

**PATIENT**

Meg Schmitz

**PRESENTING CLINICAL SIGNS**

History: Heart murmur. Assess prior to anesthesia.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Spayed

**AGE**

8 years

**WEIGHT**

6.9

**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 from an AliveCor monitor; 50mm/s, 20mm/mV. The average heart rate is 260bpm with largely regular rhythm. P waves cannot be identified due to baseline interference; however, a sinus origin is suspected. P for every QRS complex and vice versa. The P and QRS morphologies are positive with normal dimension. No ectopic beats, pauses or other dysrhythmias observed. ECG diagnosis: Suspect sinus tachycardia.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mild to moderately hypertrophied with a small chamber. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Papillary muscle hypertrophy. The right ventricle is normal. There is no left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. Abnormal anterior motion of the mitral valve is present with an elevated LVOT velocity (not captured on Spectral doppler). The anterior leaflet of the MV appears thickened and elongated, consistent with some degree of dysplasia. There is mild eccentric mitral regurgitation present. No other valvular leaks noted. There is no pericardial effusion noted. No pleural effusion appreciated.

**CARDIAC CHART**

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT ARDMS/RVT

**HOSPITAL NAME**

Community Veterinary Practice

**REFERRING VET**

Dr. Carpenter

**INVOICE**

24023

**DATE**

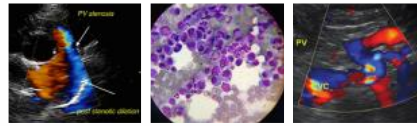
5/4/22

FELINE CARDIAC PARAMETERS	BODY WEIGHT	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	6.9	NM	0.71	0.8	0.71	66	95
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	1.3	1.3	1.1		1.8	1.0	NM
<p>*Note: All measurements based upon multi-modal images and methods. An average value is reported. Adapted from June Boon, Veterinary Echocardiography, 1998 Abbott J &amp; 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**

The presumptive diagnosis and cause of the murmur is mitral valve dysplasia leading to LV hypertrophy and an obstructive LVOT flow pattern. A primary hypertrophic component is also possible given the age of the patient. Regardless, there is moderate LV hypertrophy present with no left atrial dilation indicating the current risk for complication low. No additional issues are identified. The ECG shows a significant tachycardia, which is suspected to be sinus in origin.

In cases of solely primary MV dysplasia use of atenolol can lead to improvement in the degree of obstruction and hypertrophy. Given today's findings it is reasonable to initiate at this time as



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

**SPECIES**  
Feline

Long term prognosis is guarded given the highly variable nature of asymptomatic feline heart disease. Many cats will remain asymptomatic until mid-life or beyond, while others develop CHF within the first years. Close monitoring for response/improvement with atenolol, progression of LA dilation/LVH in the future will help determine long term prognosis.

**BREED**  
DSH

Anesthetic risk is considered mildly elevated, with risk for fluid overload, spontaneous CHF, hypotension, etc. Judicious IV fluid rates are advised to avoid fluid overload. Drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, acepromazine and Dexdomitor.

**SEX**  
Female Spayed

**PLAN**

Screening BP. 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.

**AGE**  
8 years

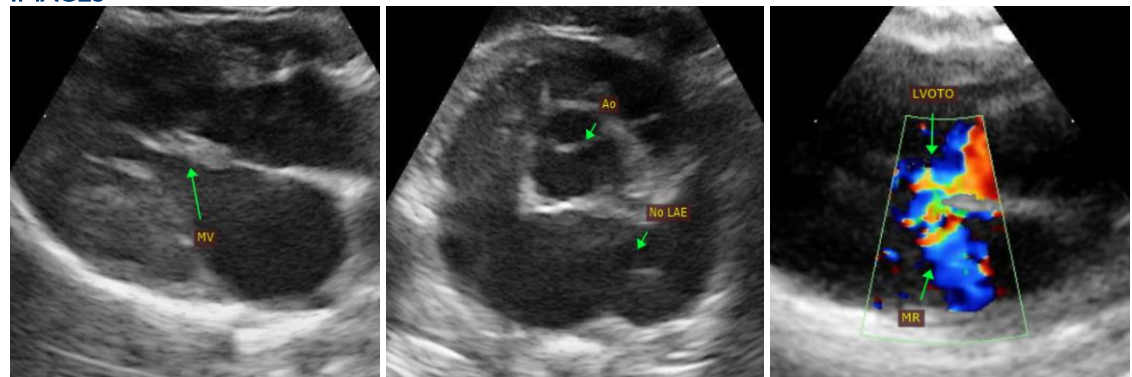
Recommend recheck echocardiogram in 6 months to assess for progression and response to therapy, sooner if clinical issues arise.

**WEIGHT**  
6.9

**IMAGES**

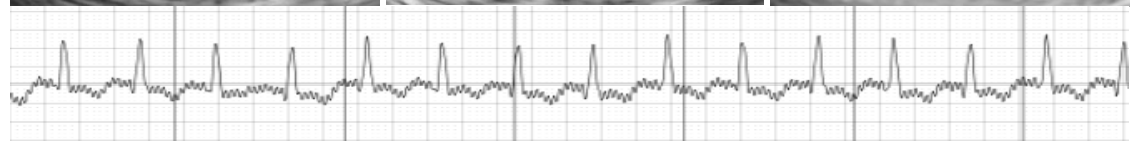
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**REFERRING VET**

Dr. Carpenter

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**  
24023

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**  
5/4/22

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