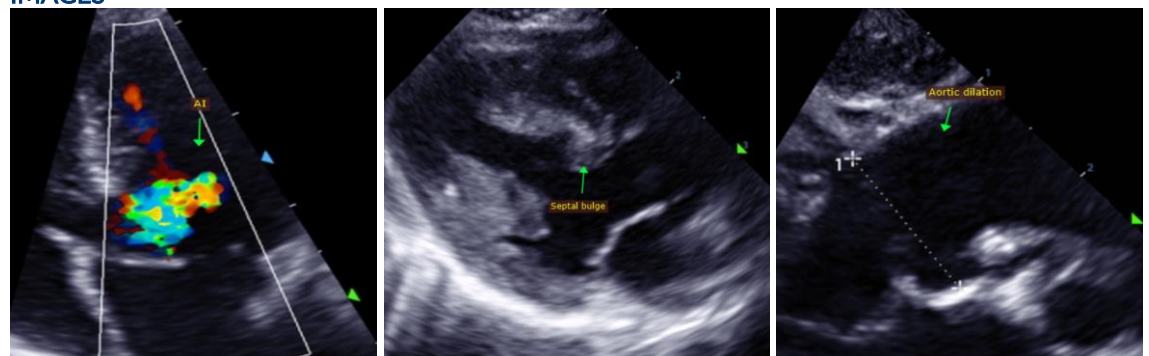
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IMAGES





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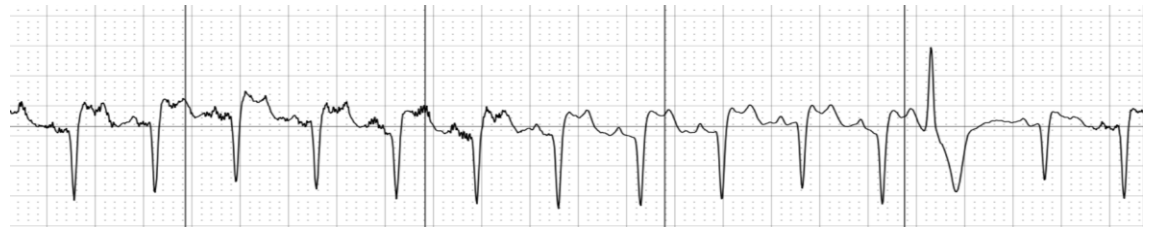
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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