



**PATIENT PRESENTING CLINICAL SIGNS**

Rosie Lotz History: New heart murmur detected at visit Nov 21, recheck in December 2021 showed increased intensity to grade 2/6/. Assess for anesthetic risk for GA and dental surgery. No current meds.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Canine

**BREED**

Retriever X

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

27 kg

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	<1.6	28-40	40-100	<0.6
PATIENT	--	2.5	NM	1.0	38.2	71.9	0.30
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	BELOW	BELOW	BELOW	BELOW
PATIENT	111	1.7	1.4	--	3.5	3.4	--

*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. Color doppler assessment revealed mild MR. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. Color doppler assessment revealed mild TR. 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.

**ULTRASONOGRAPHIC FINDINGS**

- Overtly normal cardiac structure and function
- Mild MR/TR

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of structural or functional cardiomyopathy without an obvious cause of the low-grade murmur definitively evident. Mild MR and TR were present yet not suspected to be audible. In the absence of volume changes (such as dehydration or anemia) potential for a physiologic or flow murmur

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

New Hamburg VC

**REFERRING VET**

Dr. Findlater

**INVOICE**

13490

**DATE**

1/18/22



**PATIENT**

Rosie Lotz

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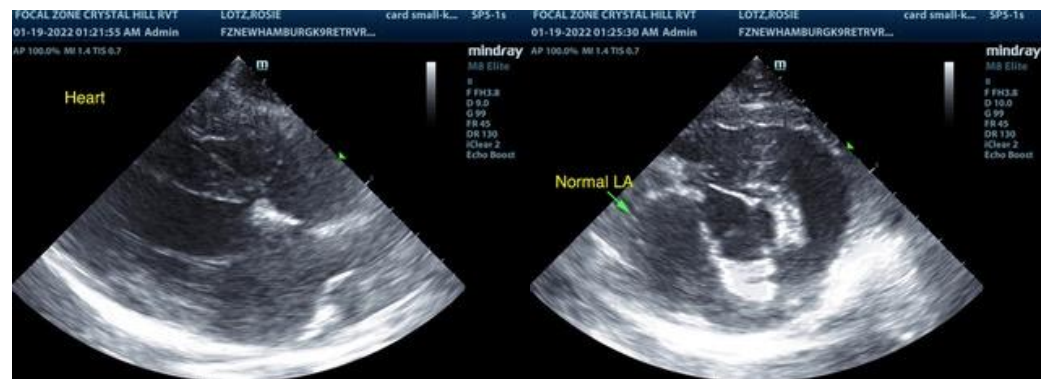
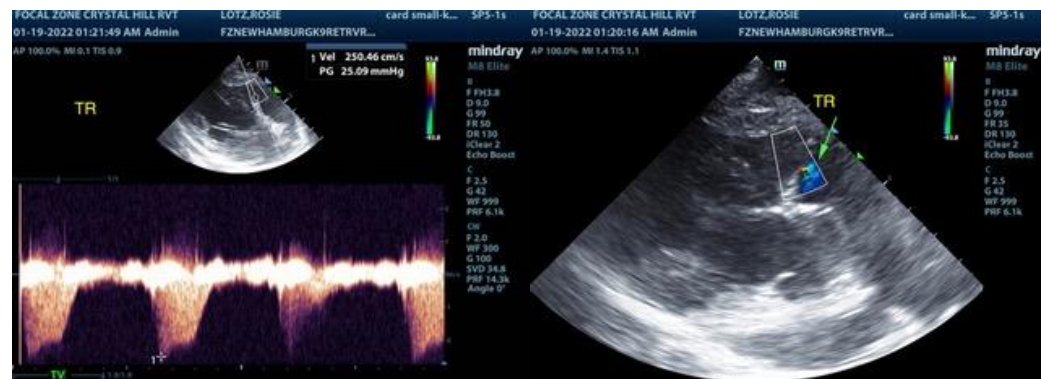
**DATE**

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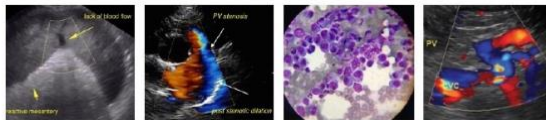
potentially present at elevated heart rates or small flow abnormality (not seen here) possible. No other clinical issues (such as systolic dysfunction) were present, while the estimated pulmonary pressure gradient, based on TR velocity was not consistent with clinical pulmonary hypertension. Conservative monitoring of the murmur would be appropriate at this time without indication for cardiac medications. No anesthetic contraindications based on the study. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

<https://www.antechdiagnostics.com/cadet-braf>

Recheck echocardiogram suggested in 6 months or 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. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



**PATIENT**

Rosie Lotz

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.

**SPECIES**

Canine

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