


**PATIENT**

Princesa de Jesus

**PRESENTING CLINICAL SIGNS**

Left systolic heart murmur grade 4 out of 6 The patient collapsed once Coughing

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Blood work-mild elevated white blood cells

**BREED**

Yorkie/Chihuahua X

**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			1.4		46	81	0.15
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				3.2	2.8	

11.5

**INTERPRETED BY**

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

**Cardiac Presentation**

The echocardiogram for this patient presented minor increased left atrial size expressed both in the LA/AO and LA max measurements. The cranial and caudal mitral valve leaflets presented moderate thickening consistent with endocardiosis. Doppler indicated moderate eccentric insufficiency. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. 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. Subjective normal aortic valve. 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, mild turbulent to dynamic systolic outflow and overtly normal diameter (approx. 1:1 pa/ao ratio). Doppler revealed mild pulmonic insufficiency. 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. No overt arrhythmia.

**IMAGING PERFORMED BY**

Dr. Sharkaway

**HOSPITAL NAME**

 Kew Gardens Animal  
 Hospital

**REFERRING VET**

Dr. Sharkaway

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (ACVIM B1-early B2)
- Pulmonic insufficiency.

**INVOICE**

13421ag

**DATE**

04/04/2023



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**SEX**

FS

**AGE**

10

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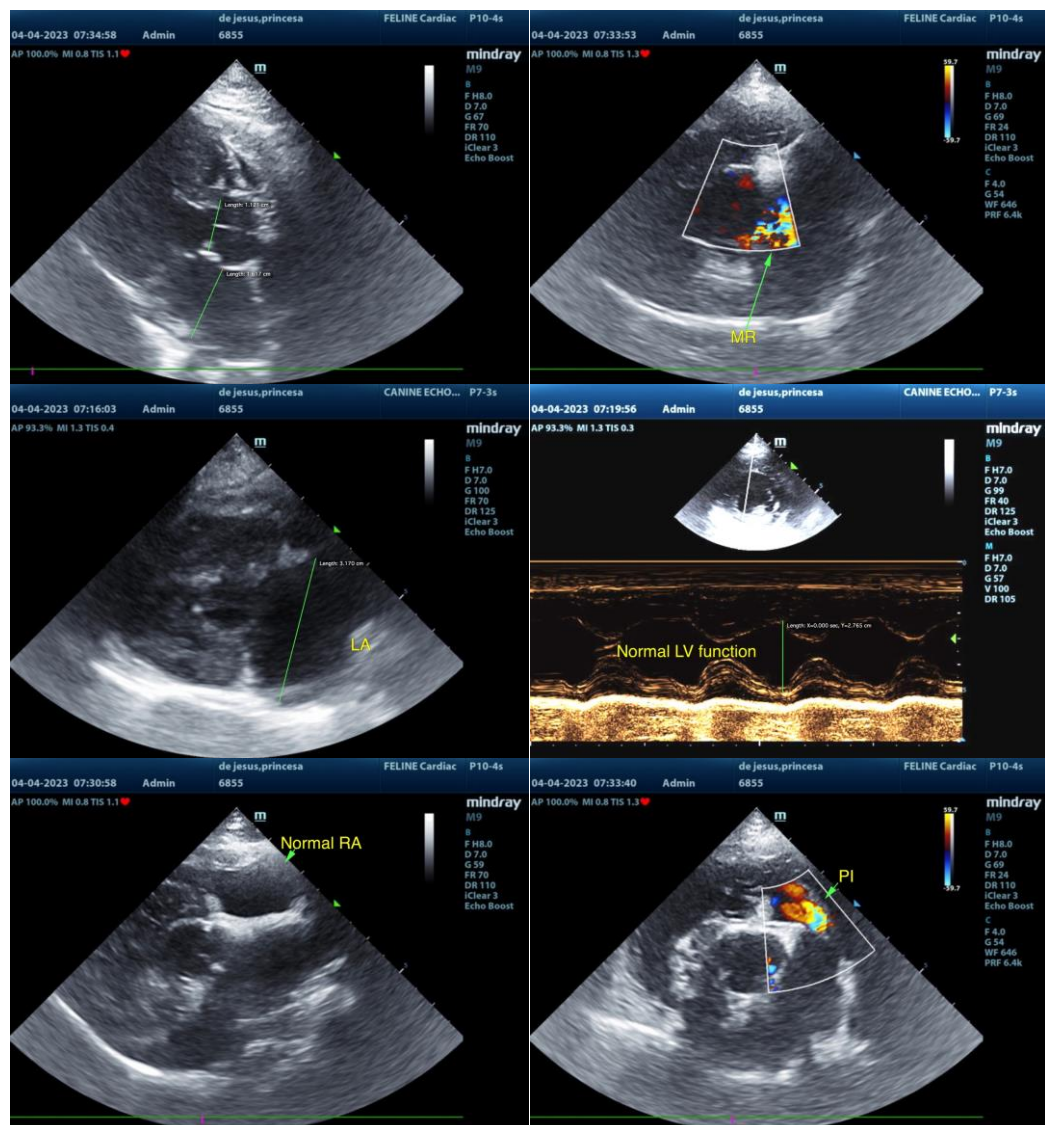
**DATE**

04/04/2023

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is consistent with chronic degenerative valvular changes with secondary eccentric moderate MR. The lack of significant LA enlargement indicate that the risk of complication is low to potentially mildly elevated. Given lack of left heart volume overload not consistent with congestive criteria, the coughing in this patient is most likely non-cardiogenic. No evidence of additional clinical issues such as LV systolic dysfunction. The possibility of pulmonary hypertension is considered low given the lack of right chamber enlargement.

Cardiac medications are not overtly indicated. ECG assessment to assess for possible paroxysmal arrhythmia if continued episodes of collapse may be indicated. If progressive coughing or recurrent collapse, recheck echocardiogram to assess for evidence of clinical pulmonary hypertension or referral to a cardiologist would be indicated.





**PATIENT**

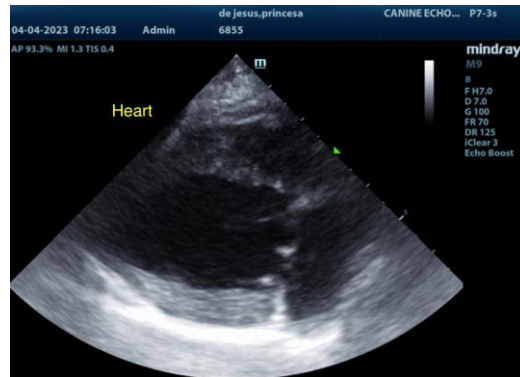
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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