

**PATIENT**

Millie Hinshelwood

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

11 Years 2 Months

**WEIGHT**

6.6 pounds

**INTERPRETED BY**

Sara Brethel DVM,  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Kathleen Byrnes

**HOSPITAL NAME**

Animal Hospital of  
Lewisville

**REFERRING VET**

Dr. Journell

**INVOICE**

15115

**DATE**

04/14/26

**PRESENTING CLINICAL SIGNS**

P presented for echo due to loud murmur. Please comment on anesthesia for dental

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	3.0	187	0.62	1.3	0.42	52.31	--
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	LVIDs (m/s)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	
PATIENT	--	1.48	1.34		2.11	2.07	0.62
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

MR: 7.92

**Cardiac Presentation**

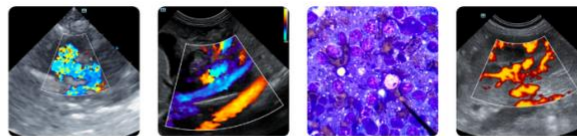
The mitral valve leaflets are normal and there is mild mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is within normal limits. Left ventricular systolic function appears preserved. Left ventricular diastolic dimensions are within normal limits. There is evidence of systolic anterior motion of the mitral valve and there is a discrete step up in velocities through the left ventricular outflow tract. There is evidence of a kissing lesion at the level of SAM and the left ventricular myocardium appears hyperechoic in some regions. Left ventricular walls measure hypertrophied. There is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. The aortic and pulmonic valves have normal morphology. Pulmonic outflow velocity displays dynamic right ventricular outflow tract obstruction. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

**ECG**

Sinus rhythm.

**ULTRASONOGRAPHIC FINDINGS**

- HOCM stage B1.
- Normal left atrial size.
- Dynamic right ventricular outflow tract obstruction (benign).



**PATIENT**

- Mild left ventricular outflow tract obstruction.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**SPECIES**

The patient's murmur is from a mild left ventricular outflow tract obstruction and mitral regurgitation. No cardiac therapies are indicated at this time. The benign dynamic right ventricular outflow tract obstruction is likely contributing to the murmur. The patient does have evidence of hypertrophic obstructive cardiomyopathy. Serial monitoring is recommended. Recommend ensuring the patient is normotensive and euthyroid.

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Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.

**AGE**

Recheck echo is recommended in six months, sooner if the patient is developing cardiovascular clinical signs.

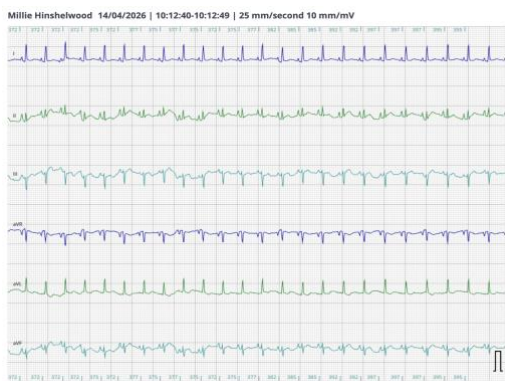
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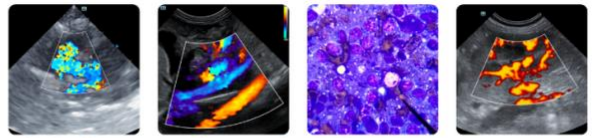
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



**PATIENT**

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can be of any further assistance please contact me.

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