



**PATIENT PRESENTING CLINICAL SIGNS**

Lily Moohly Heart murmur heard at exam asymptomatic  
 Abnormal PE/Chem/CBC/UA Results: Bloodwork - unremarkable thoracic radiographs - mild cardiomegaly, VHS 10.25

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**BREED**

Mixed

**SEX**

Spayed Female

**AGE**

15 Years

**WEIGHT**

12 Pounds

**INTERPRETED BY**

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

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	5.5		1.7	1.4	43	76	0.2
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	168	1.3	1.0		2.9	2.6	

**Cardiac Presentation**

The echocardiogram for this patient presented minor excessive **left atrial size** expressed both in the LA/AO and LA max measurements. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with endocardiosis. Doppler indicated measurable mild 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. 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. No arrhythmia.

**IMAGING PERFORMED BY**

Dr. Gudrun Gunther

**HOSPITAL NAME**

New Frontier AMC

**REFERRING VET**

Dr. Gudrun Gunther

**INVOICE**

45512

**DATE**

2/25/23

**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease (early/minor ACVIM stage B1)

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is secondary to mild chronic degenerative valvular changes with secondary mild eccentric MR. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. In an asymptomatic patient without evidence of significant chamber



**PATIENT**

Lily Moolhy

enlargement, there are no indications for cardiac medication at this stage. However, prognosis is highly variable, and serial sonographic monitoring is recommended. Recheck echocardiogram suggested in 6-8 months, sooner if clinical signs arise.

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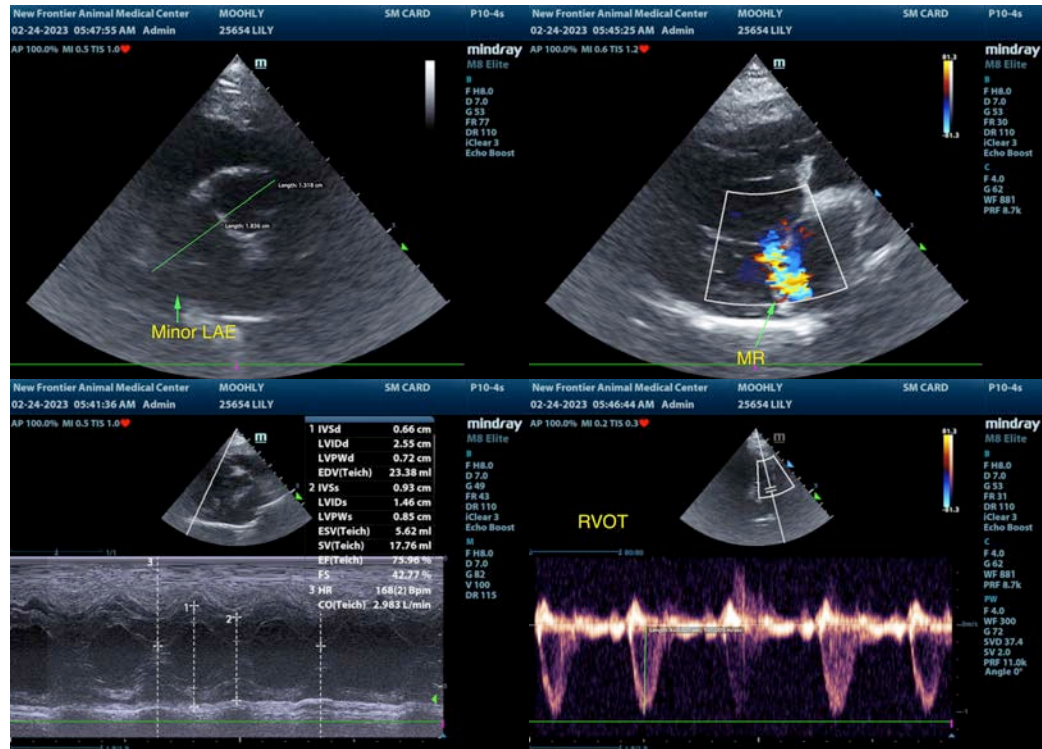
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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