



## PATIENT

Sugar Prochaska

## SPECIES

Feline

## BREED

DSH

## SEX

FS

## AGE

7 years

## WEIGHT

9 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jill Rumanchik

## HOSPITAL NAME

Clarity Imaging LLC

## REFERRING VET

Dr. Ellen Richardson

## INVOICE

15095

## DATE

10/5/22

## PRESENTING CLINICAL SIGNS

4/6 heart murmur (new) noted on annual exam; otherwise, BAR

## 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	0.53	1.34	0.38	44.8	79.5
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	1.1	1.39	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 echocardiogram in this patient demonstrated enlarged **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No overt MR was noted on Doppler. The **left ventricular** septum and free wall revealed adequate contractility and normal left ventricular volume yet some echogenic remodeling primarily of the septum with concurrent mild basilar IVS hypertrophy. The area of the basilar septal hypertrophy measured approximately 0.69 cm width. This does not appear to be a functional issue at this point without overt evidence of significant fixed LVOT obstruction. This is suggestive of some level of probable myocardial fibrosis. The **left ventricular outflow** tract demonstrated potential for mild dynamic systolic flow, yet overall normal structural integrity. The **right atrium** and auricle revealed increased size and normal content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial 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 pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

## ULTRASONOGRAPHIC FINDINGS

- Mild LV myocardial remodeling with subjective mild basilar IVS hypertrophy
- Normal left atrium



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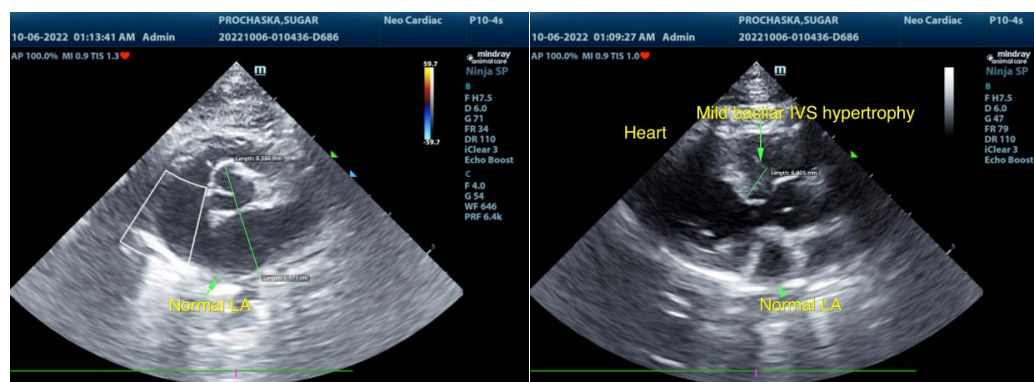
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Overall, the heart exhibited normal functionality without evidence of left or right heart chamber enlargement. A definitive cause of the murmur was not obvious with potential for flow-murmur possibly secondary to aforementioned mild basilar septal hypertrophy and secondary mild dynamic to turbulent LV outflow. No other additional issues such as LV systolic dysfunction, clinical pulmonary hypertension, or overt or significant additional valvular insufficiencies were noted. Potentially, the LV myocardial changes may indicate an atypical form of HCM, which would be a rule-out diagnosis assuming the patient is euthyroid and normotensive.

No indication for cardiac medications at this stage, as the hemodynamic effects of the murmur appear to be low. Assessment of T4 levels and systemic BP is suggested if not done. Conservative monitoring of the murmur at this stage would be appropriate. Recheck echocardiogram is suggested in 6 months, 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.

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