

PATIENT PRESENTING CLINICAL SIGNS

Squirt Cummings History: Tachycardic heart rate of 170bpm

SPECIES Abnormal PE/Chem/CBC/UA Results: Creatine 1.5mg/dL Blood Pressure Measurements 144 / 101 118

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

BREED

Cocker Spaniel

SEX

Neutered Male

AGE

7 Years

WEIGHT

66 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

H & H Veterinary Care

REFERRING VET

Dr. Henery

INVOICE

14837

DATE

4/21/22

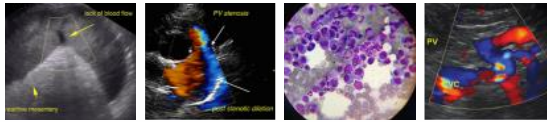
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	--	--	NM	1.42	17.4	35.8	0.65
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	>170	1.0	1.2	--	4.3	4.8	--

Cardiac Presentation

The echocardiogram in this patient demonstrated mildly enlarged **left atrial** size based on 2 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Mild eccentric MR present on doppler. The **left ventricle** presented normal thicknesses with linear contour with mild increased ventricular volume. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was subnormal as evidenced by the fractional shortening measurement and subjective evaluation of the different regions 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Minor TR present on color doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window. Significant consistent tachyarrhythmia was present.

ULTRASONOGRAPHIC FINDINGS

- Consistent, subjectively severe tachyarrhythmia
- Mild LA/LV enlargement



PATIENT

- Mild MR/TR

Squirt Cummings

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SPECIES

The primary finding in this study is the consistent and significant tachyarrhythmia, which is suspected to be supraventricular in origin. Tachyarrhythmias may be primary in nature or develop secondary to structural cardiac disease, fibrosis, myocarditis or other. Potentially, extracardiac disease, such as neoplasia, splenic or gastrointestinal disease can also contribute. This arrhythmia puts the patient at high risk for acute decompensation and, when sustained, may result in tachycardia induced cardiomyopathy with secondary right sided congestion. No evidence of hepatic congestion or ascites was present at this time.

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Given this presentation, ECG assessment for further definition of the tachyarrhythmia is recommended (pending cardiologist ECG interpretation). Likewise, assessment of potential concurrent structural cardiomyopathy is limited and cannot be commented on until conversion to sinus rhythm is achieved. Referral for hospitalization and rhythm conversion is likely ideal. If declined or not possible, in the face of the significant tachyarrhythmia, empirical sotalol with initial loading dose of 60 mg followed by 30 mg PO BID may be considered, pending cardiology ECG assessment.

Neutered Male

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Once rhythm is stabilized, recheck echocardiogram recommended in 2-3 months for further assessment of potential concurrent structural disease.

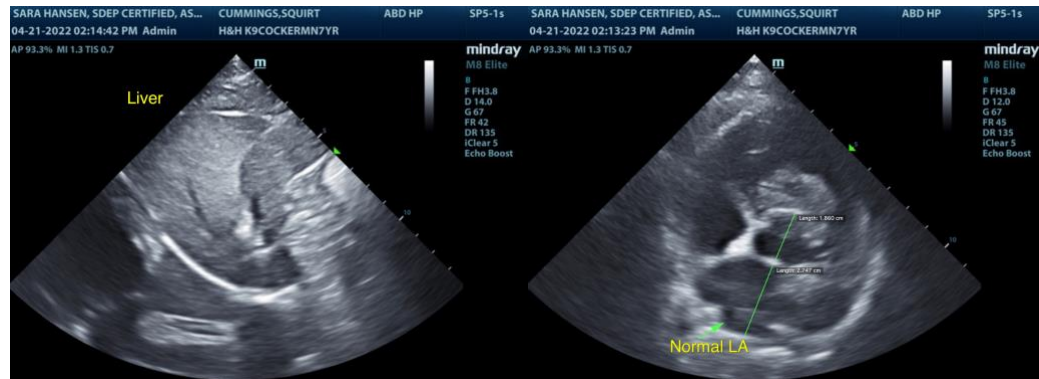
WEIGHT

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Overall, prognosis is very guarded, as this patient will always be at risk for recurrent arrhythmias, potential CHF and/or possible sudden death going forward.

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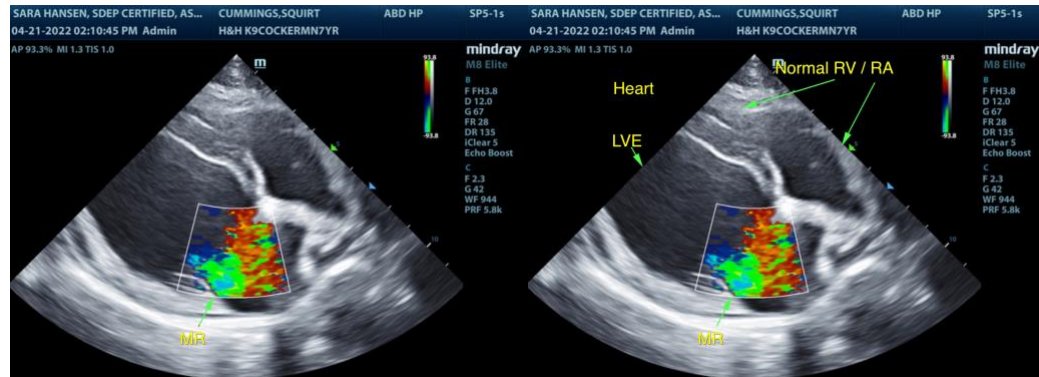


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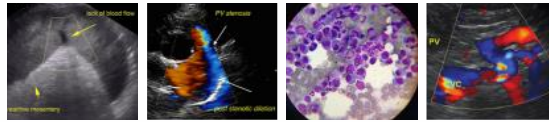
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The information and recommendations provided are based on the images presented by the referring



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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.

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info@SonoPath.com