

PATIENT

Cash Magruder

SPECIES

Feline

BREED

Domestic Short Hair

SEX

MN

AGE

2009

WEIGHT

11.6lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Animal Care Center

REFERRING VET

Dr.

INVOICE

20886

DATE

9/3/21

PRESENTING CLINICAL SIGNS

History: Pre-operative scan, seen in 2020 for physical exam and heard 3/6 murmur (last exam prior to that was 2009), no change on exam on 8/6/21. Dental disease on exam, no coughing noted at home, murmur on 9/1 was 4/6.

Pertinent abnormal PE/Chem/CBC/UA Results: Bloodwork normal

Current medications: None at this time

Blood pressure: Not provided.

Sedation used: Not needed.

Pertinent previous ultrasound results: No previous.

STAT: Not requested.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension, although highly irregular. 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 normal in size. The right atrium is normal in size. The right ventricle appears normal. The tricuspid valve appears normal in structure and mobility. Trace tricuspid regurgitation. The mitral valve is normal in structure and mobility. Trace mitral regurgitation. Blood flow through the RVOT is mildly elevated in velocity based upon color flow with a dynamic spectral profile 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.

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	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	5	207	0.4	1.8	0.4	55	88
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	1.21	1.2		1.4	1.8	NM
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

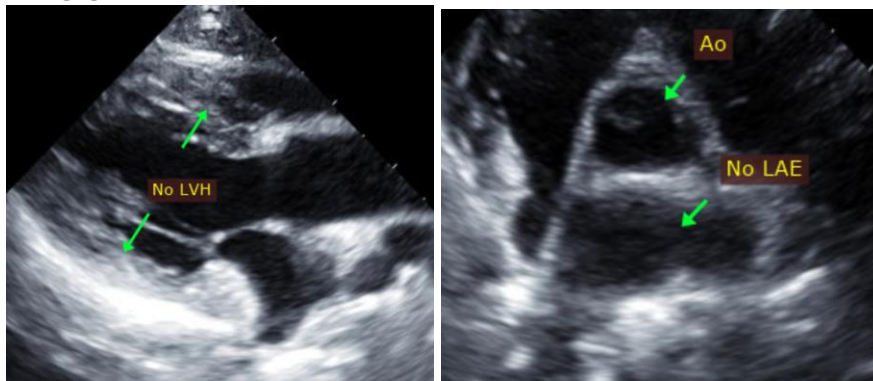
The only cause of a murmur identified is a suspect heart rate dependent flow obstruction through the right ventricle (DRVOTO), which is a physiologic finding (ie benign and of little clinical significance). This type of flow murmur will wax and wane secondary to tachycardia and volume changes. There is however a significant amount of LV remodeling and fibrosis, which may be indicative of early pathology or simply represent a normal variant. Regardless the left atrial dimension is normal, and there is minimal risk for complication at this time. Serial echocardiography will be necessary to determine progression and clinical relevance in the future.

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.

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

Recommend recheck echocardiogram in 1 year to assess for progression or development of disease the pre-existing murmur may mask.

IMAGES



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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