

**PATIENT**

Davinci Advanced  
AHC

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

1 year

**WEIGHT**

8.5 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Haenni

**INVOICE**

13857

**DATE**

10/18/21

**PRESENTING CLINICAL SIGNS**

-Tachycardia heard on routine exam.  
Abnormal PE/Chem/CBC/UA Results: ECG report from IDEXX: Heart Rate: 235 bpm, Rhythm: Sinus rhythm There are no pathologic arrhythmias noted on this ECG tracing. Right axis deviation is noted. This could represent normal patient variation or indicate myocardial disease.

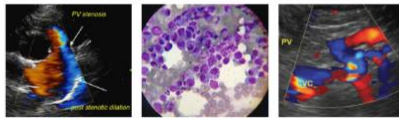
**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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>	--	233	0.6	1.55	0.6	60	94
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>	--	1.5	1.5	1.4	1.5	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 with no evidence of "smoke" or thrombi. The cranial and caudal **mitral** valve leaflets appeared mildly thickened with some eccentric insufficiency noted on Doppler. Mild systolic anterior motion of the mitral valve is suspected. The **left ventricle** presented prominent to borderline excessive free wall and septal thicknesses with hypertrophic tendency compared to normal for this species. Mild papillary muscle hypertrophy was present in the left ventricle lumen. The **myocardium** presented essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. **Contractility** of the ventricular walls was considered excessive for this patient evidenced by the elevated fractional shortening measurement. The **left ventricular outflow** tract demonstrated turbulent flow on color doppler assessment. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated linear morphology. The **right ventricle** was of normal size with normal chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter. No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The **mediastinum** was free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**



**PATIENT**

- Probable mild Hypertrophic Obstructive Cardiomyopathy (HOCM)

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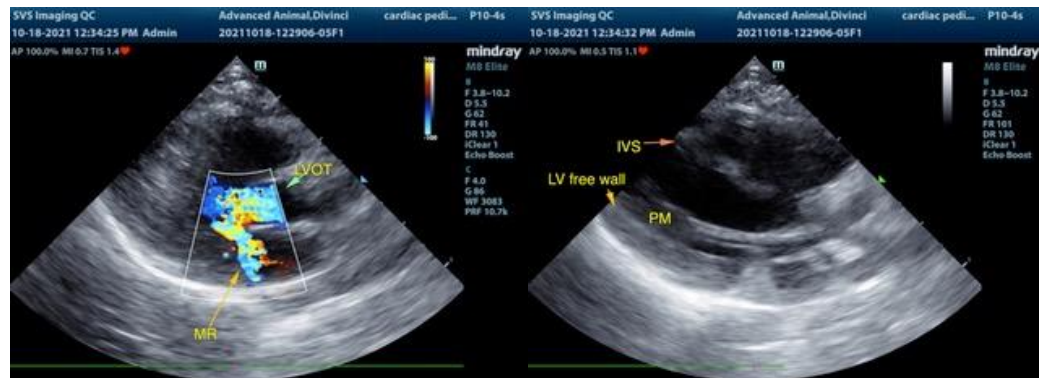
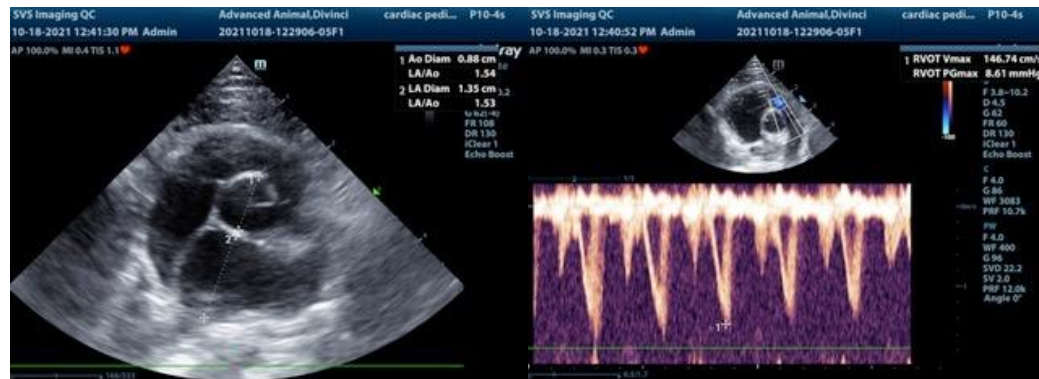
Dr. Haenni

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The study is most consistent with mild hypertrophic obstructive cardiomyopathy given the borderline to prominent IVS and LV free wall thicknesses, mild papillary muscle hypertrophy and suspected presence of systolic anterior motion of the mitral valve resulting in mild dynamic obstruction to LV outflow exhibited by turbulence on color flow doppler as well as secondary eccentric mitral valve insufficiency. Potentially, the LVOT velocity may be underestimated.

The lack of left atrium enlargement indicates that the potential for complication is low at this time and suggests well compensated current state. Given the lack of left atrium enlargement, consideration could be given to starting atenolol at 6.25 mg BID, although, conservative monitoring at this time given the lack of left atrium enlargement would also be reasonable.

Systemic blood pressure as well as assessment of T4 levels suggested to rule out hyperthyroidism (considered unlikely given the age of the patient) and systemic hypertension. Recheck echocardiogram suggested in 6 months or sooner if clinical signs consistent with heart dysfunction develop. Given the young age of the patient, a referral to a local cardiologist for further assessment and clarification should be considered.



**INVOICE**

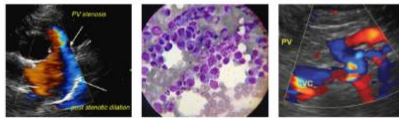
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svsmobileimaging.com 309-737-3070



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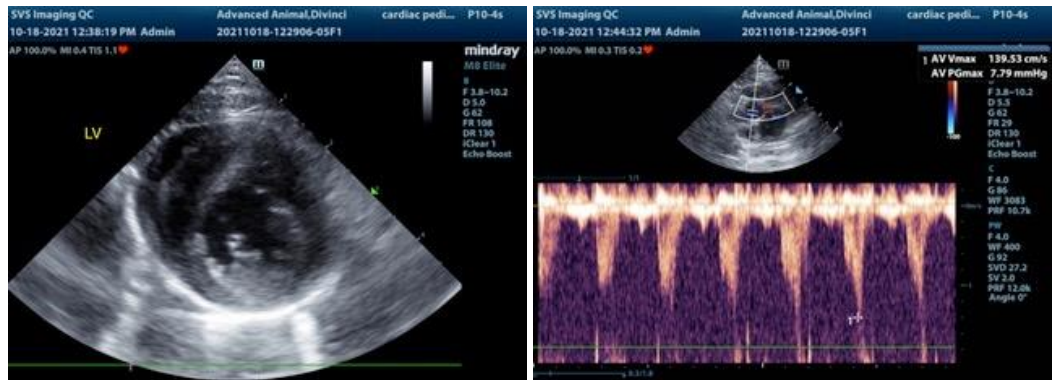
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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