

PATIENT

Sapphire Kuss

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

9 years

WEIGHT

9.4lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Andy Carver, DVM
DACVECC

HOSPITAL NAME

Red River Animal
Emergency Hospital &
Referral Center

REFERRING VET

Dr. Carver

INVOICE

47448

DATE

PRESENTING CLINICAL SIGNS

History: Recheck echo. Increased exercise intolerance. Historic elevated BNP. CXR suggested feline asthma and also odd markedly reduced right lung volume/parenchyma of unknown cause but suspect chronic/congenital.

-Pertinent previous echo findings (4/2025 MML): Possible LV hypertrophy (LVWd: 0.65), LVOTO with trace MR. LA: 1.1. VPCs noted at that time.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The ventricular septum is normal in dimension. The posterior wall appears to have regions of mild thickening, with an abnormal papillary architecture (rule out hypertrophy v fusion v mass like lesion). There is a mildly hyperechoic endocardium consistent with mild fibrosis. The endocardium also appears mildly remodeled. The papillary muscles are normal in size and hyperechoic. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure with systolic anterior motion noted. The LVOT velocity is normal on spectral doppler; however, an obstruction is seen on 2D and color flow imaging. Trace/mild mitral valve regurgitation. Blood flow through the RVOT is normal in velocity. No pleural or pericardial effusion seen. No obvious cardiac tumors. Ventricular arrhythmias are noted throughout the study.

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	4.3	NM	0.48	1.3	0.62	60	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	1.4	1.3	>1.0	1.2	NM	
<p><i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i> 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.</p>							

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior evaluation, findings are quite similar. The posterior wall and lateral papillary muscle remain abnormal with a fused morphology, which was noted previously. The remainder of the LV is unremarkable and the LA normal. Mild LVOT obstruction persists with mild MR.



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VPCs persists throughout the study, as has been documented previously. Reassessing an ECG is recommended going forward.

Given these findings, no additional medications are indicated. Prognosis is guarded long-term due to the significance of the abnormalities.

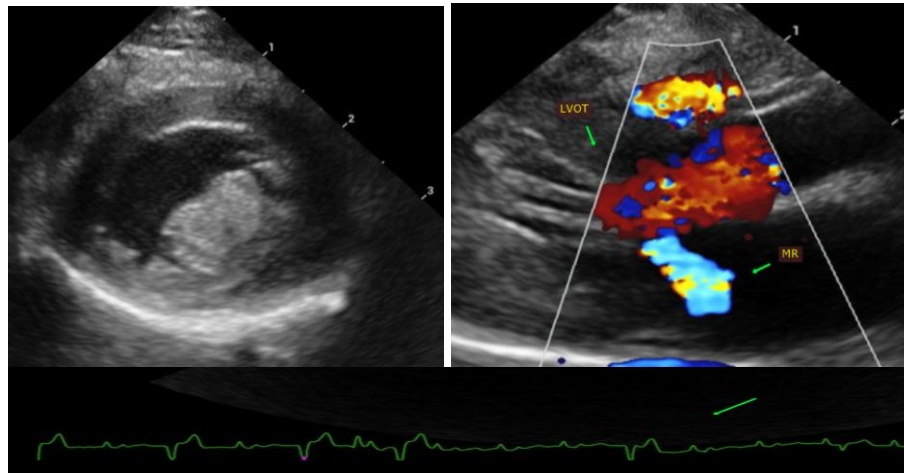
Anesthetic risk is elevated with ventricular arrhythmias. Judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance. Monitor an ECG throughout and intervene as indicated (i.e. if sustained tachyarrhythmias develop). 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.

PLAN:

Consider reassessing an ECG.

Recommend recheck echocardiogram and ECG in 6 months to assess for any progressive issues.

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.

Maggie Machen Lamy, DVM

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