

## PATIENT

Ralph Goodwin

## SPECIES

Feline

## BREED

DSH

## SEX

MN

## AGE

9.5 yrs

## WEIGHT

12.3 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Sorbo

## HOSPITAL NAME

JM Pet Resort & VC

## REFERRING VET

Sorbo

## INVOICE

10393

## DATE

12/2/25

## PRESENTING CLINICAL SIGNS

Murmur on exam

Abnormal PE/Chem/CBC/UA Results: Grade IV/VI systolic murmur bilaterally.

## 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		NM	0.54	1.7	0.56	63	93
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	1.3		1.4	1.1	2.2	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 evidence of overt MR on Doppler. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Normal measured LVOT velocity was noted. 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 evidence of overt 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). Mild increased measured RVOT velocity was noted. 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.



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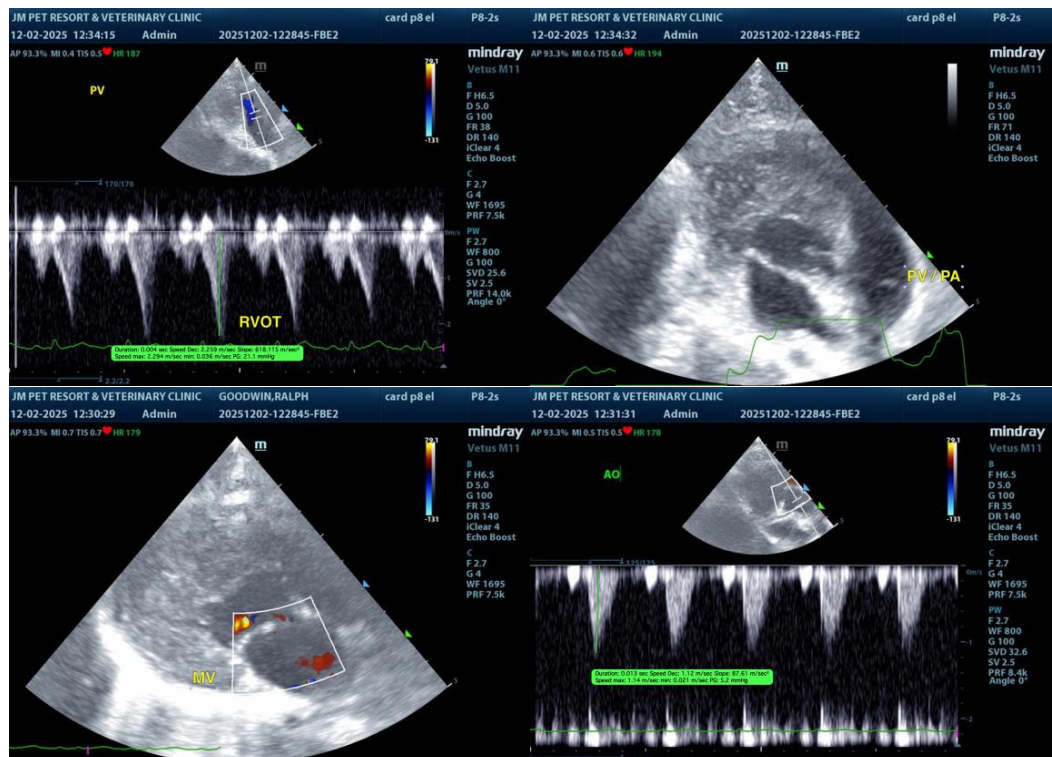
12/2/25

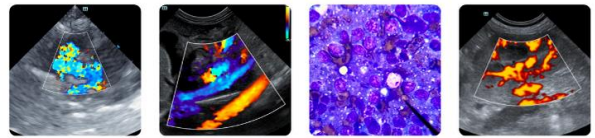
## ULTRASONOGRAPHIC FINDINGS

- Normal cardiac / function
- Mild increased measured RV outflow velocity

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The only source of the murmur is the mild increased measured RV outflow velocity, which may suggest dynamic right ventricular outflow tract obstruction, which is classified as a flow murmur. An additional small non-visualized flow abnormality is not definitively excluded. Regardless of classification, the hemodynamic effects of the murmur appear low. There is no indication for cardiac medications. There are no anesthetic contraindications if anesthesia is required. Conservative monitoring of the murmur going forward is advised. Recheck echocardiogram is recommended in 6-12 months, sooner if clinical signs arise or if there is an increase in murmur intensity.





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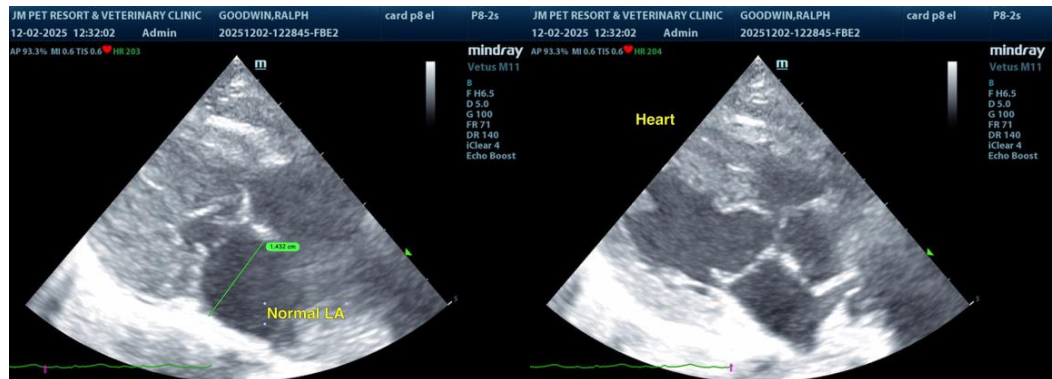
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)