



**PATIENT PRESENTING CLINICAL SIGNS**

Summer Watkins History: 3/6 heart murmur, coughing, urinary incontinence Proin ER

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**SPECIES**

Canine

**BREED**

Cocker Spaniel

**SEX**

FS

**AGE**

2008

**WEIGHT**

15.6

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	5.9	<2		1.53	49	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				
PATIENT	137	1.8	1.2		3.5	3.3	

**Cardiac Presentation**

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT ARDMS/RVT

**HOSPITAL NAME**

New Britain VC

**REFERRING VET**

Dr. Bandekar

**INVOICE**

11015ag

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The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis. No evidence of valvular prolapse or chordae tendinea rupture. Doppler indicated measurable 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 adequate linear morphology. 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 early to mild B2)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is secondary to chronic degenerative mitral valve changes with secondary eccentric mitral valve insufficiency. The minor LA enlargement indicates that the risk of complication is



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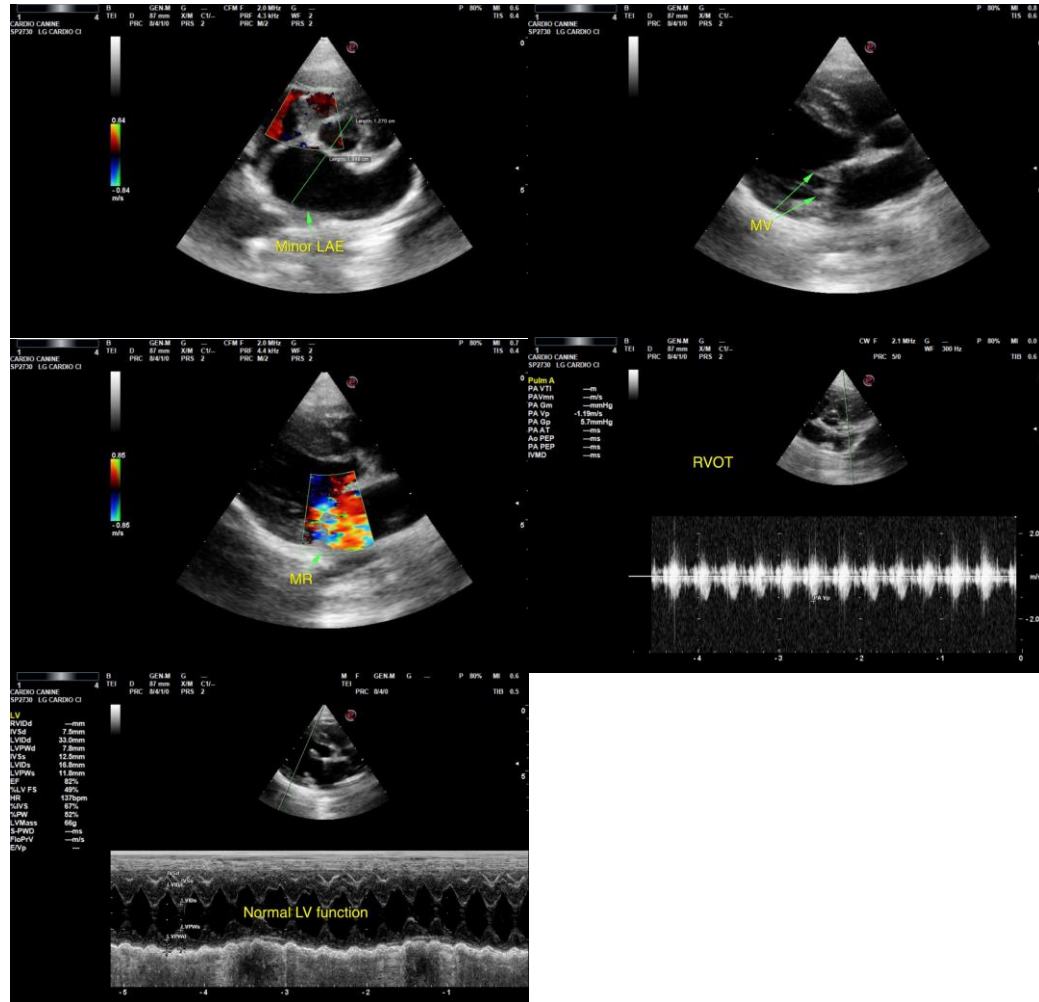
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low however, prognosis at this stage is highly variable. The coughing in this patient is not suspected to be cardiogenic in origin. In a non-clinical patient without evidence of chamber enlargement, cardiac medication is not overtly indicated. Pimobendan would not be unreasonable since this medication may help prolong cardiac changes associated with mitral valve insufficiency. Recheck echocardiogram suggested in 6 months, sooner if signs of cardiac disease arise.



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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