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Clinical Sonography & Telecytology
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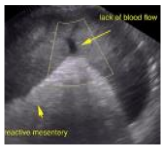
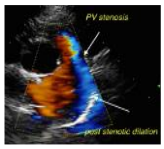
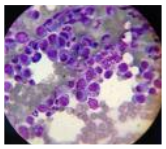
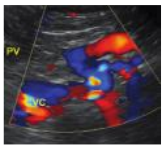

SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**
Tilda Webb

**SPECIES**
Feline

**BREED**
DSH

**SEX**
FS

**AGE**
17

**WEIGHT**
9lb

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

**IMAGING PERFORMED BY**
Sorbo

**HOSPITAL NAME**
Mill Brook AC VBF

**REFERRING VET**
Jeffers

**INVOICE**
13564ag

**DATE**
04/24/2023

## PRESENTING CLINICAL SIGNS

Murmur, gallop, irregular rate auscultated. Yowling at night. Wt. loss. Ravenous appetite. Wt. loss 0.5-0.7lbs in 1 year.

Abnormal PE/Chem/CBC/UA Results: Creat 2.7, BUN 45, SDMA 16.1, USG 1.015, t4 2.5, fT4 42.5 (normal).

## 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 | 0.42 | 1.45 | 0.37 | 55 | 86 |
| **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** | | 1.25 | 1.2 | | 1.0 | 0.9 | |
| Adapted from June Boon,Veterinary Echocardiography,1998<br>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 present on Doppler. The left ventricular septum and free wall revealed normal thicknesses, reduced contractility and mildly reduced left ventricular volume with subjective reduced diastolic filling. Normal measured LVOT velocity was present. Some echogenic remodeling of the septum and free wall was present. This is most consistent with some level of myocardial fibrosis. The left ventricular outflow tract demonstrated normal laminar flow and subjective 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. No overt TR was present on Doppler. 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). Normal measured RVOT velocity was present. 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

- Normal LV volume with LV myocardial remodeling, normal/adequate LV function.
- Normal LA.
- Normal RA/RV.

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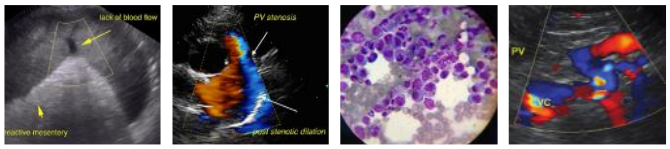


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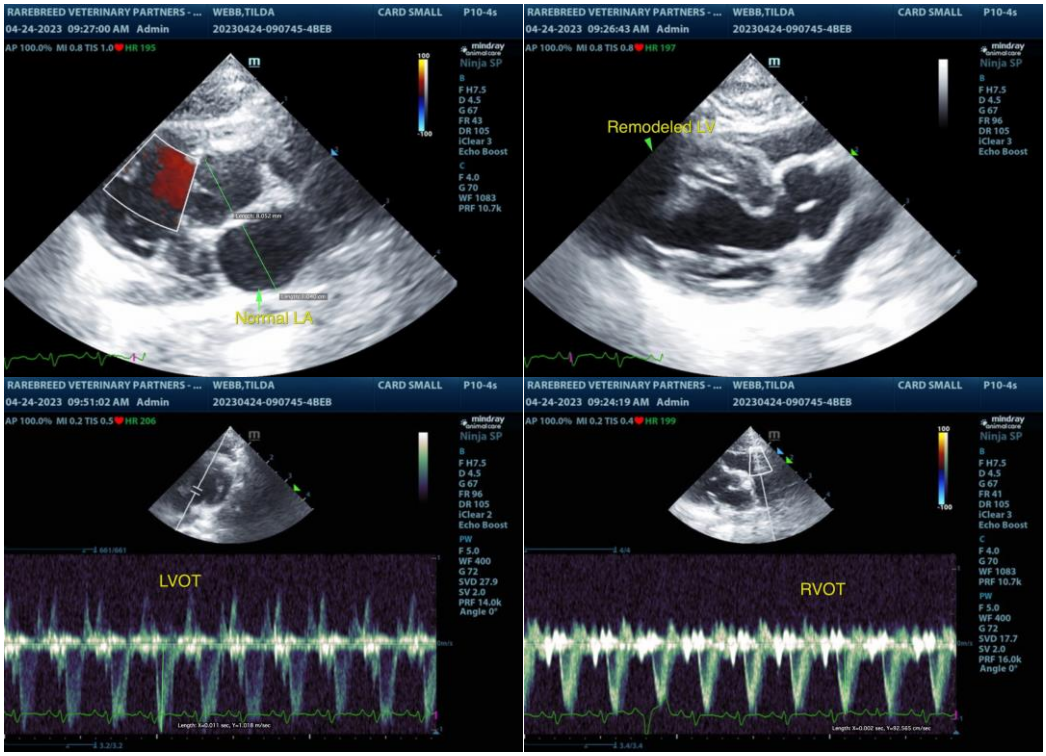
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of significant structural or functional cardiomyopathy was present in this study including no evidence of HCM criteria, overt or significant valvular insufficiencies, LV systolic dysfunction or left/right cardiomegaly.

If no volume changes such as dehydration or anemia are present, a benign physiologic flow murmur or small non-visualized flow abnormality cannot be excluded. Regardless, the lack of left or right heart chamber enlargement indicate that the hemodynamic effects of the murmur are minimal. No indication for cardiac medications.

ECG assessment is recommended if persistent gallop rhythm/irregular HR. Continued conservative monitoring of the murmur is recommended. Recheck echocardiogram recommended in 6 months, sooner if murmur intensity increases or clinical signs suggestive of heart disease 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)**
mac.daniel@sonopath.com