

**PATIENT**

Rudy Loucks

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

16 yrs

**WEIGHT**

12 lbs.

**INTERPRETED BY**

R. McKenzie Daniel,  
 DVM, DABVP  
 (Canine and Feline)

**IMAGING PERFORMED BY**

Amanda Stewart

**HOSPITAL NAME**

Halton Peel AH

**REFERRING VET**

Walters

**INVOICE**

10500

**DATE**

1/6/25

**PRESENTING CLINICAL SIGNS**

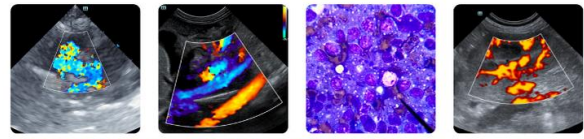
Heart murmur Current Medications cidofovir and fucithalamic for ophthalmic herpes  
 Abnormal PE/Chem/CBC/UA Results: Dec 18/25 Blood wnl Primary Question to Be Answered in  
 This Exam Reason for strong heart murmur?

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>PATIENT</b>		NM	0.51	1.32	0.48	50	82
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)	IVRT (m/)
<b>NORMAL PARAMETER</b>	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
<b>PATIENT</b>	1.3	1.3	1.3		1.0	1.6	NM
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							

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal, no LA spontaneous contract. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. Minor MR was noted on Doppler. No evidence of SAM. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. Normal measured LVOT velocity was noted. The **myocardium** presented minor echogenic remodeling consistent with expected age-related changes. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. TV insufficiency was noted Doppler, measuring 2.5 m/s MAX. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Normal measured RVOT velocity was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.



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**ULTRASONOGRAPHIC FINDINGS**

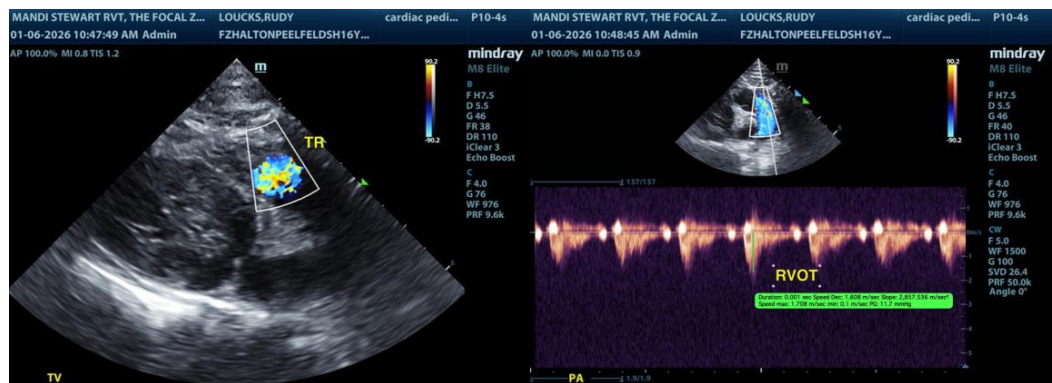
- Normal cardiac structure / function with mild LV remodeling
- Minor mitral valve insufficiency and mild tricuspid valve insufficiency

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is no evidence of clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction, HCM criteria, or other significant structural cardiomyopathy. The murmur may be associated with mitral or tricuspid valve insufficiency with potential for benign flow murmur, assuming no evidence of dehydration or anemia. Regardless of murmur classification, the hemodynamic effects of the murmur appear low, given no evidence of left or right heart chamber enlargement.

There is no indication for cardiac medications. Conservative monitoring of the murmur going forward is advised with recheck echocardiogram suggested in 6-12 months, sooner if increase in murmur intensity or if clinically indicated.

Current anesthetic risk is considered mild. If required, the following protocol is suggested. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.





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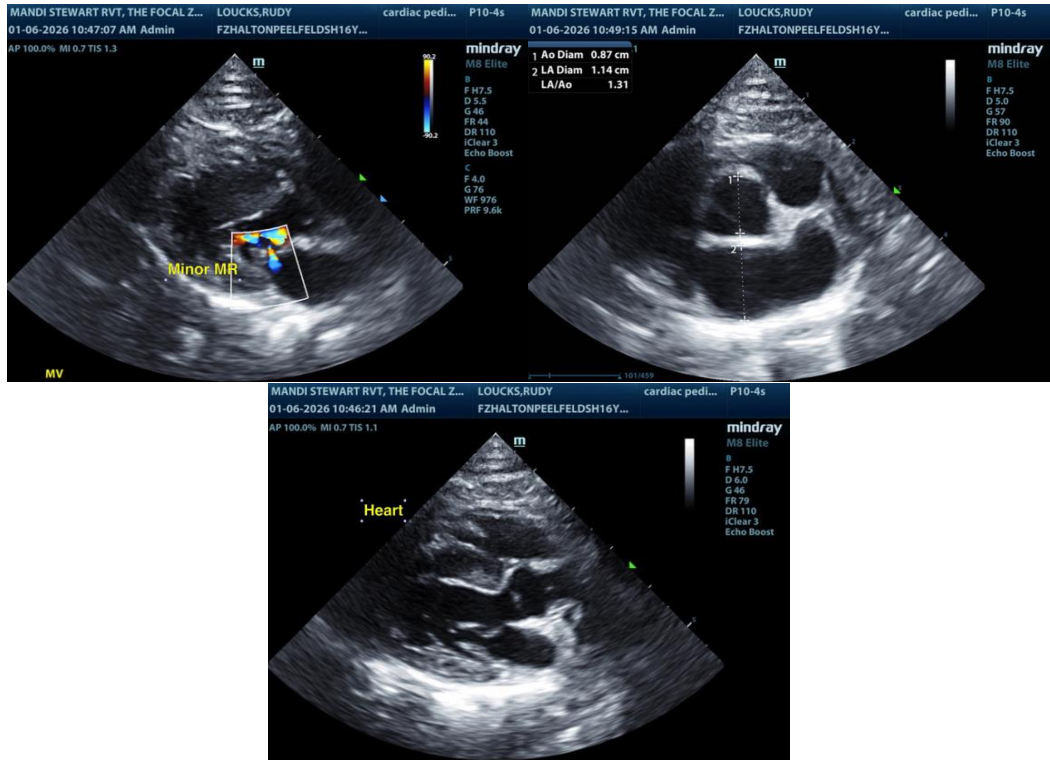
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)**  
[info@sonopath.com](mailto:info@sonopath.com)