



**PATIENT**

Clyde Rogers

**SPECIES**

Feline

**BREED**

Ragdoll

**SEX**

Neutered Male

**AGE**

4 Years

**WEIGHT**

14.5 pounds

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP (Canine  
/ Feline Practice)

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Heart and Paw LH

**REFERRING VET**

Dr. Verhalen

**INVOICE**

13681

**DATE**

02/10/26

**PRESENTING CLINICAL SIGNS**

- Grade 3/6 hm w/labored breathing. Mild increase RR/RE

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (lbs)	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	14.5	202	0.4	1.5	0.4	45	78
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/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	--	1.41	1.4		1.2	1.1	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 based on 2 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No definitive MR on doppler or visualized evidence of systolic anterior motion (SAM). The **left ventricular** septum and free wall revealed adequate contractility and normal left ventricular volume, and LV wall dimension yet some mild echogenic remodeling of the septum and free wall were noted. This does not appear to be a functional issue at this point without HCM criteria. This is most consistent with ventricular remodeling or possible emerging **myocardial fibrosis**. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. No definitive TR on doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Normal measured RVOT velocity. No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum** and **pericardial regions** were free of masses in the visible window. No evidence of arrhythmia.

**ULTRASONOGRAPHIC FINDINGS**

- Normal cardiac structure/function with mild LV remodeling.
- Normal LA.



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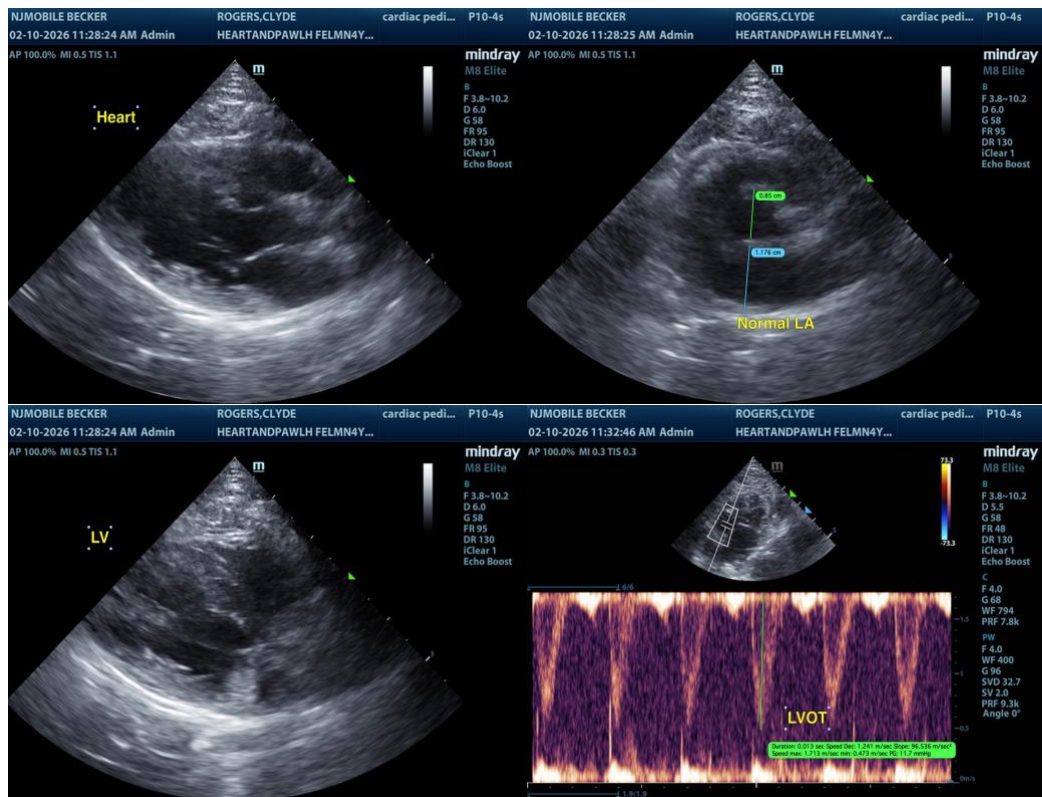
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of significant clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction, HCM criteria or other significant structural cardiomyopathy or arrhythmia.

A definitive cause of the murmur was not identified. Assuming no volume changes such as dehydration or anemia, a benign flow murmur is probable. A small nonvisualized flow abnormality is not excluded. Regardless of classification, the lack of cardiac chamber enlargement, most importantly, the lack of LA enlargement indicates the hemodynamic effects of the murmur are low. This also indicates that the respiratory abnormalities in this patient are likely noncardiogenic in origin. Correlate with three view chest radiographs to assess for primary pulmonary disease is recommended. Respiratory support is recommended without indication for cardiac medications. Recheck echocardiogram is recommended in 6-12 months, sooner if murmur intensity increases or clinical signs arise.

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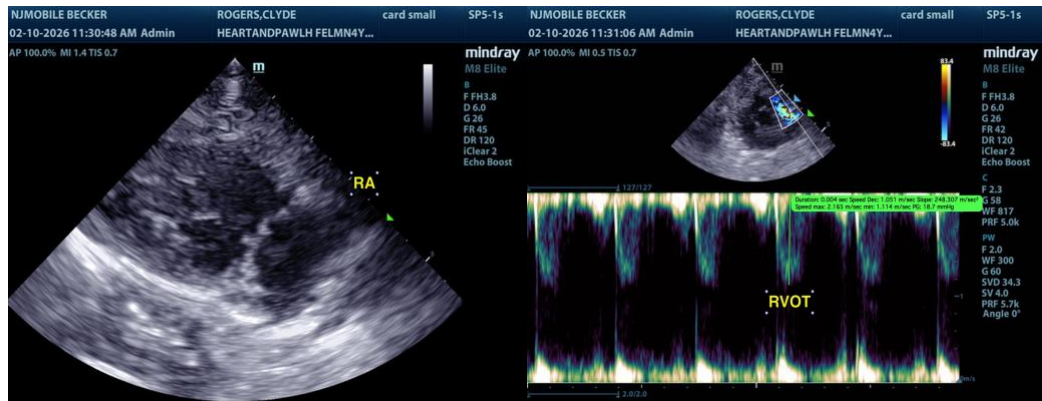
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)