


PATIENT

Kory Knox

PRESENTING CLINICAL SIGNS

History: Murmur heard at 2nd kitten visit (grade 2/6), rechecked last week and is now grade 3. no symptoms, concern for cardiomyopathy

SPECIES

Feline

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is borderline with no significant hypertrophy. There is a diffusely hyperechoic endocardium with regions of remodeling. The right ventricle is normal. There is no left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity, however color Doppler is suggestive of a dynamic obstruction. Abnormal anterior motion of the mitral valve is seen, causing an elevated LVOTO velocity with a dynamic profile. The anterior leaflet of the MV is elongated and thickened, consistent with dysplasia. There is moderate eccentric secondary mitral regurgitation present. No other obvious valvular regurgitation is present. There is no pericardial effusion noted. No pleural effusion appreciated.

BREED

DMH

SEX

Male Neutered

AGE

7 months

CARDIAC CHART
WEIGHT

8lbs

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	3.6	210	0.55	1.2	0.56	48	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	1.1	1.3	1.1		2.0	1.4	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.							

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Kelly Reschny, RVT

HOSPITAL NAME

 Hawkins Animal
 Hospital

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is mitral valve dysplasia leading to an LVOT obstruction and secondary mitral regurgitation. There is no left atrial dilation or LV hypertrophy, indicating the risk of spontaneous CHF and/or a thrombotic event is currently low. No additional issues are identified.

REFERRING VET

Dr. Hawkins

While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. In cases of solely primary MV dysplasia this can lead to improvement in the degree of obstruction and hypertrophy. Given the young age of the cat it is reasonable to initiate at this time as below. As an alternative, this can be revisited once we reassess for progression (particularly given no LVH). Discussion with the owner is advised.

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DATE

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Monitor at home for any respiratory signs or evidence of blood clot events (neurologic change, paralysis, etc.).



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Long term prognosis is guarded given the age of the patient and highly variable nature of asymptomatic feline heart disease. Many cats will remain asymptomatic until mid-life or beyond. Close monitoring for progression of LA dilation in the future will help determine long term prognosis.

SPECIES

Feline

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)**. Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Additionally, steroids should be used with caution in cats, as even a 'normal' heart can develop evidence of intolerance and fluid retention.

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PLAN

If elected, administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached. Screening blood pressure is recommended.

Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

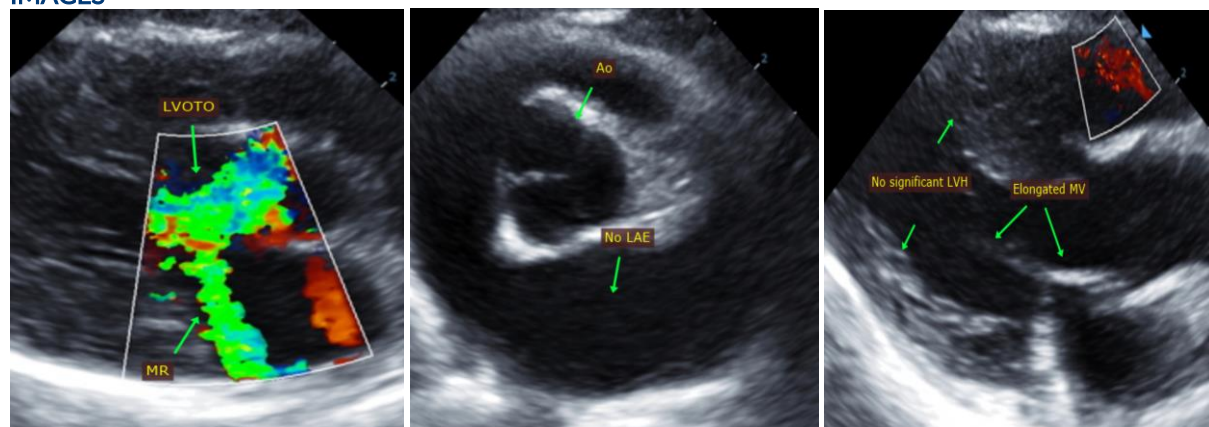
WEIGHT

8lbs

IMAGES

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)



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Kelly Reschny, RVT

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Hospital

REFERRING VET

Dr. Hawkins

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.

INVOICE

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DATE

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Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com