



## PATIENT

Teena Blake

## SPECIES

Feline

## BREED

DSH

## SEX

FS

## AGE

13 years

## WEIGHT

8.4 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Dr. Meredith Swart

## HOSPITAL NAME

Swart Veterinary  
Imaging

## REFERRING VET

Dr. Meredith Swart

## INVOICE

13145

## DATE

1/25/22

## PRESENTING CLINICAL SIGNS

recent history of staggering and seemed disoriented. rDVM reported clinical signs resolved even prior to appt. New murmur (reported as grade I-2) was auscultated. Elected echo to r/o heart disease.

Abnormal PE/Chem/CBC/UA Results: IRIS stage II CKD creat 2.5, otherwise WNL, T4 was checked and was normal at 2.7, FT4 normal at 27

## 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>		NM	0.5	1.38	0.5	60.6	95
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	1.4	1.3	1.0	0.9	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 based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and 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.



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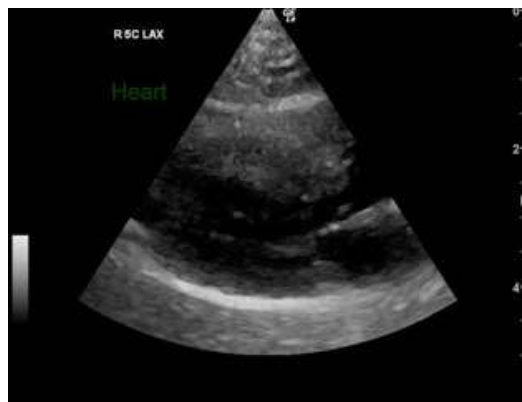
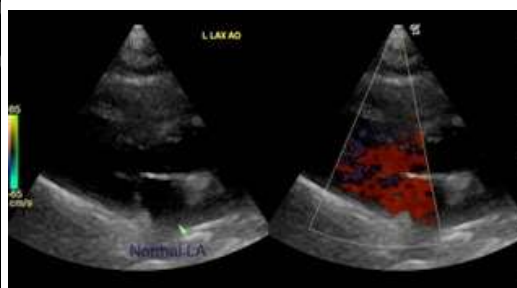
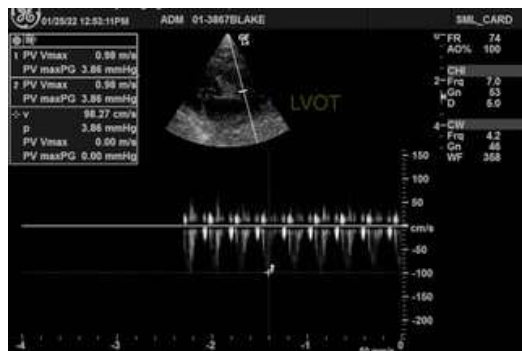
## ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function
- Normal LA

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy was present in this study. A definitive cause of the low-grade murmur was not overtly evident. Assuming no evidence of volume changes (dehydration), or anemia, a benign physiological flow murmur potentially audible at elevated hear rates or small flow abnormality not visualized here are possible. Regardless, the lack of left or right heart chamber enlargement indicates that the current risk secondary to the murmur is low. Likewise, the lack of left atrium enlargement was not overtly consistent with a thromboembolic event.

No indication for cardiac medications was evident. Conservative monitoring of the low-grade murmur at this stage would be appropriate. ECG assessment may be considered to rule out potential arrhythmogenic disease (arrhythmia not noted in this study). Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of heart disease arise or if murmur intensity progresses.



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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Teena Blake

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**

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