



**PATIENT PRESENTING CLINICAL SIGNS**

Thomas Stephens

History: Long standing heart murmur. No clinical signs of heart disease (no cough, exercise intolerance, syncope, restlessness). This is a pre-dental cardiac assessment. Radiographs do not demonstrate cardiomegaly.

**SPECIES**

Abnormal PE/Chem/CBC/UA Results: Severe dental disease. Grd III/VI systolic murmur heard on the right and left sides.

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

Cocker Spaniel Cross

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Complete filling of the left atrium was noted, yet compensated at this time. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable 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** insufficiency was noted and considered significant. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Trivial **pulmonic** insufficiency was noted and measured 6.4 m/sec. 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.

**SEX**

Neutered male

**AGE**

9 years

**WEIGHT**

13 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Westcott

**HOSPITAL NAME**

Alastair Westcott

**REFERRING VET**

Dr. Westcott

**INVOICE**

94538

**DATE**

12/13/21

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	5.36	3.8	NM	1.3	33	63	NM
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		1.05	0.84	13 kg	1.94	2.65	



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**ULTRASONOGRAPHIC FINDINGS**

Mitral and tricuspid insufficiency with moderate pulmonary hypertension.

Volume and function is conserved.

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Consistent with stage B1 valvular disease.

**BREED**

Cocker Spaniel Cross

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is no evidence of volume overload; however, pulmonary hypertension should be treated if exercise intolerance is an issue and if hepatic veins are dilated. Recheck blood pressure measurements are warranted if not already performed. A recheck is recommended in 3-6 months.

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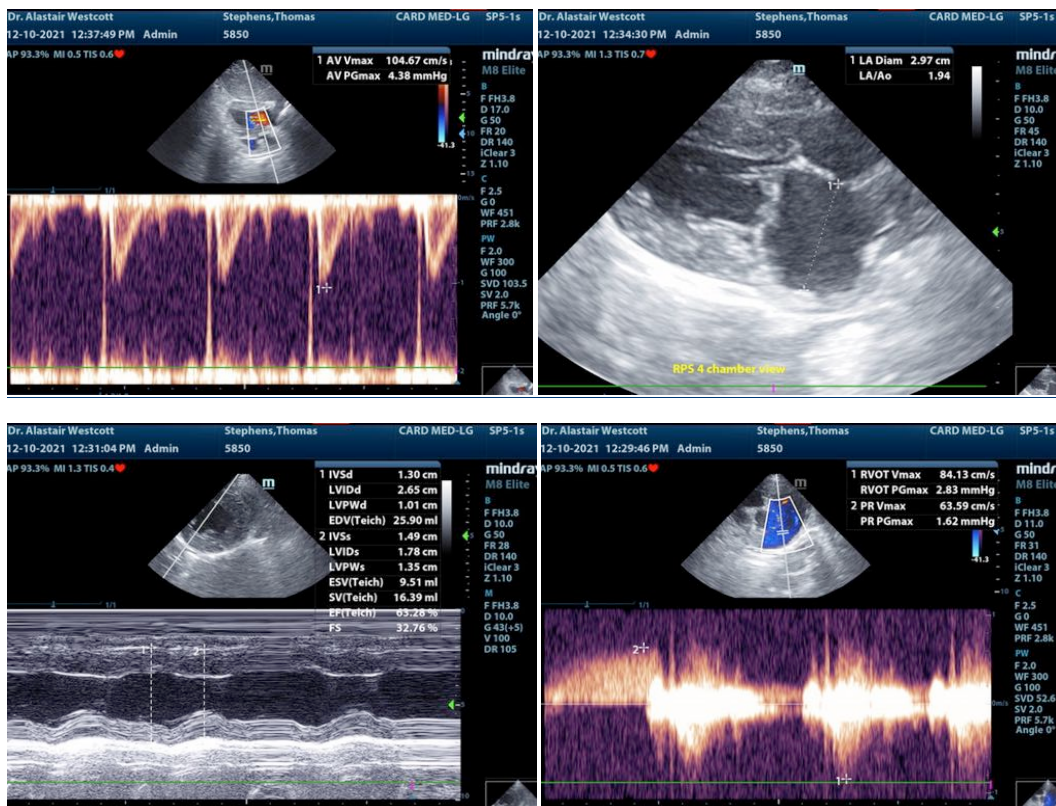
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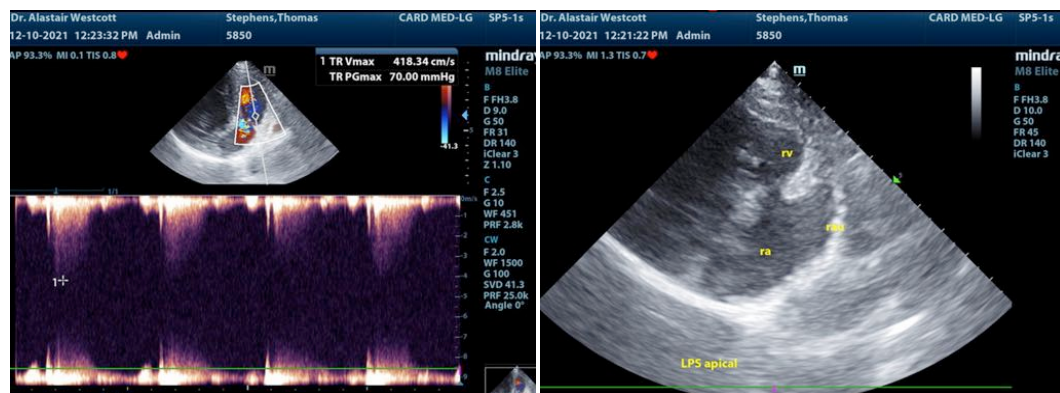
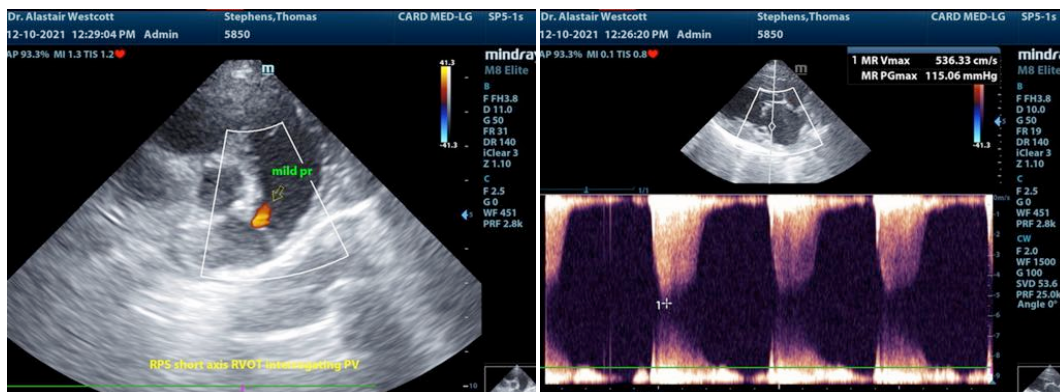
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

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