



## PATIENT PRESENTING CLINICAL SIGNS

Mandy Apkarian

History: Previous echocardiogram done 4/21/2021. Had 4/6 heart murmur and coughing. Chronic mitral valve disease and mild mitral valve prolapse. Put on Pimobendan 2.5mg 1/2 tab BID Came in 12/22 for coughing and added furosemide 12.5mg 1/2 tab BID

## SPECIES

Canine

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

## BREED

Poodle/Mix

## SEX

Spayed Female

## AGE

10 Years

## WEIGHT

9.2 Lbs.

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	5.5	1.6	1.5	1.45	52.2	87.1	0.17
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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>	116	1.1	0.8	--	2.8	2.3	--

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Kim Liedberg

## HOSPITAL NAME

SVS Imaging WI

## REFERRING VET

Kim Liedberg

## INVOICE

13711

## DATE

1/31/22

## Cardiac Presentation

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 with previously noted prolapse of the septal leaflet. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. Subtle subjective evidence of mild LV myocardial remodeling was present. The **myocardium** exhibited normal echogenicity without 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. Minor TV insufficiency was present. 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 B-2) with previously noted static mitral valve prolapse



**PATIENT**

Mandy Apkarian

- Minor TR- estimated pulmonary pressure gradient not overtly consistent with clinical pulmonary hypertension

**SPECIES**

Canine

**BREED**

Poodle/Mix

**SEX**

Spayed Female

**AGE**

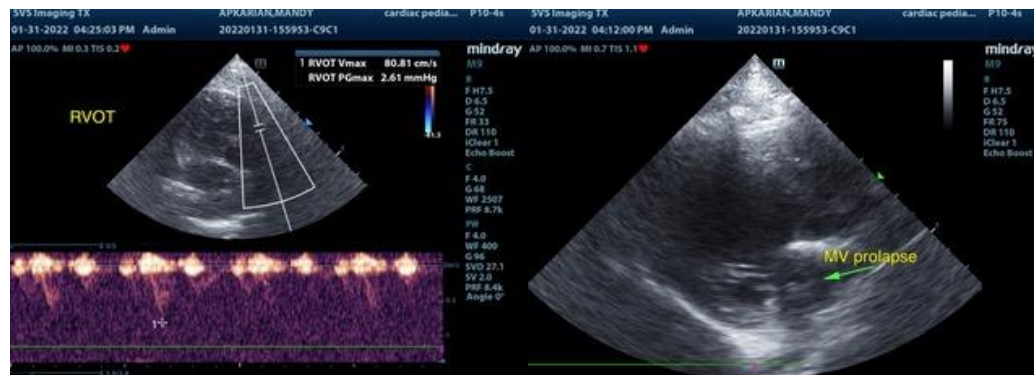
10 Years

**WEIGHT**

9.2 Lbs.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The echocardiogram at this time exhibited similar chamber size with only mild progressive LA enlargement noted. The lack of significant left atrium enlargement as well as lack of generalized left heart volume overload continue to suggest that the risk of current and future complication, owing to mitral valve insufficiency is relatively low. No other clinical issue, such as systolic dysfunction or overt clinical pulmonary hypertension were noted. Given these findings, the coughing in this patient is suspected to be noncardiogenic in origin. Pimobendan warranted, as this medication may help prolong cardiac changes associated with mitral valve insufficiency. Correlation with three-chest radiographs suggested. Recheck echocardiogram suggested in 6 months or sooner if clinical signs suggestive of heart disease (increased resting respiration rate, exercise intolerance, etc.) are noted.



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The information and recommendations provided are based on the images presented by the referring veterinarian. 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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