



**PATIENT**

Nuggie Marie Layton

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female

**AGE**

10 years

**WEIGHT**

4.8

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Sands Hill Mobile  
Veterinary Ultrasound

**HOSPITAL NAME**

Sands Hill Mobile  
Veterinary Ultrasound

**REFERRING VET**

Dr. Tarter

**INVOICE**

22689

**DATE**

2/18/22

**PRESENTING CLINICAL SIGNS**

History: Gallop, heart murmur.  
-Abnormal PE/Chem/CBC/UA Results: Tot Bil 2.4.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a hyperechoic endocardium consistent with fibrosis. The left atrium is normal in size. Mild MV thickening with mild to moderate mitral regurgitation. No obvious systolic anterior motion of the MV is seen. The right atrium is normal in size. The right ventricle appears normal. Trace TR. Blood flow through both the LVOT and RVOT are normal in velocity. No effusions or cardiac tumors are identified.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT	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	4.8	190	0.37	1.58	0.38	51	85
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	NM	1.2	1.0		0.8	0.6	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 mild to moderate mitral regurgitation. MR in cats is typically due to either MV dysplasia (abnormal morphology from birth) or secondary to abnormal valve motion (SAM/HOCM), neither of which are seen in this study. Mild MV thickening may represent early valve disease similar to as seen in dogs, and serial monitoring is advised particularly given the relatively large volume of regurgitation for a cat. The left atrium however is normal, indicating the risk for associated clinical signs and CHF at this time however, and no medications are indicated.

Given a normal LA dimension, no medications are indicated and simple follow up is advised. Risk is low for complication; however, long-term prognosis is guarded given the highly variable rates of progression of sub-clinical feline cardiomyopathy.

The risk for general anesthesia is low, however heart rate stimulating drugs such as atropine, glycopyrrolate should be avoided unless medically necessary. Even without significant pathology, there is a mildly elevated risk for fluid overload in this patient. Judicious IV fluid use is recommended.



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Recheck echocardiogram is recommended in 6 months, sooner if development of any clinical signs.

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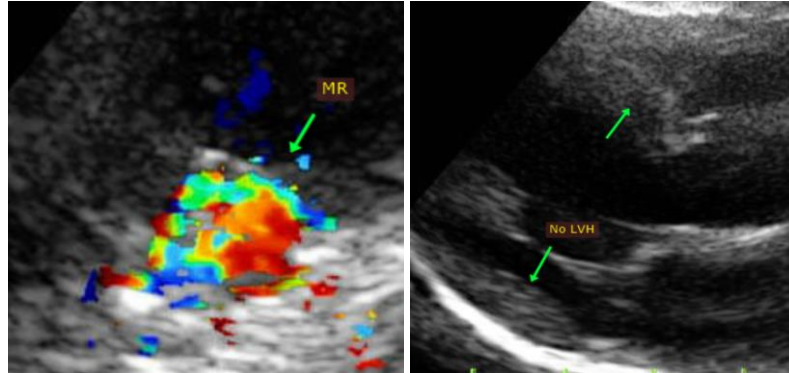
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**IMAGES**



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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