



**PATIENT**

Riley Rikholf

**SPECIES**

Feline

**BREED**

DMH

**SEX**

Male Neutered

**AGE**

6 years

**WEIGHT**

17lbs

**INTERPRETED BY**

Maggie Machen  
 Lamy, DVM, DACVIM  
 (Cardiology)

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

VCA Mckenzie  
 Animal Hospital

**REFERRING VET**

Dr. Wayland

**PRESENTING CLINICAL SIGNS**

History: Recheck echo. Grade 3/6 heart murmur. BP: 148mmHg.  
 -Current medications: Atenolol.  
 -Pertinent previous echo findings (11/2021 MML): Mild LVH: 0.61/0.65cm. Mild LAE, no LVOTO.

**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 250bpm with a regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P morphology is positive. The QRS is isoelectric. No ectopic beats, pauses or dysrhythmias observed.  
 ECG diagnosis: Normal sinus tachycardia.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly increased in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and remodeling. The right ventricle is subjectively normal in size and morphology. There is mild left atrial enlargement present. No right atrial enlargement present. The RVOT velocity is elevated with a dynamic profile. Trace TR. Normal LVOT velocity on Spectral; however, an intermittent LVOTO is appreciated on ancillary imaging. There is no obvious systolic anterior motion (SAM) of the mitral valve present. Mild MR. Normal velocity. Trace AI. There is no pericardial or pleural effusion appreciated. No obvious cardiac tumors.

**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	7.7	240	0.63	1.0	0.62	66	94
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	1.46	1.5	1.4		1.5	2.0	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**

Compared to the prior study, the findings are similar. Mild LVH and LAE are unchanged with no obvious progression. An LVOTO is now appreciated, which was not seen previously. This is in addition to a dynamic RVOTO, which is a benign flow abnormality. No additional issues are identified. The ECG is unremarkable with a sinus tachycardia.

**INVOICE**

27247

**DATE**

11/2/22



**PATIENT**

Riley Rikholf

It remains unclear if this patient historically needs Atenolol. What is seen here shows poor heart rate control with rates of 250bpm throughout the study. Recommend reassess the heart rate as the sole reason for a visit and consider dose titration if persistently elevated.

**SPECIES**

Feline

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

**BREED**

DMH

Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.

**SEX**

Male Neutered

**PLAN**

A screening blood pressure and T4 are recommended every 6 months lifelong. Reassess heart rate and alter Atenolol if indicated.

**AGE**

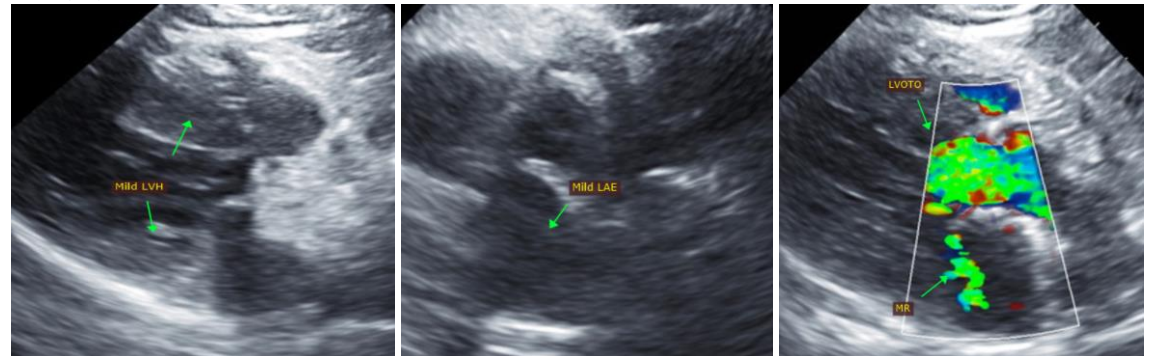
6 years

A recheck echocardiogram is recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

**WEIGHT**

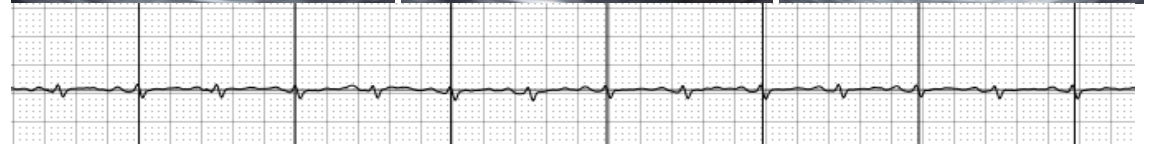
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**IMAGES**



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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.

**INVOICE**

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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.

**DATE**

11/2/22

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