



PATIENT

Carmen Walker

SPECIES

Canine

BREED

Havanese

SEX

F/S

AGE

10 yo

WEIGHT

20 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Meredith Swart

HOSPITAL NAME

Swart Veterinary
Imaging

REFERRING VET

Dr. Meredith Swart

INVOICE

17072

DATE

6/13/23

PRESENTING CLINICAL SIGNS

New murmur this year. Patient had recent episode where she got excited and had a possible syncopal event. Radiographs showed somewhat enlarged cardiac silhouette and perihilar edema. Patient was started on pimo 2.5 mg 1 tab in am and 1/2 tab in pm and lasix 12.5 mg 1 tab q12H. O reports no more events and no coughing. Echo is follow up to that event today. No crackles auscultated today

Abnormal PE/Chem/CBC/UA Results: labwork last month showed mildly ALP elevation at 215 otherwise WNL

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	<1.3	28-40	40-100	<0.6
PATIENT			1.7	1.7	51	85	0.22
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	NM	1.6	1.0		3.8	3.6	

Cardiac Presentation

The echocardiogram in this patient demonstrated mild to moderately enlarged **left atrial** size based on 3 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. No overt mitral valve prolapse was noted. Doppler indicated moderately eccentric insufficiency. The **left ventricle** presented normal thicknesses with maintained linear contour with 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 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.



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ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is secondary to chronic degenerative valvular changes with secondary eccentric MR. The mild to moderate increased LA dimension, as well as evidence of increased LV dimension, indicate that the current and future risk of complications secondary to MR is moderately elevated. No other clinical issues such as LV systolic dysfunction or overt clinical pulmonary hypertension.

Based on EPIC Study protocol (normalized LV 1.9) Pimobendan 0.3 mg/kg PO BID is warranted at this stage. Diuretic therapy would only be indicated if strong clinical suspicion or radiographic evidence of pulmonary edema. However, the degree of LA enlargement was not overtly consistent with left-sided congestion. If the patient is coughing, consideration for potential multifactorial disease including concurrent lower airway disease, may be indicated. As-needed respiratory support is suggested. Prognosis is highly variable and serial sonographic monitoring is advised. Recheck echocardiogram is recommended in 6 months, sooner if clinically indicated.

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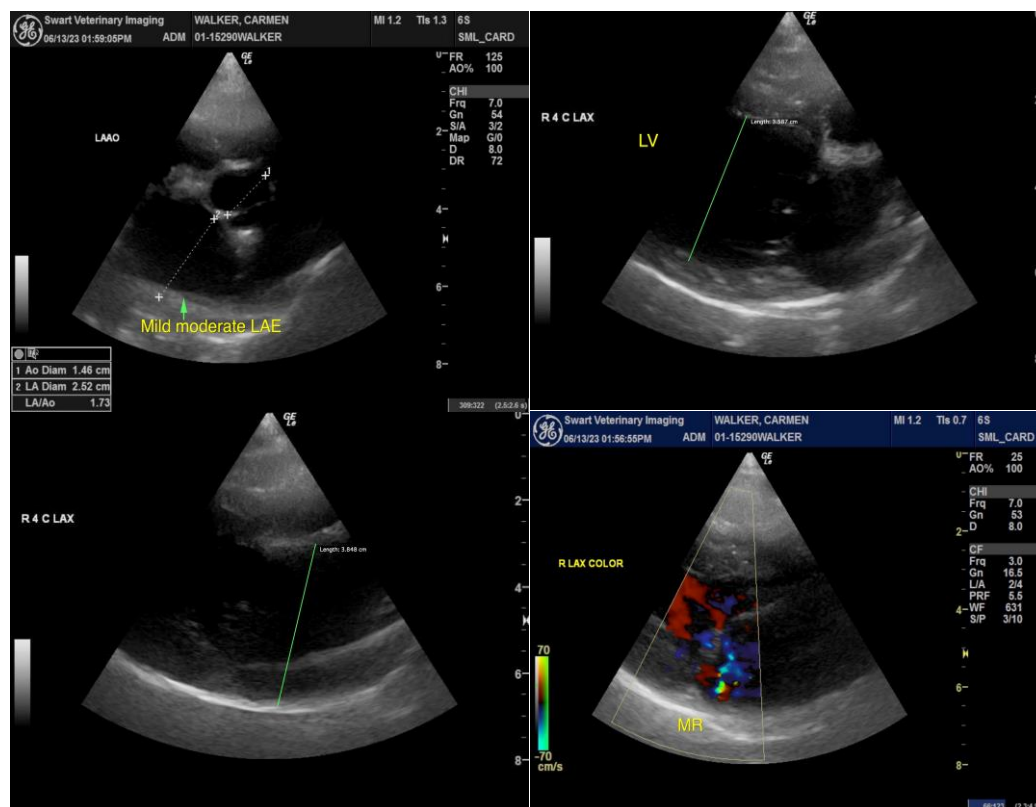
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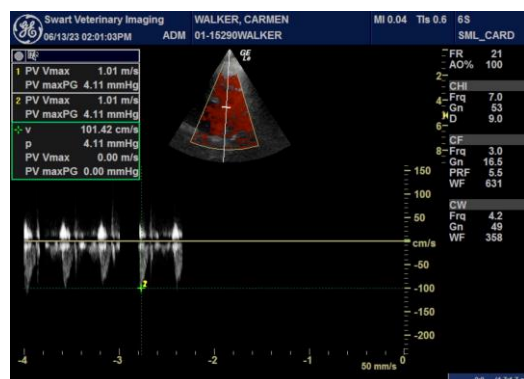
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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