


**PATIENT**

Cesar Kallio

**PRESENTING CLINICAL SIGNS**

History: Recheck echo from 6 months ago. Patient is doing well. Owner reports no clinical signs of CHF. Patient is only taking pimobendan as previously recommended. No diuretics yet.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: none reported

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**BREED**

Mix

**SEX**

MN

**AGE**

11yr

**WEIGHT**

16.5lb

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				3.0	55.9	93	0.21
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	1.5	0.8		4.5	3.6	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Meredith Swart

**HOSPITAL NAME**

 Swart Veterinary  
 Imaging

**REFERRING VET**

Meredith Swart

**INVOICE**

11356ag

**DATE**

08/15/2022

**Cardiac Presentation**

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Deviation of the interatrial septum towards the right atrium consistent with increased left atrial pressure was present. The cranial and caudal mitral valve leaflets presented vegetative thickening consistent with endocardiosis with mild previously noted prolapse of the septal leaflet. No evidence of tendineae rupture. Doppler indicated moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour and increased left ventricle 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.

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B2-C) mildly progressive
- Static mild mitral valve prolapse



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Swart Veterinary  
Imaging

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**INVOICE**

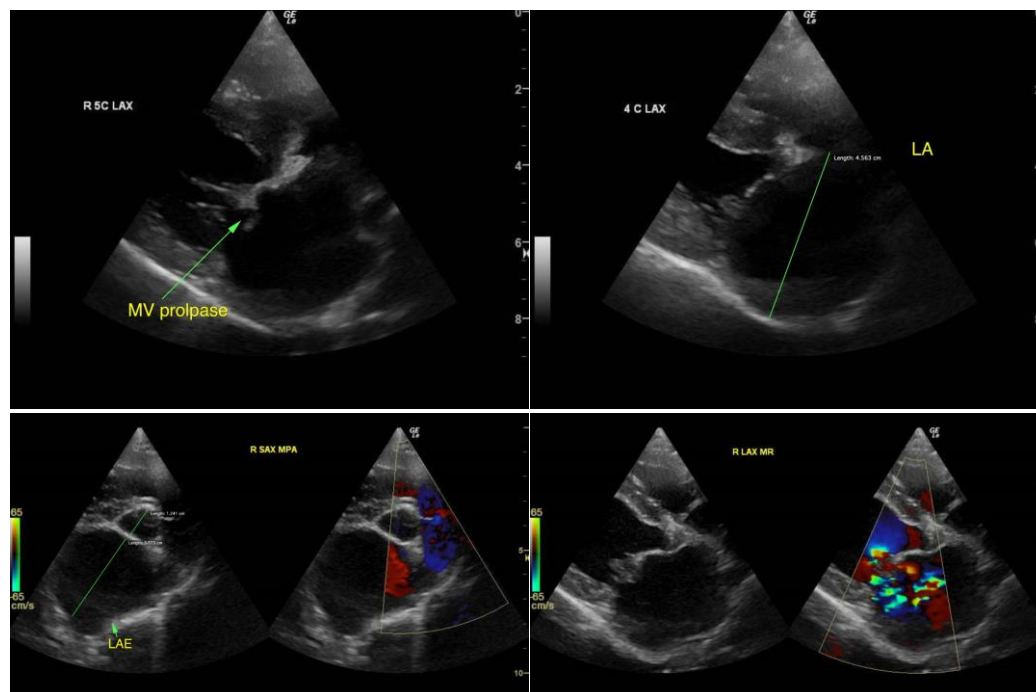
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The echocardiogram indicates mild progressive left chamber enlargement secondary to eccentric mitral valve insufficiency. This patient is at continued increased risk for CHF and development of malignant arrhythmias going forward. Continued Pimobendan 0.3 mg/kg PO BID with weak diuretic spironolactone 1-2 mg/kg PO BID if no clinical evidence of pulmonary edema vs Lasix 1-2 mg/kg PO BID at lowest effective dose if clinical or radiographic evidence of congestion is suggested. Hydrocodone would be recommended if evidence of coughing. Serial monitoring for evidence of pulmonary edema and monitoring of resting RR is recommended. ECG assessment as well as systemic BP could be considered if clinically indicated. Prognosis is guarded at this stage. Recheck echo recommended in 4-6 months, sooner if persistent clinical signs are noted.



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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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