



PATIENT

Squirt Kernaghan

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

~14 years

WEIGHT

12.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kelly Romero

HOSPITAL NAME

Midtown

REFERRING VET

Dr. McCarthy

INVOICE

22302

DATE

3/8/22

PRESENTING CLINICAL SIGNS

History: Grade III/VI systolic heart murmur. No clinical symptoms. Assess prior to dental.
-Blood pressure 123/100 (106 mean)mmHg.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal in dimension with a focal septal thickening. There is a mildly hyperechoic endocardium consistent with fibrosis and remodeling. Papillary muscles appear mildly remodeled. The anterior leaflet of the MV appears normal. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. No TR. The mitral valve is normal in structure and mobility. No MR. Blood flow through the RVOT is normal in velocity. Blood flow through the LVOT is normal on doppler; however, intermittent obstruction is suspected on color flow imaging. There is no pleural or pericardial effusion seen. There are no obvious cardiac tumors.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWVd (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	5.7	NM	0.6	1.4	0.48	69	96
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	1.4	1.3	1.3		1.6	1.0	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.*

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is suspected to be a dynamic LVOT obstruction, secondary to tachycardia. The LV wall dimensions are largely normal with a focal septal bulge, which is likely the cause of the obstruction. This may reflect early hypertrophic disease or may simply be a normal variant. There is a subset of cats with a dynamic LVOT obstruction that is stress-related and does not lead to secondary LV or LA changes. Serial echocardiography will be necessary to determine progression and clinical relevance of findings. Should LVH develop globally in the future, a beta blocker may be indicated to lower heart rate and decrease the pressure gradient.

Monitor for any clinical signs associated with progression, including increased RR/RE, syncope or signs of a blood clot (paralysis, neurologic change, etc.).

Anesthetic risk is currently low. Avoid heart rate stimulating drugs (atropine, glycopyrrolate) unless clinically necessary. Avoid vasodilators such as acepromazine as this can worsen obstruction. Judicious IV fluid rates are recommended to avoid fluid overload in this patient with diastolic dysfunction.



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A recheck echocardiogram is recommended in 6-12 months to assess for progression, sooner if any clinical signs arise.

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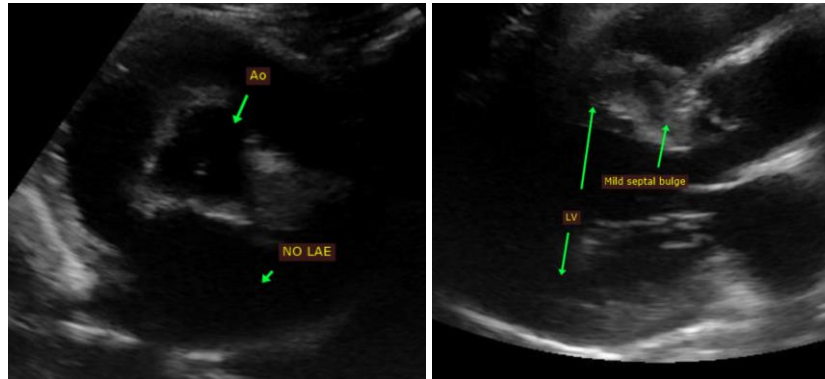
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IMAGES



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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