



## PATIENT

Felix Heckens

## SPECIES

Feline

## BREED

DSH

## SEX

Female Spayed

## AGE

14

## WEIGHT

15

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Sharkaway

## HOSPITAL NAME

Union Vet AH

## REFERRING VET

Dr. Ray

## INVOICE

12762

## DATE

11/1/25

## PRESENTING CLINICAL SIGNS

History: Plantigrade stance on hind limbs

Abnormal PE/Chem/CBC/UA Results: HEART MURMUR GRADE 3-4/6 BW- WNL TT4-WNL

## 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	1.4	0.53	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	--	1.2	1.2		--	0.9	--
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. 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. Systolic anterior motion (SAM) of the mitral valve or significant MR noted on doppler. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. Mildly prominent remodeled papillary muscle noted. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **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. 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). No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

## ULTRASONOGRAPHIC FINDINGS

- Normal cardiac structure/function with mild LV myocardial remodeling



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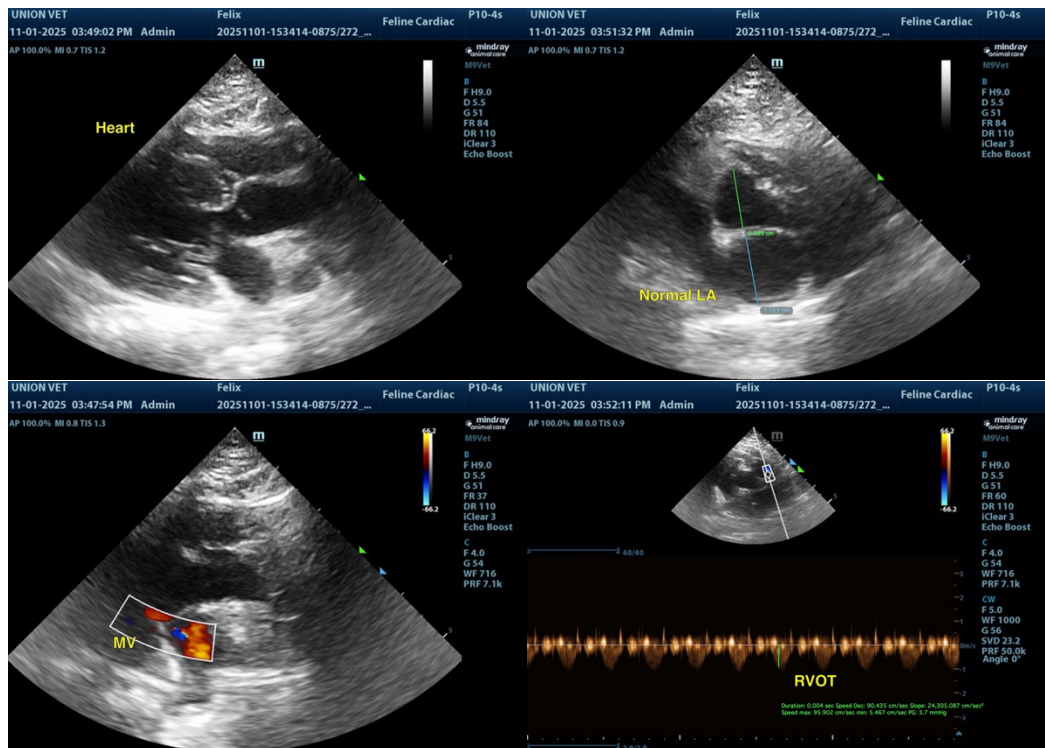
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## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of clinical issues such as left or right heart chamber enlargement, LV systolic dysfunction, HCM criteria or other structural cardiomyopathy or definitive significant valvular insufficiencies. Assuming no volume changes such as dehydration or anemia, a benign flow murmur is suspected. Although, given reported murmur grade, a non-visualized flow abnormality is not excluded. Regardless, the hemodynamic effects of the murmur appear to be low. No indication for cardiac medication. Conservative monitoring of the murmur is recommended. Recheck echo suggested in 6 months, sooner if increase in murmur intensity or if clinical signs arise. Anesthetic risk is considered 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.



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)



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