


**PATIENT PRESENTING CLINICAL SIGNS**

Emmeline Michel

History: Heart murmur seems to be worsening. No meds. Previous echo 4/2021.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**SPECIES**

Canine

**BREED**

Coton De Tulear

**SEX**

FS

**AGE**

10 years

**WEIGHT**

9.6 lbs

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		1.2		1.1	45.4	79.9	0.19
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	218	1.2	1.4		2.2	2.2	

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal left atrial size based on 3 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. The left ventricle presented 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 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. Previously noted mildly thickened tricuspid valve leaflets with mild TR present on 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. Consistent to potential intermittent tachycardia was present.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

The Maples AH

**REFERRING VET**

Dr. Kazienko

**ULTRASONOGRAPHIC FINDINGS**
**INVOICE**

10577ag

**DATE**

05/11/2022

- Overtly normal cardiac structure-no evidence of left or right heart chamber enlargement or volume overload
- Mild TR-estimated pulmonary pressure gradient not consistent with clinical pulmonary hypertension
- Tachycardia



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Essential static cardiac structural presentation without clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. The primary finding in this case is the tachycardia. The etiology of the tachycardia is unknown with potential contributions secondary to stress or excitement, however if persistent further investigation including ECG or Holter monitor is strongly recommended. An obvious cause of the progressive murmur was not definitively evident without evidence of significant valvular insufficiencies or obvious stenotic disease. A physiological flow murmur potentially secondary to tachycardia may be present. No indication for cardiac medications used to treat structural cardiomyopathy. Any potential therapy would be based on further assessment of the tachycardia. Cardiology ECG consult is strongly suggested if persistent tachycardia or tachyarrhythmia.

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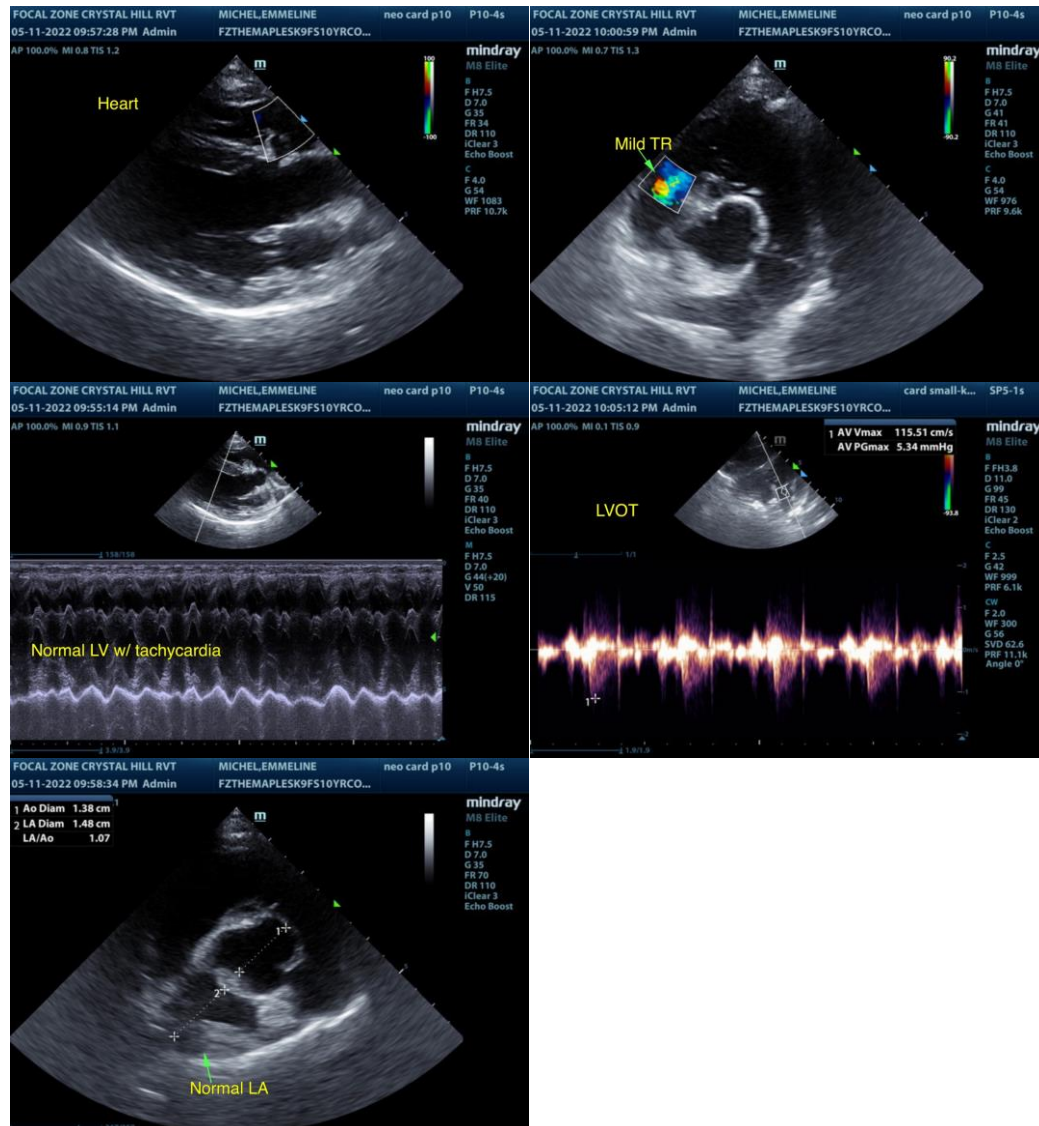
Dr. Kazienko

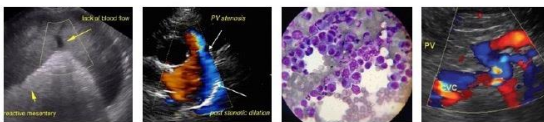
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**PATIENT**

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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.

**SPECIES**

Canine

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](mailto:info@SonoPath.com)

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