



**PATIENT**

Izzie Brogren

**SPECIES**

Feline

**BREED**

DSH

**SEX**

SF

**AGE**

8 years

**WEIGHT**

11.4 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. Amy Brogren

**INVOICE**

12848

**DATE**

12/17/21

**PRESENTING CLINICAL SIGNS**

Adopted 1 week ago - no cough or respiratory issues. Hematuria  
Abnormal PE/Chem/CBC/UA Results: Wellness exam revealed grade 4-5/6 murmur, regular rate/rhythm. Thoracic radiographs - cardiomegaly. Abdominal radiographs - uroliths present. ProBNP 178 (0-100), SDMA 17 (0-14), Phos 2.7 (2.9-6.3), TP 6.1 (6.3-8.8), Urine SG 1.045, Hematuria, Pyuria, Crystalluria (struvite). Rest of TT4, Free T4, CBC, rest of Chem - wnl

**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		232	0.65	1.37	0.6	46.5	81.4
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	1.6	1.57	1.2	4.5	1.0	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 is borderline to mildly hypertrophied with regions of irregularity. Sectorial mild basilar IVS hypertrophy was present. Diffuse, mildly hyperechoic endocardium suggestive of fibrosis and ventricular remodeling was present. Mild to moderate papillary muscle hypertrophy with regions of remodeling were also noted. The right ventricle is mildly affected as well, without evidence of increased right ventricle dimension. The left atrium was normal in size without evidence of spontaneous contrast. The right atrium was normal in size without evidence of spontaneous contrast. Normal laminar flow was present in the pulmonary artery. Color doppler assessment in the area of the aorta revealed turbulent systolic flow along with concurrent minor mitral valve insufficiency. The mitral valve insufficiency was primarily eccentric. No overt evidence of tricuspid valve insufficiency or other evidence of valvular insufficiency was noted. No evidence of pericardial or pleural free fluid was noted. The area of the cranial mediastinum and pericardial regions were free of overt masses in the visible window.



**PATIENT**

Izzie Brogren

**SPECIES**

Feline

**BREED**

DSH

**SEX**

SF

**AGE**

8 years

**WEIGHT**

11.4 lbs.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- IVS and LV free wall myocardial remodeling with borderline generalized to sectorial basilar IVS hypertrophy
- Turbulent systolic LVOT flow
- Minor MR
- Suspect concurrent systolic anterior motion of the mitral valve

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur in this patient is likely owing to turbulent systolic LV outflow, suspected to be secondary to both fixed (sectorial basilar IVS hypertrophy), as well as potential dynamic (SAM) LVOT obstruction. This is likely suggestive of some form of potential chronic hypertrophic obstructive cardiomyopathy. The lack of significant left atrium dilation indicates that the risk of complication is relatively low at this time.

Given the elevated LVOT velocity and if persistent tachycardia, Atenolol 25.0 mg (1/4 tab) SID with target heart rate of 140-160 BPM could be considered. No other indication for additional cardiac medications. Screening blood pressure and T4 levels is suggested if not recently done. Recheck echocardiogram is suggested in 6 months to assess for progression, sooner if clinical issues arise.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

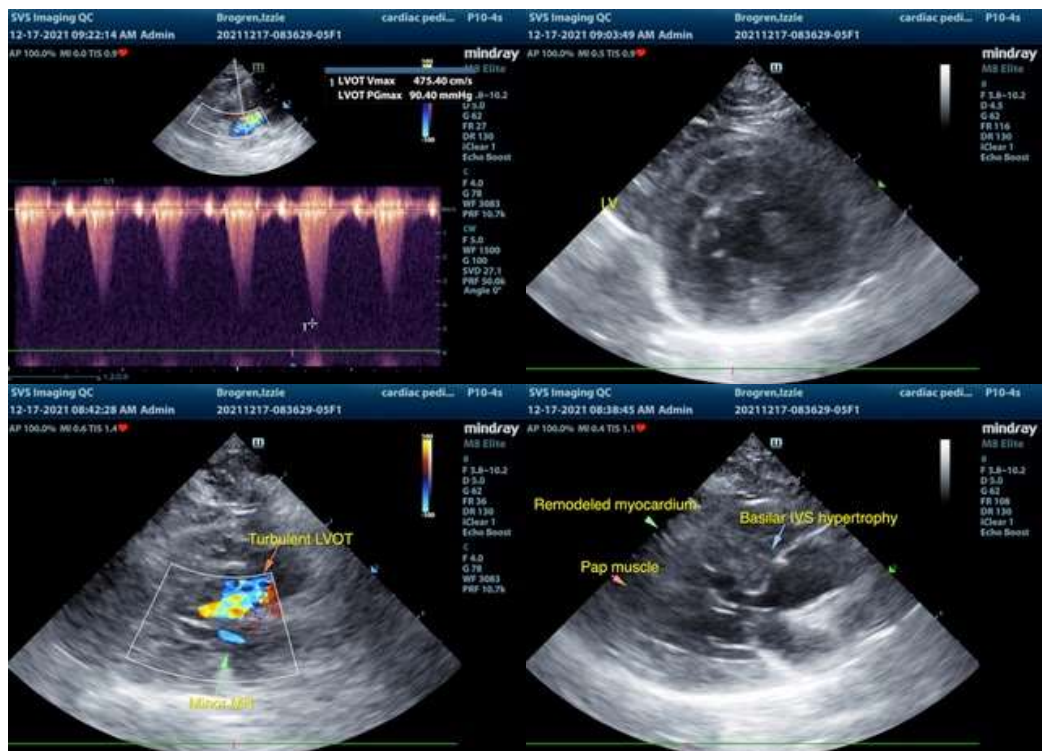
Dr. Amy Brogren

**INVOICE**

12848

**DATE**

12/17/21



IMAGING PERFORMED BY

svsmedicalimaging.com 309-337-3070



**PATIENT**

Izzie Brogren

**SPECIES**

Feline

**BREED**

DSH

**SEX**

SF

**AGE**

8 years

**WEIGHT**

11.4 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. Amy Brogren

**INVOICE**

12848

**DATE**

12/17/21



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