



## PATIENT

Winston Langer

## SPECIES

Canine

## BREED

Cavalier King Charles  
Spaniel

## SEX

MN

## AGE

7.5 years

## WEIGHT

29 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Shari Reffi, CVT

## HOSPITAL NAME

Newton Vet

## REFERRING VET

Dr. Bladek

## INVOICE

15575

## DATE

12/2/22

## PRESENTING CLINICAL SIGNS

Murmur has progressed, last echo performed 3/4/21 (stage B1 valvular dz at that time) report attached.

Current meds: Enalapril 5mg bid

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
<b>CARDIAC PARAMETERS</b>	<b>VMAX</b> (m/s)	<b>VMAX</b> (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
<b>PATIENT</b>	5.7	2.6		1.6	45.3	77.2	0.23
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
<b>CARDIAC PARAMETERS</b>	(BPM)	<b>VMAX</b> (m/s)	<b>MAX</b> (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	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>	121	1.4	1.0		4.4	4.0	

## Cardiac Presentation

The echocardiogram in this patient demonstrated mild to moderate enlarged **left atrial** size based on 3 different LA measurement methods. Mild deviation of the interatrial septum towards the right atrium, suggestive of increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented moderate thickening consistent with moderate endocardiosis. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour with mild increased left ventricle 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. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated minor 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). Mild pulmonic insufficiency was present on Doppler measuring 1.2 m/s. 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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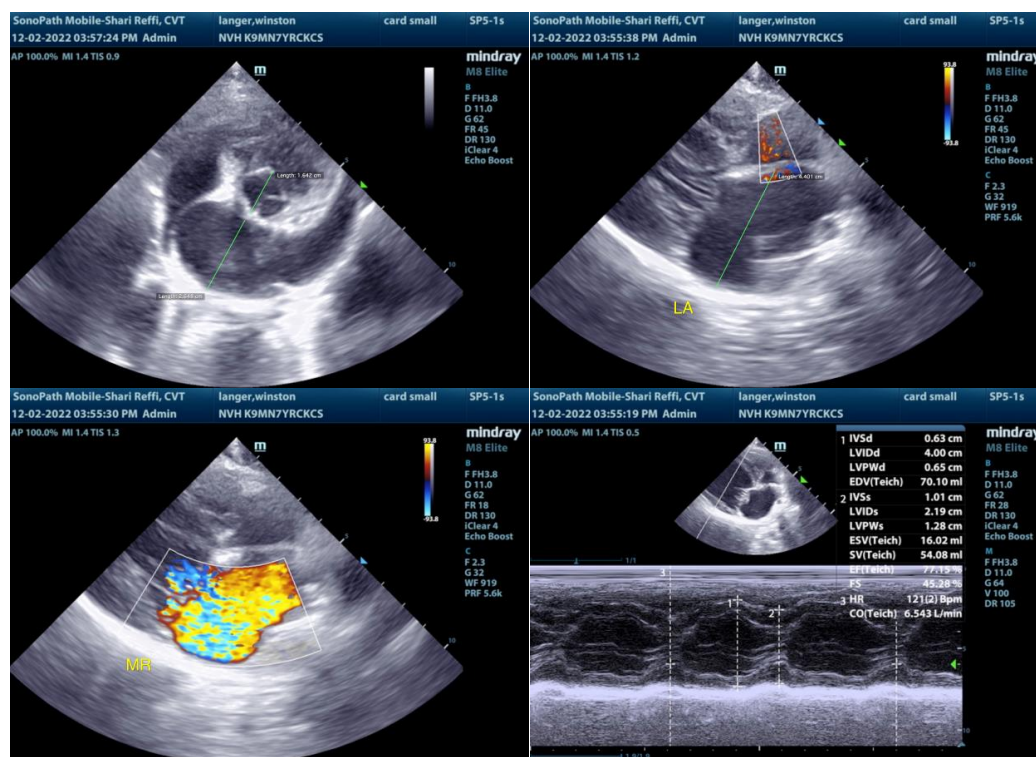
## ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2)
- TR - estimated pulmonary pressure gradient suggestive of mild increased pulmonary pressure, not consistent with clinical pulmonary hypertension
- Pulmonic insufficiency

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Progression in LA/LV size compared to the previous study yet overall, the heart appears to be compensated without reported clinical signs. Pimobendan 0.3 mg/kg PO BID is recommended. Enalapril may be considered if systemic BP >130 (not recommended if systemic BP <130). Baseline monitoring of resting respiration rate is advised.

Prognosis remains highly variable and serial sonographic monitoring is suggested for further assessment. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs arise.





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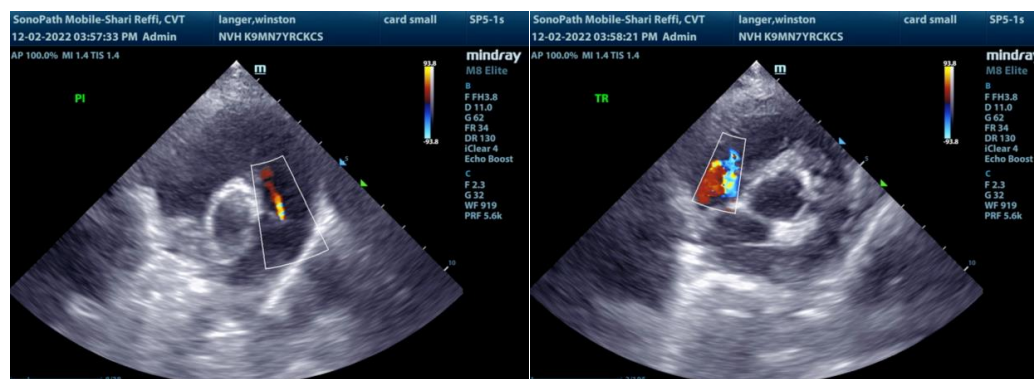
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)**  
info@SonoPath.com