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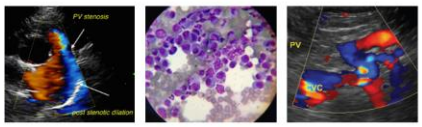

SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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

**PATIENT**

Bazooka Sparrow

**SPECIES**

Feline

**BREED**

DSH

**SEX**

SF

**AGE**

4 years

**WEIGHT**

8.14 pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sarah Pender CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Jessica Fishbaugher

**INVOICE**

10488ag

**DATE**

04/29/2022

## PRESENTING CLINICAL SIGNS

History: Asymptomatic Heart murmur found on pre dental exam

Abnormal PE/Chem/CBC/UA Results: Grade 4-5/6 murmur louder on right Blood Pressure Measurement: 112/81 (91) 117/83 (94) 113/81 (92)

## 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 | | 166 | 0.35 | 1.36 | 0.35 | 63.8 | 93.9 |
| **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 | | 1.5 | 1.2 | | 1.1 | 1.6 | 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 2 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 moderate to severe increased size with mild bulbous presentation with anechoic content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated subjective maintained linear morphology and kinetics. Mild TR was present on color Doppler. The right ventricle exhibited moderate to severe increased size compared to the left ventricle without evidence of free wall myocardial hypertrophy and normal myocardial echogenicity. Pulmonic tract assessment revealed potential for abnormal valve structure, turbulent to dynamic systolic outflow and subjective mild increased diameter compared to the aorta. Color Doppler assessment revealed mild PI. 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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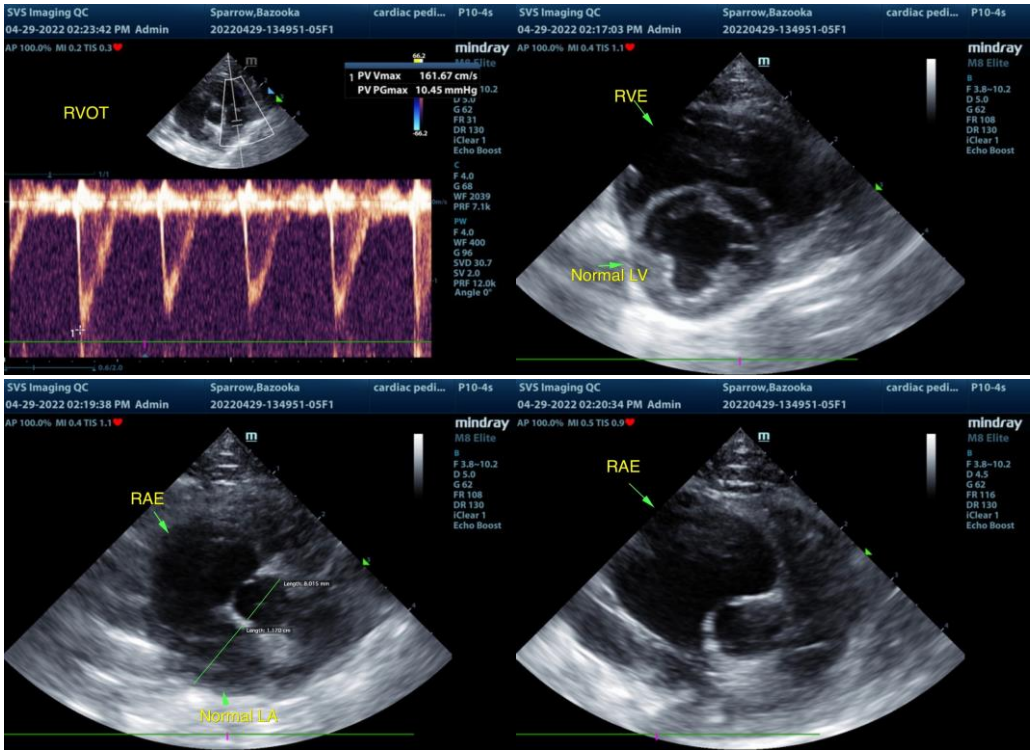
## ULTRASONOGRAPHIC FINDINGS

- Moderate to severe RA/RV enlargement
- Mild TR
- Dynamic to turbulent RV outflow with concurrent mild PV insufficiency
- Normal LA/LV

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The primary finding is the moderate to severe RA/RV enlargement. Concurrent mildly elevated RVOT along with turbulent to dynamic RV outflow pattern may suggest some degree of mild pulmonic stenosis. Potentially an additional consideration may include arrhythmogenic right ventricular cardiomyopathy given the degree of RA and RV enlargement. The possibility of a small shunt cannot be excluded although shunts typically result in left heart enlargement. This patient is at elevated risk of RHF, potential development of malignant arrythmias if not currently present and potentially pulmonary hypertension. Anesthetic risk is elevated and is not advised at this stage under further assessment including cardiology referral is performed. ECG assessment is recommended to rule out underlying arrhythmogenic disease. Referral to a cardiologist is strongly recommended.



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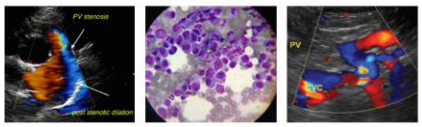

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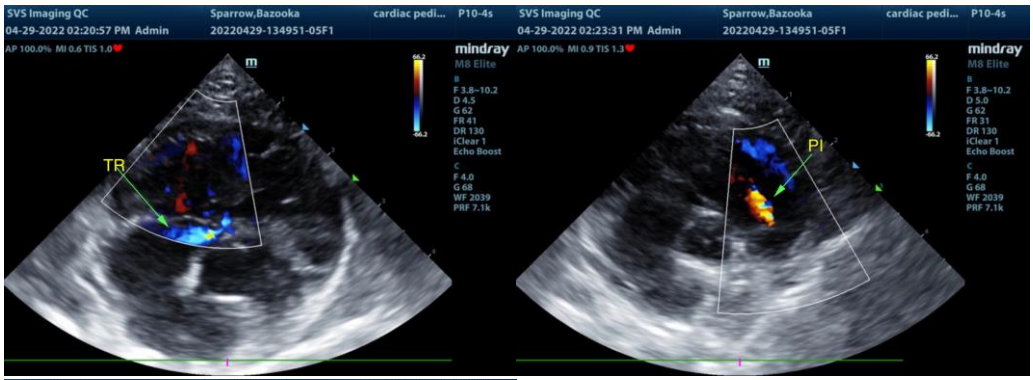


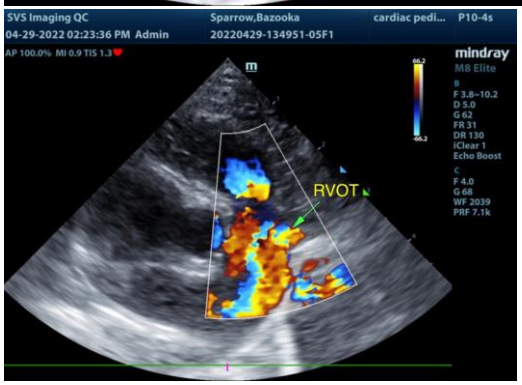


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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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)**

**info@SonoPath.com**