



PATIENT

Cash Wojnowiak

SPECIES

Canine

BREED

King Charles Cavalier

SEX

MN

AGE

8 years

WEIGHT

25.5 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr Matt Sobon, New
Berlin Animal Hosp

INVOICE

13136

DATE

1/20/22

PRESENTING CLINICAL SIGNS

Hx of heart disease with increased coughing. grade 3/6 systolic heart murmur noted. Femoral pulse good.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.7	2.0	1.75	1.83	49.4	84.4	0.1
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	BELOW	BELOW	BELOW	BELOW
PATIENT	121	1.44	1.0		4.5	3.3	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Deviation of the interatrial septum towards the right atrium consistent with elevated left atrial pressure was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis with minor prolapse of the septal leaflet. Doppler indicated measurable 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 subjective concurrent minor valvular thickening with mild insufficiency on color 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.



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ULTRASONOGRAPHIC FINDINGS

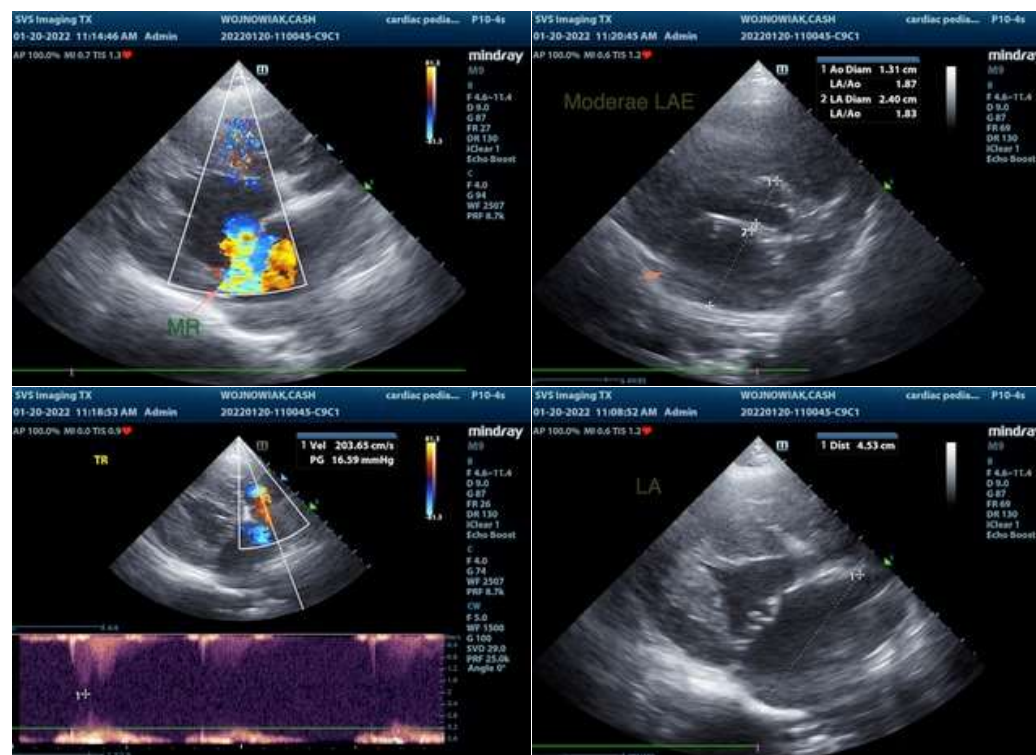
Primary Findings

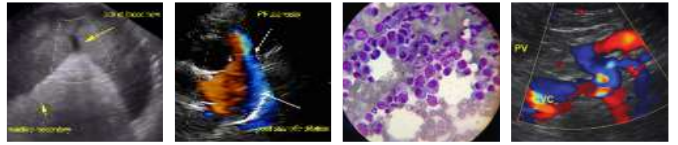
- Myxomatous mitral valve disease with secondary eccentric mitral valve insufficiency (ACVIM B2)
- Mild TR - estimated pulmonary pressure gradient (<20 mmHg), not consistent with overt clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The moderate LA enlargement in this patient indicated that the risk of complication secondary to mitral valve insufficiency is elevated. The degree of LA enlargement was not overtly consistent with congestion, yet could be possible. Correlation with three view chest radiographs, if not done, is suggested.

The coughing in this patient may be multifactorial in origin with contribution owing to mainstem bronchi irritation secondary to LA enlargement or lower airway disease. Given the cardiac presentation, Pimobendan 0.3 mg/kg PO BID is recommended as this medication may help prolong cardiac changes associated with MVD. Hydrocodone at appropriate dose may also prove beneficial. Omega 3 Fatty acids and mild salt restriction may also prove beneficial and could be considered. Monitoring of baseline resting respiration rate is recommended. Recheck echocardiogram is suggested in 6 months, sooner if clinical signs consistent with left-sided heart disease develop or potentially progress.





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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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