



PATIENT

Rusty Kinney

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

1 year

WEIGHT

13.4 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

AC of Elkorn

INVOICE

13229

DATE

2/1/22

PRESENTING CLINICAL SIGNS

Presented 1/31/2022 for vomiting, lethargy and limping on left rear leg. A 3-4/6 heart murmur was noted on exam. Lungs are clear.

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		179	0.60	1.3	0.54	51.5	86.5
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.23	1.21	1.4	1.1	1.2	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 left ventricular wall exhibited borderline IVS hypertrophy with normal LV free wall thickness and subjective subtle regions of myocardial irregularity. Subjectively, the IVS exhibited mild increased endocardial echogenicity with potential for minor myocardial remodeling. No overt evidence of significant papillary muscle hypertrophy was noted. The right ventricle and right atrium exhibited normal size, structure, and content. The left atrium was normal in size without evidence of dilation or spontaneous contrast. Normal RVOT velocity was present. Systolic anterior motion (SAM) of the mitral valve was present with secondary turbulent to dynamic LVOT outflow. Overt evidence of concurrent MR was not definitively evident yet possible. Minor eccentric TR was present. No other obvious valvular regurgitation was noted. There was no evidence of pericardial or pleural effusion present. No obvious cardiac tumors were noted.

ULTRASONOGRAPHIC FINDINGS

- Prominent IVS and LV free wall with borderline IVS hypertrophy
- Subjective mild thickened mitral valve with SAM
- Turbulent to dynamic LV outflow
- Minor TR



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The echocardiogram in this case is essentially consistent with hypertrophic obstructive cardiomyopathy. Given the young age of the patient, some degree of primary mitral valve dysplasia may be possible. Subtle evidence of emerging LV myocardial remodeling was present. Overall, normal cardiac functionality was noted.

Regardless of classification, the murmur is most consistent with mild dynamic LVOT obstruction and secondary turbulent to dynamic LV outflow. The TR is not likely audible and not overtly consistent with clinical pulmonary hypertension.

Without evidence of significant structural or functional cardiomyopathy, conservative monitoring at this stage would be reasonable. While no medications have been shown to definitively alter long-term outcomes, potential initiation of Atenolol 25 mg (1/4 tab) PO SID could be considered. However, sonographic monitoring is required for further prognosis and assessment of progression. No other cardiac medications were indicated. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of heart disease arise. Screening blood pressure is suggested to rule out hypertension as a potential complicating factor.

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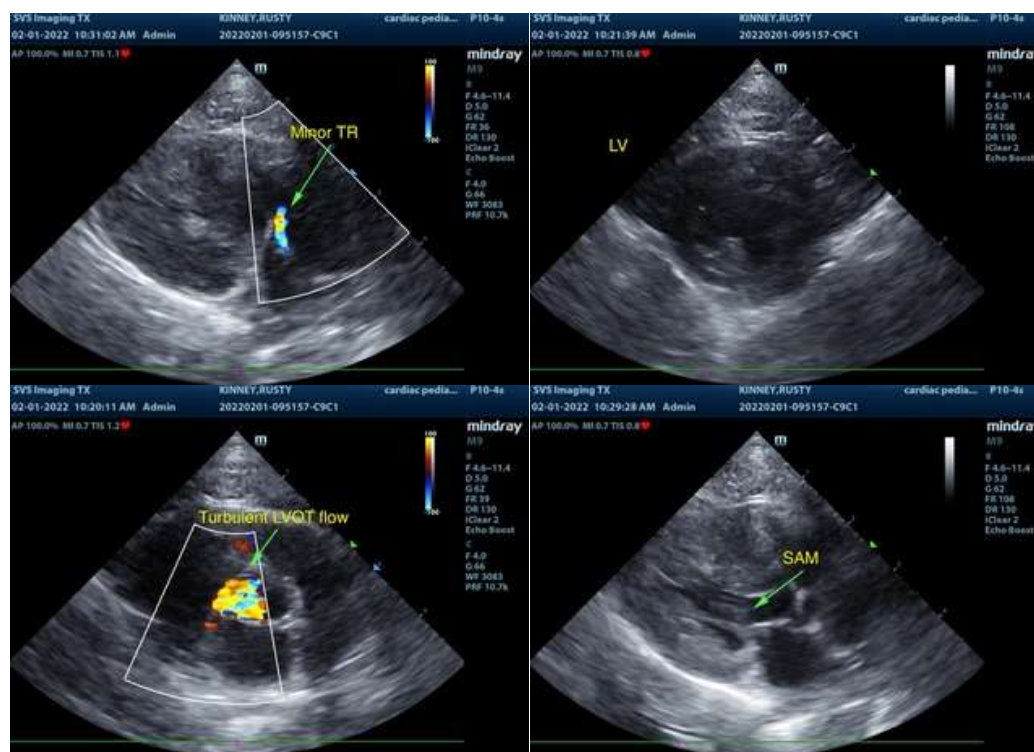
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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