



## PATIENT

Chase Bragg

## SPECIES

Canine

## BREED

Cockapoo

## SEX

MN

## AGE

14 yrs 6 mos

## WEIGHT

31 lbs.

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Shari Reffi, CVT

## HOSPITAL NAME

Warren AH

## REFERRING VET

Dr. Nicole

## INVOICE

15830

## DATE

1/13/23

## PRESENTING CLINICAL SIGNS

Grade II/VI heart murmur. No current meds.  
Abnormal PE/Chem/CBC/UA Results: Alkp 628

## 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>	5.6	<2.0	1.4	1.35	34.2	64.3	0.23
<b>CANINE</b>	<b>HR</b>	<b>AV</b>	<b>PV</b>	<b>BODY WEIGHT</b>	<b>LA</b>	<b>LVIDd</b>	<b>LVIDs</b>
<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>		1.5	1.2		3.7	3.5	

## 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 mild thickening consistent with mild endocardiosis. Doppler indicated measurable mild to moderate eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. Normal measured LVOT velocity with tract aortic insufficiency was noted on Doppler. 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. Mild TR was noted 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). Normal measured RVOT velocity with tract pulmonic insufficiency was noted on Doppler. 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 B1)
- Minor TR - no evidence of clinical pulmonary hypertension
- Trace aortic / pulmonic insufficiency - not clinically significant

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with mild chronic degenerative valvular changes with secondary primarily eccentric mitral valve and mild tricuspid valve insufficiency. The lack of left atrium enlargement indicates that the risk of current and future complications at this stage is low. No other clinical issues such as clinical pulmonary hypertension was present.

In a nonclinical patient without evidence of significant chamber enlargement, cardiac medications are not indicated. Prognosis is variable and sonographic monitoring is suggested. Assessment of systemic BP, given tract aortic insufficiency to rule out evidence of hypertension, is recommended. Recheck echocardiogram is suggested in 6-12 months, sooner if clinical signs arise.

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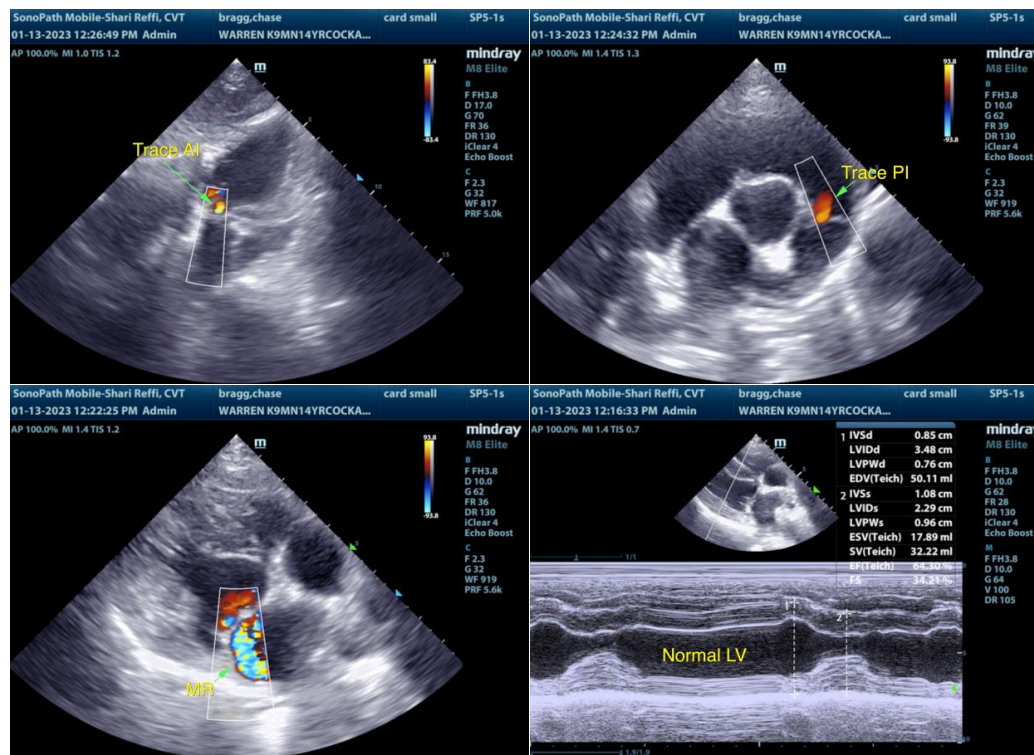
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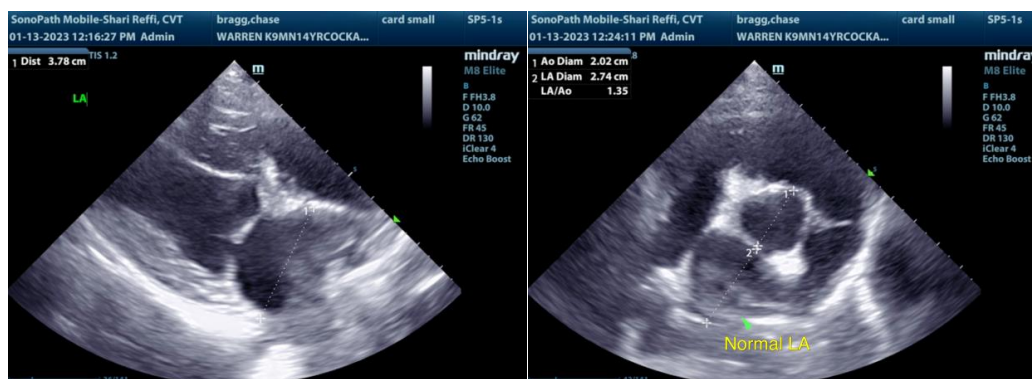
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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