


**PATIENT**

Pip Leshner

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

2 y

**WEIGHT**

15.2

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Santa Clara AH

**REFERRING VET**

Dr. Zulauf

**INVOICE**

15676

**DATE**

12/20/22

**PRESENTING CLINICAL SIGNS**

2/6 left systolic heart murmur. Radiographic Findings heart enlargement (noted at emergency clinic) waiting for files to be sent

Abnormal PE/Chem/CBC/UA Results: cbc wnl chem17 - mild hypokalemia (3.4) and mild hyponatremia (167) blood work done at emergency clinic

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>PATIENT</b>		250	0.6	1.55	0.7	50	84.5
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/)	
<b>NORMAL PARAMETER</b>	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
<b>PATIENT</b>	1.4	1.3	1.34	2.4	1.3	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 was mild to moderately hypertrophied with regions of mild myocardial irregularity. Subjective diffuse mild hyperechoic endocardium, which may potentially indicate early fibrosis and ventricular remodeling, was present. Concurrent mildly prominent to remodeled papillary muscles are noted. The right ventricle appears to be mildly affected as well without evidence of RV enlargement. Normal left atrial dimension without evidence of spontaneous contrast is noted. Normal right atrial dimension without evidence of spontaneous contrast is noted. Normal measured RVOT velocity is present. The mitral valve leaflets appear to be mildly thickened with subjective evidence of mild systolic anterior motion (SAM) of the mitral valve with mild elevated LVOT velocity and with mildly dynamic to turbulent LV outflow profile. Mild eccentric MR was present on Doppler, 4.5 m/s. No overt TR was present. No evidence of pericardial or plural effusion was noted. No cardiac tumors were noted. Subjective tachycardia is present.

**ULTRASONOGRAPHIC FINDINGS**

- Hypertrophic obstructive cardiomyopathy



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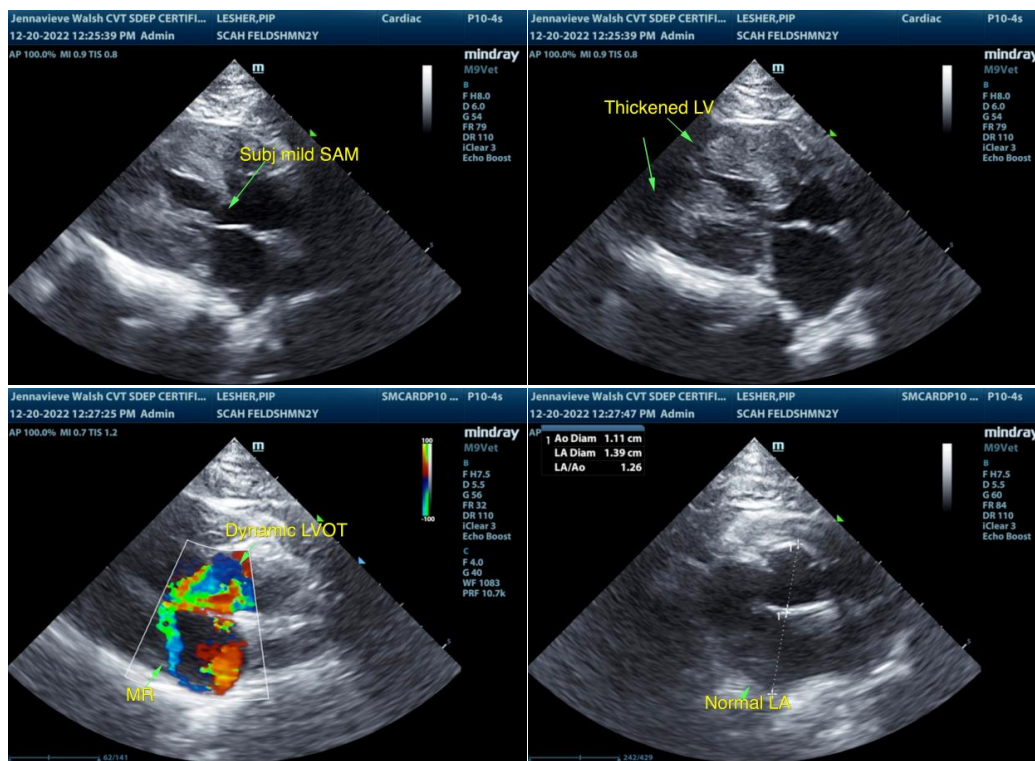
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cardiac presentation including evidence of LV mild variable hypertrophy, and dynamic LVOT obstruction secondary to SAM, is consistent with hypertrophic obstructive cardiomyopathy. Given the young age of the patient, the potential for mild mitral valve dysplasia as a contributing factor cannot be definitively excluded. Assessment of systemic BP and T4 level is suggested to rule out complicating factors as hypertrophic LV changes are the rule-out diagnosis, assuming the patient is euthyroid and normotensive.

While no medications have been shown to definitively alter long-term outcomes, given this presentation, it is reasonable to initiate Atenelol 25 mg tab (1/4 tab) PO SID initially with monitoring of heart rate (ideally stress heart rate of 140-160 BPM) 12-24 hours post-administration. Overall prognosis may be considered guarded, yet overall the heart appears to be compensated without evidence of LA dilation. Serial sonographic monitoring is recommended for further assessment. A recheck echocardiogram is suggested in 6 months to assess for progression, sooner if clinical signs arise.



**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.



**PATIENT**

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**info@SonoPath.com**

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