



PATIENT PRESENTING CLINICAL SIGNS

Rocky Martin Coughing, heart disease, murmur 5/6, weightloss 138 HR, 30 RR Current Medications Furosemide 12.5, enalapril 1.25mg, Spironolactone 4mg, Hydrocodone

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Chihuahua

SEX

Neutered Male

AGE

13 Years

WEIGHT

6.0 Pounds

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	5.8	3.2 max	NM	2.0	48.1	82	0.2
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	197	--	0.6		3.7	2.7	

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

Countryside AC

REFERRING VET

Dr. Cox

INVOICE

43164

DATE

12/2/22

Cardiac Presentation

The echocardiogram for this patient presented moderately to severely excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Deviation of the intraatrial septal towards the atrium noted, consistent with increased left atrial pressure. The cranial and caudal **mitral** valve leaflets presented moderate thickening consistent with moderate endocardiosis. No evidence of significant valvular prolapse or chordae tendineae rupture. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented normal thicknesses with maintained linear contour with increased left ventricular volume. 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. Mild aortic insufficiency on doppler. 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 mild thickening with 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

- Chronic mitral valve disease (ACVIM advanced B2, possible emerging stage C)



PATIENT

Rocky Martin

- TR – estimated pulmonary pressure gradient consistent with mild increased pulmonary pressure, yet not overtly suggestive of clinical pulmonary hypertension.
- Mild aortic insufficiency

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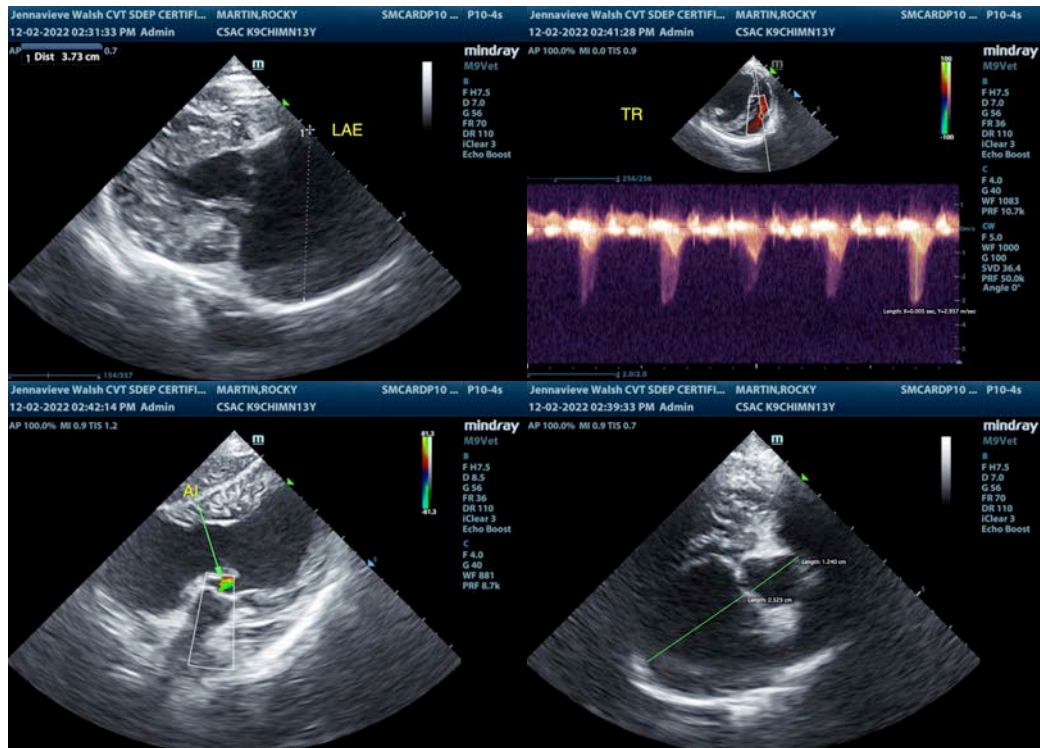
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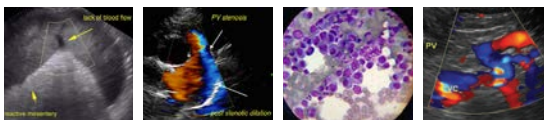
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The degree of LA/LV enlargement indicates that the current and future risk of complications and left-sided heart failure secondary to mitral insufficiency is significantly increased. Potential for current pulmonary edema possible. Correlation with 3-view chest radiographs recommended if not done. Pimobendan 0.3 mg/kg PO BID in addition to current diuretic protocol and anti-tussive medications is suggested. The current reported resting respiration rate is however not overtly consistent with edema formation.

Prognosis is very guarded going forward with potential for emerging CHF development or development of malignant arrhythmias. Monitoring of renal parameters, systemic BP, as well as ECG if possible suggested. Recheck echocardiogram recommended in 3-4 months, sooner if progressive clinical signs or evidence of CHF.





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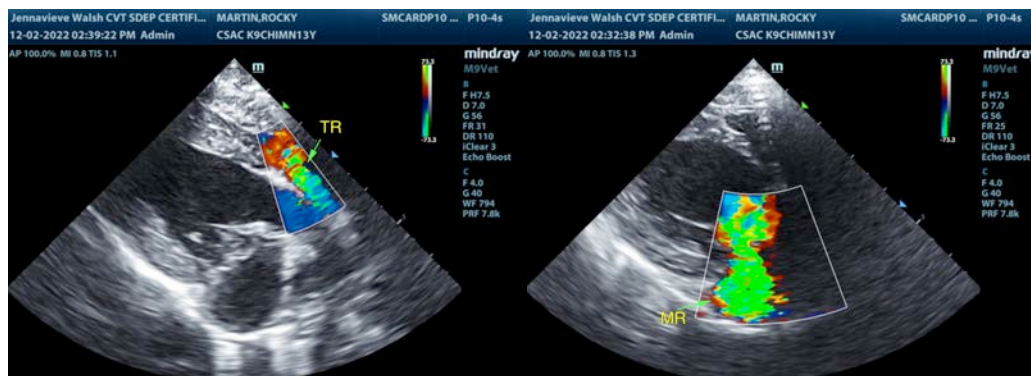
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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