



**PATIENT PRESENTING CLINICAL SIGNS**

Quinn Kazienko Increased sleepiness noted, no coughing and no meds currently. Left heart grade 4-5/6 heart murmur noted with slight bang and right side grade 2-3/6 murmur noted.

**SPECIES** Abnormal PE/Chem/CBC/UA Results: n/a

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Papillion

**SEX**

MN

**AGE**

16 years

**WEIGHT**

9.4 lbs.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP

**IMAGING PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

The Maples AH

**REFERRING VET**

Dr. Kazienko

**INVOICE**

12913

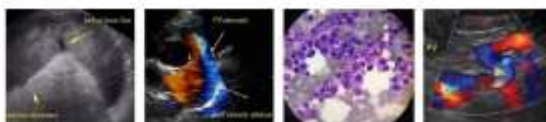
**DATE**

12/29/21

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	--	<2.0	--	1.5	50	85	0.25
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	104	1.3	0.84		2.68	2.2	

**Cardiac Presentation**

The echocardiogram in this patient demonstrated mildly enlarged **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 eccentric insufficiency. 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 or chamber overload. **Tricuspid** valvular assessment demonstrated concurrent subtle vegetative thickening with minor insufficiency present on color doppler assessment. 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.



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**ULTRASONOGRAPHIC FINDINGS**

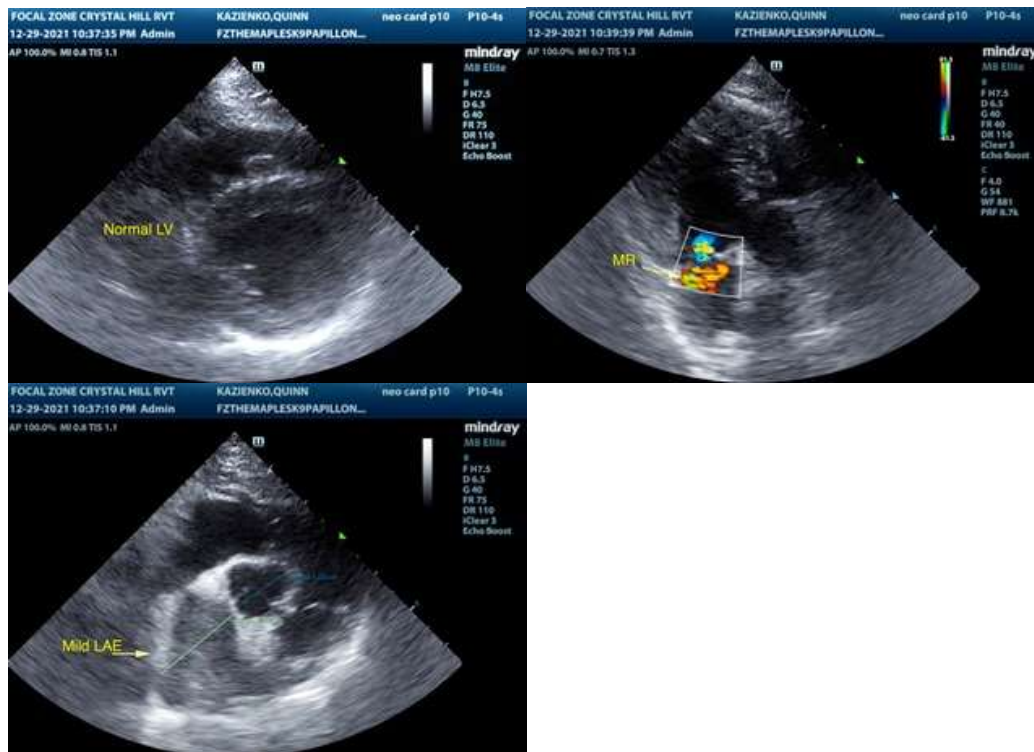
**Primary Findings**

- Chronic mitral valve disease (ACVIM B1-early B2)
- Minor tricuspid valve insufficiency - estimated pulmonary pressure gradient not overtly consistent with clinical pulmonary hypertension

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is primarily secondary to chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. Mild TR is also present yet not considered clinically significant. No other clinical issues such as systolic dysfunction or valvular stenotic disease were present. In a non-clinical patient without evidence of significant left or right heart chamber enlargement, cardiac medications are not specifically indicated.

Conservative monitoring at this time is recommended. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of heart disease develop.





**PATIENT**

Quinn Kazienko

**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.**

**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.

**BREED**

Papillion

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**  
**info@SonoPath.com**

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