



**PATIENT PRESENTING CLINICAL SIGNS**

Sami Stuhlt History: History of murmur grade 5/6, lethargic, coughing; history of mitral valve insufficiency. Current meds: Enalapril BID, Vetmedin BID. Bloods - pending.

**SPECIES Abnormal PE/Chem/CBC/UA Results:**

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Cavalier King Charles								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
	PATIENT	6.3	2.4	1.5	1.43	44.7	79.4	0.25
AGE	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)
12 yr								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
27.8 lb	PATIENT	131	1.3	0.75		4.85	4.7	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

Westwood Regional Veterinary Hospital

**REFERRING VET**

Dr. McConnell

**INVOICE**

10642ag

**DATE**

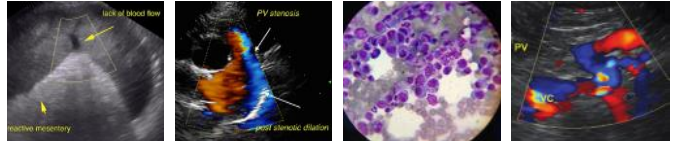
05/16/2022

**Cardiac Presentation**

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Mild deviation of the intra atrial septum towards the right atrium suggestive of mild increased LA pressure was present. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis without valvular prolapse or chordae tendinea rupture. Doppler indicated measurable moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour with mild increased LV 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 concurrent vegetative 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 B2) with mild elevated MR velocity
- Mild TR-estimated pulmonary pressure gradient not consistent with clinical pulmonary hypertension



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Sami Stuhlt

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Canine

**BREED**

Cavalier King Charles

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is consistent with chronic degenerative valvular changes with secondary eccentric MR and mild TR. No other clinical issues such as LV systolic dysfunction were noted. The mild to moderate LA enlargement indicates that the risk of complication is mild to moderately elevated yet subjectively the heart appeared to be compensated. The coughing in this patient may be multifactorial in origin owing to mild cardiogenic component, possible mainstem bronchi irritation secondary to LA enlargement or some degree of primary lower airway disease as a contributing factor to the cough. Vetmedin 0.3 mg/kg PO BID is warranted while a weak or lowest effective dose diuretic trial i.e. spironolactone or Lasix 1-2 mg/kg PO BID with assessment of clinical response and as needed respiratory support would be reasonable. ACE inhibitor medication would be warranted if systemic BP is >130 (not advised if BP <130). Hydrocodone may be of potential benefit. Prognosis at this stage is highly variable and serial sonographic monitoring is recommended. Recheck echocardiogram suggested in 6 months, sooner if clinical signs consistent with heart disease are noted.



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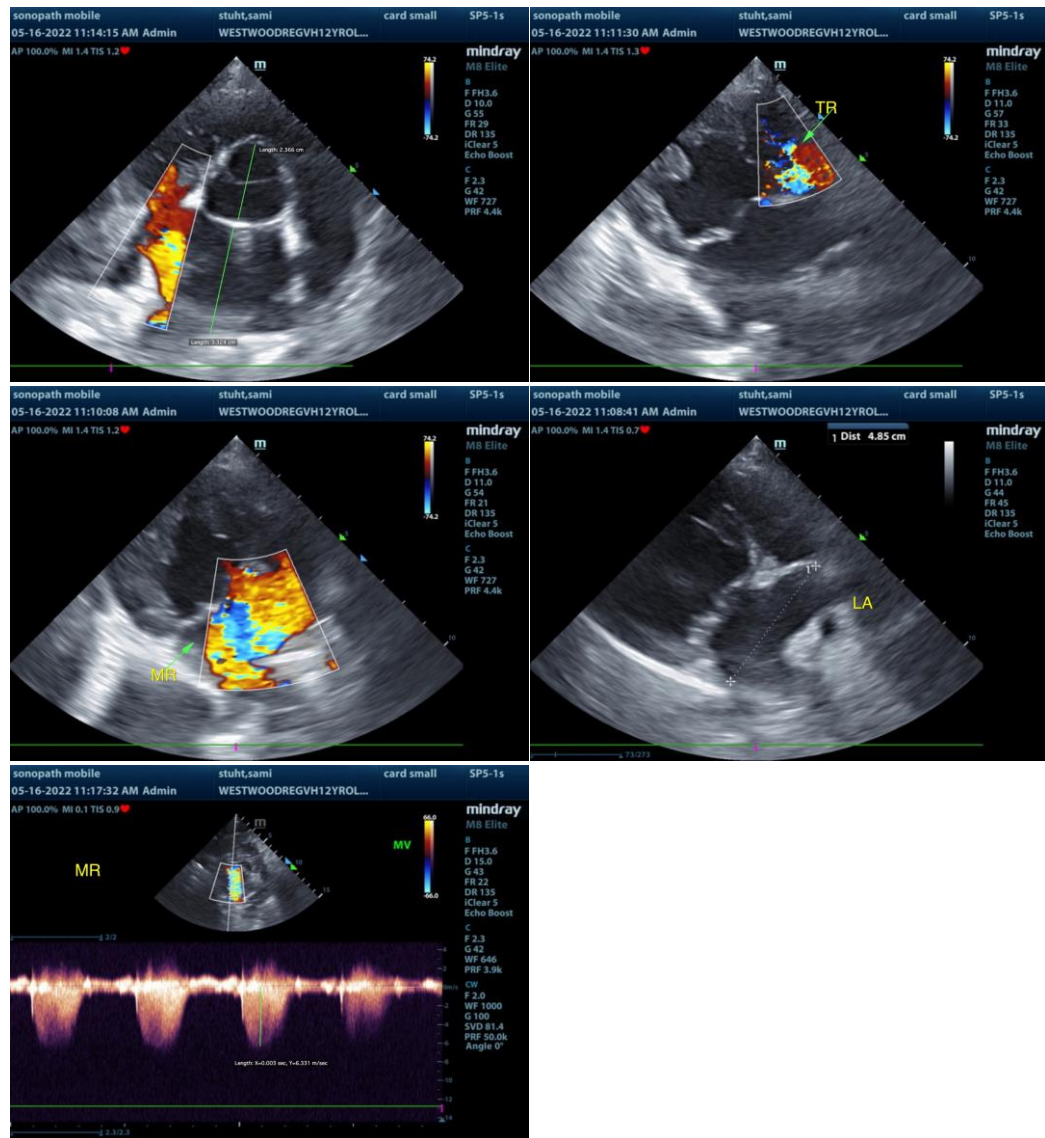
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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