



**PATIENT**

Kuddles Hidalgo

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

16.5

**WEIGHT**

6.5

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sharkawy

**HOSPITAL NAME**

Union Vet Animal  
Hospital

**REFERRING VET**

Dr. Lara

**INVOICE**

15221

**DATE**

04/17/26

**PRESENTING CLINICAL SIGNS**

Hyperthyroidism

Abnormal PE/Chem/CBC/UA Results: Heart murmur grade 4/6

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT	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	16.5	NM	0.39	1.1	0.39	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	--	1.1	1.2	--	0.8	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. 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 on doppler. No evidence of systolic anterior motion (SAM). The **left ventricle** presented normal free wall and septal thicknesses with linear contour. 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 LV myocardial remodeling.
- Minor mitral valve insufficiency.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



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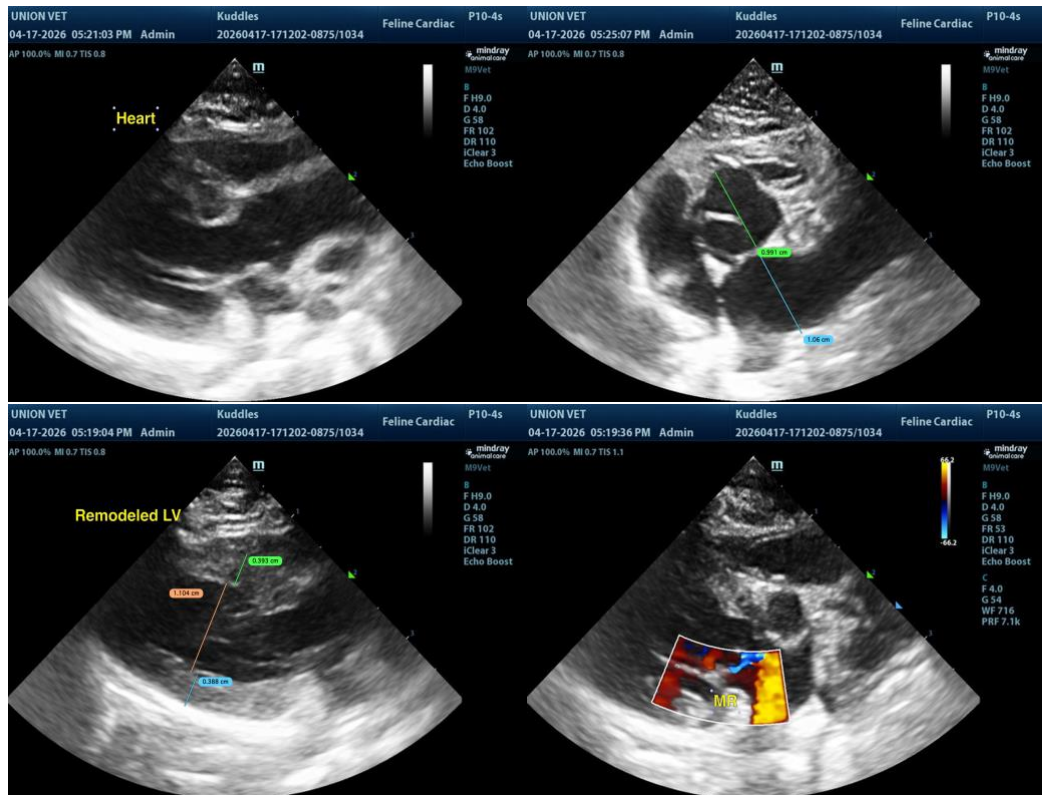
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No evidence of clinical issues such as HCM criteria, left or right heart chamber enlargement, or LV systolic dysfunction. The murmur may be associated with mitral valve insufficiency or benign flow murmur. Regardless of classification, the hemodynamic effects of the murmur appear low. No indication for cardiac medication. Conservative monitoring of the murmur going forward is advised. Recheck echo is suggested in six months, sooner if increase in murmur intensity or if clinical signs arise. Anesthetic risk is considered mild given age. 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.



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)

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