


**PATIENT**

Snuffy Tran

**PRESENTING CLINICAL SIGNS**

Gr 5/6 murmur. Cough +++. Cardiomegaly with perihilar edema.

**SPECIES**

Canine

**BREED**

Bichon/Shih Tzu Mix

**SEX**

MN

**AGE**

14yr

**WEIGHT**

6.8kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dave Stasiuk

**HOSPITAL NAME**

 Falconridge Animal  
 Hospital

**REFERRING VET**

Dr. Rix

**INVOICE**

13002ag

**DATE**

02/17/2023

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

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				1.33	54	87	0.1
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	NM	1.1	1.1		2.2	2.4	

**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 moderate thickening consistent with endocardiosis. Doppler indicated moderate 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 mild thickening with subjective mild TR on Doppler. 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**

- Compensated chronic mitral valve disease (ACVIM B1)
- Subjective mild TR with normal RA size-no evidence of clinical pulmonary hypertension

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is secondary to chronic degenerative valvular changes with secondary primary eccentric MR and subjective mild TR. The lack of left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is relatively low at this time and clinical signs associated with MR are not anticipated. Given the lack of evidence of clinical pulmonary hypertension



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and without additional issues such as left/right heart chamber enlargement or LV systolic dysfunction the cardiac presentation was not consistent with definitive cardiogenic cough. Assessment for possible primary lower airway disease is indicated. No overt indication for cardiac medications. As needed respiratory support is suggested. Prognosis is highly variable and serial sonographic monitoring is recommended with a recheck echocardiogram in 6 months, sooner if evidence of left sided heart disease or potential progressive pulmonary hypertension are noted.

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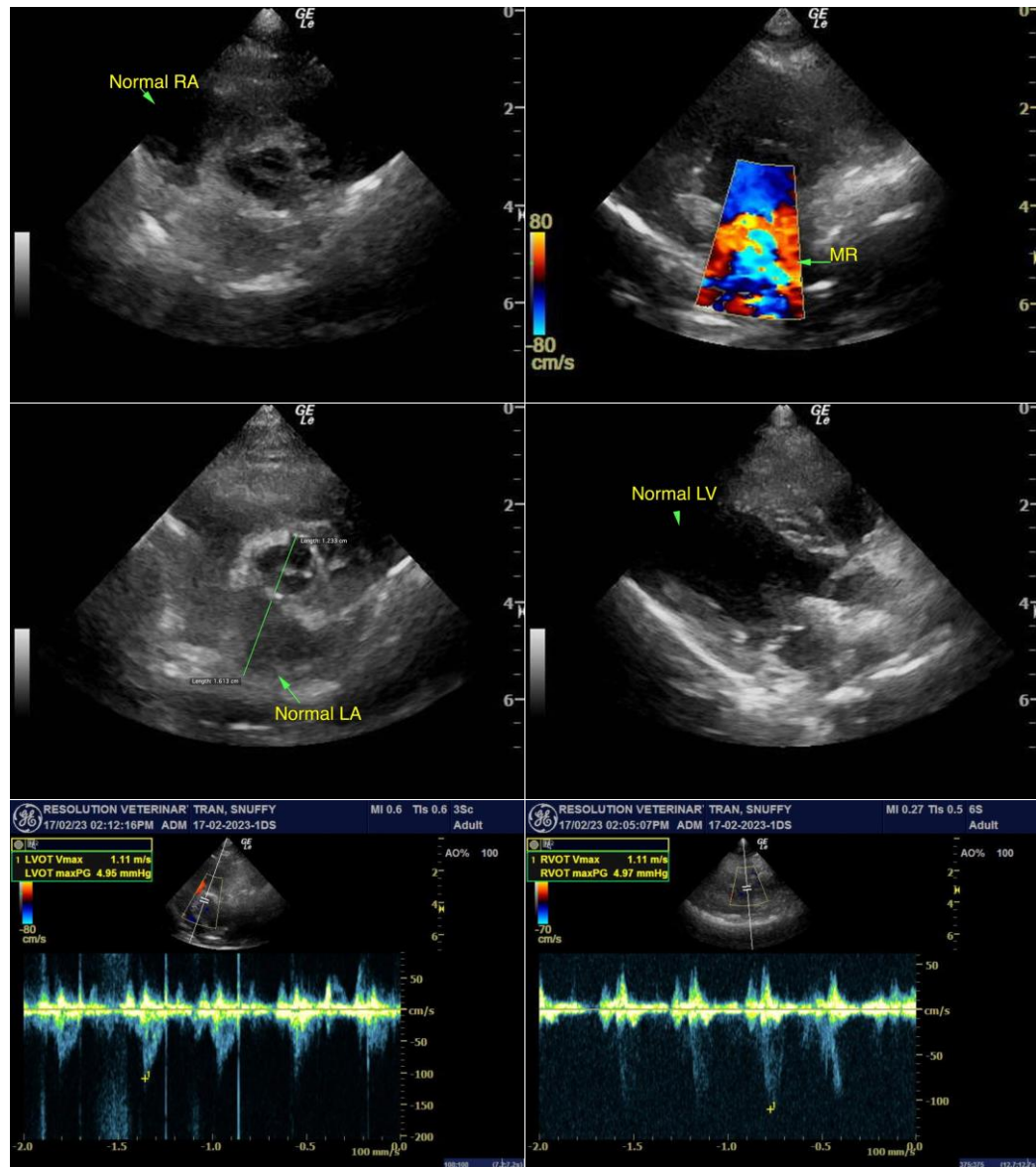
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)

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