


PATIENT

Zoey Hapka

PRESENTING CLINICAL SIGNS

 History: Heart murmur. Renal disease.
 -Current medications: Amlodipine, Methimazole and MiraLAX.

SPECIES

Feline

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; 50mm/s, 20mm/mV. The average heart rate is 180bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are low voltage. No ectopic beats, pauses or other dysrhythmias observed.

BREED

DSH

ECG diagnosis: Normal sinus rhythm.

SEX

Female Spayed

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. The endocardium also appears mildly remodeled. The papillary muscles appear mildly remodeled. The left atrium is mildly enlarged. The right atrium is normal in size. The right ventricle appears normal. The tricuspid valve appears normal in structure and mobility. No tricuspid regurgitation. The mitral valve is normal in structure and mobility. No mitral regurgitation. Blood flow through the RVOT is mildly elevated in velocity based upon Doppler and color flow, likely secondary to tachycardia creating a benign outflow tract obstruction. Blood flow through the LVOT appears normal with no evidence of obstruction. No evidence of cardiac tumors or metastatic lesions on this scan.

AGE

18 years

WEIGHT

7.3lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LVWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	3.3	NM	0.51	1.06	0.47	55	89
FELINE CARDIAC PARAMETERS	LA/AO <small>(Boon)</small>	LA/AO HEART BASE (Swe) <small>(Abbott)</small>	LA 2D short axis Base view (cm) <small>(Abbott)</small>		LVOT VEL <small>(m/s)</small>	RVOT VEL <small>(m/s)</small>	E max <small>(m/s)</small>
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	1.2	1.5	1.44		1.6	2.2	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.

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HOSPITAL NAME

Eubank Animal Clinic

REFERRING VET

Dr. Russman

INVOICE

28793

DATE

2/6/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The only cause of a murmur identified is a heart rate dependent flow obstruction through the right ventricle (DRVOTO), which is a physiologic finding (i.e., benign and of little clinical significance). This type of flow murmur will wax and wane secondary to tachycardia and volume changes. There is also a significant amount of LV remodeling and fibrosis with a mildly dilated left atrium. This may suggest early pathology or simply represent a normal variant in this geriatric cat.



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Follow up is advised. Serial echocardiography will be necessary to determine progression and clinical relevance in the future.

SPECIES

Feline

Prognosis is guarded given the age of the patient.

BREED

DSH

If needed, the risk for general anesthesia is low, however heart rate stimulating drugs such as atropine, glycopyrrolate or ketamine should be avoided unless medically necessary. Even without significant pathology, with this degree of remodeling and diastolic stiffening there is a mildly elevated risk for fluid overload in this patient. Judicious IV fluid use is recommended. Additionally a screening blood pressure is recommended in any older cat prior to general anesthesia.

SEX

Female Spayed

Given these findings, no medications are indicated at this time.

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18 years

Recommend recheck echocardiogram in 6-12months to assess for progression or development of disease the pre-existing murmur may mask.

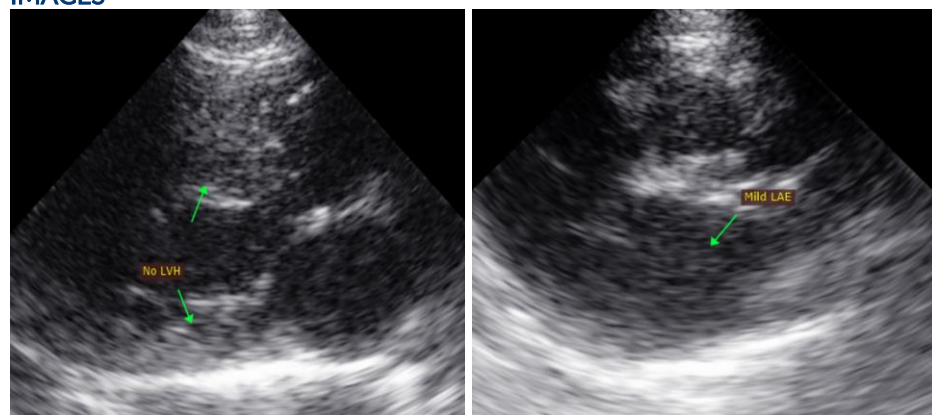
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IMAGES

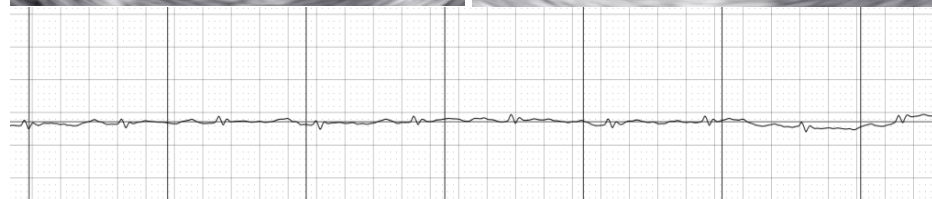
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HOSPITAL NAME

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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.

REFERRING VET

Dr. Russman

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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