



**PATIENT PRESENTING CLINICAL SIGNS**

Nike Stire History: Grade 3/6 heart murmur and needs to undergo GA for Cystotomy tomorrow. Can be aggressive. Was given Trazodone 2 hours prior to scan. No other meds

**SPECIES** Abnormal PE/Chem/CBC/UA Results: WNL

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Chihuahua

**SEX**

Neutered Male

**AGE**

11 Years

**WEIGHT**

3.4 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)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
<b>PATIENT</b>	6.0	--	NM	1.15	44.1	77.5	0.15
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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>	179	1.2	1.0	--	2.5	2.43	--

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

Beatties PH Stoney Creek

**REFERRING VET**

Dr. Baskin

**INVOICE**

17407

**DATE**

9/22/22

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric insufficiency. Borderline increased MR velocity. The **left ventricle** presented normal in thickness 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 or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology. 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). No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B-1)



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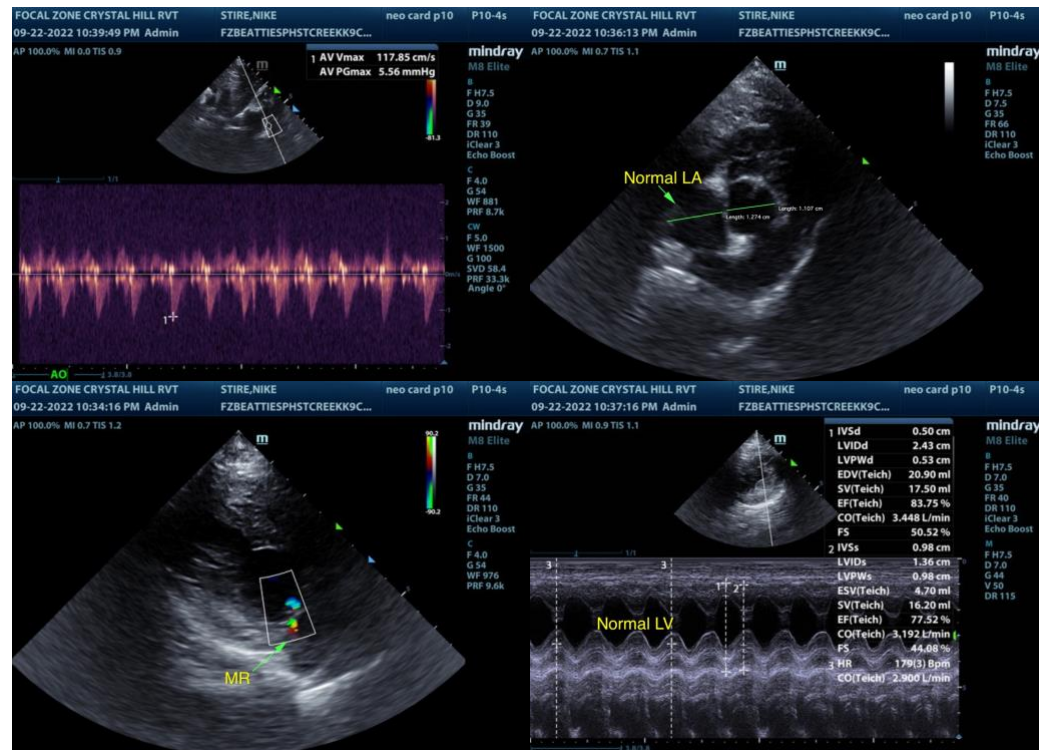
9/22/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is consistent with chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. No other clinical issues, such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. The lack of left atrial enlargement implies that the risk of complication at this stage secondary to mitral valve insufficiency is low. In a nonclinical patient without evidence of chamber enlargement, no overt indication for medical therapy at this stage. However, prognosis is highly variable and serial sonographic monitoring is recommended. No overt anesthetic contraindications, assuming normal blood pressure. Recheck echocardiogram is recommended in 6-12 months or sooner if clinical signs arise. The following anesthetic protocol is suggested.

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.

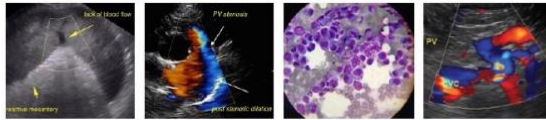
<https://www.antechdiagnostics.com/cadet-braf>



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.

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



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