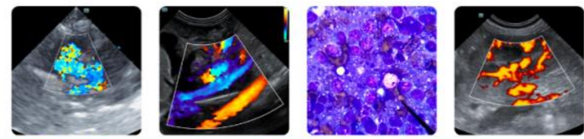


PATIENT

Zoey Amorim

SPECIES

Canine

BREED

Maltese

SEX

Female

AGE

14 Years

WEIGHT

9 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Kerri Becker

HOSPITAL NAME

Kenilworth AH

REFERRING VET

Dr. Mansour

INVOICE

13016

DATE

01/08/2026

PRESENTING CLINICAL SIGNS

HM grade 4

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

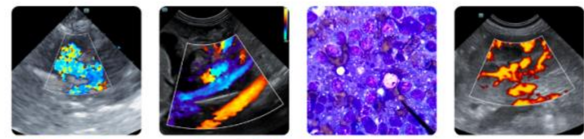
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	5.2	<2.0	NM	2.2	40	72	0.35
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (lbs)	**LAD** LA MAX 4 Chamber	**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	195	1.0	0.6	9.0	3.0	3.0	--

Cardiac Presentation

The echocardiogram in this patient demonstrated moderate to significant increased **left atrial** dimension with intra-atrial septal deviation based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis with mild valve prolapse. Doppler indicated measurable severe eccentric MR. The **left ventricle** presented thicknesses with linear contour and mild increased LV dimension. 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 mild thickening with mild TR on doppler. 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 cardiac / pericardial tumors was visible. No evidence of arrhythmia with mild tachycardia.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease with valve prolapse (ACVIM B2- B2+, possible emerging C).
- Mild TV insufficiency- no obvious clinical pulmonary hypertension.



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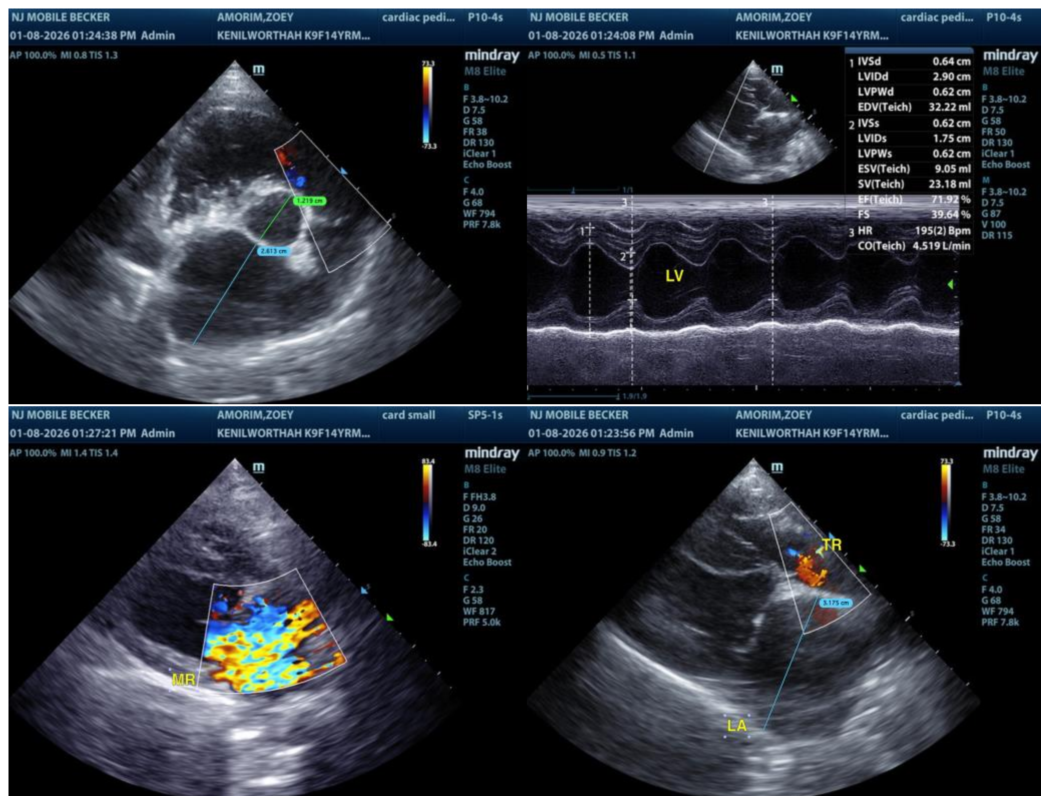
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

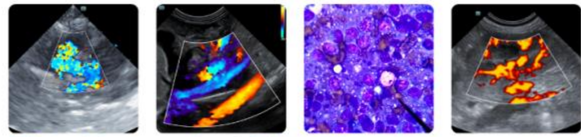
The degree of LA/LV enlargement indicates increased risk for complications, secondary to MR with potential emerging left heart volume overload. Pimobendan 0.3 mg/kg BID, Spironolactone 1 to 2 mg/kg BID if patient is currently non-clinical +/- furosemide/spironolactone combination both 1 to 2 mg/kg BID if elevated resting respiration rate or radiographic evidence of pulmonary edema. ACE inhibitor 0.5 mg/kg SID indicated if BP greater than 130. Omega fatty acid supplementation and mild salt restriction may prove beneficial. Baseline monitoring or resting respiration rate going forward is advised. As needed respiratory support i.e. hydrocodone is recommended if evidence of respiratory signs/coughing.

Anesthetic risk is at least moderately elevated. If required, the following protocol is suggested with limited anesthetic time and judicious IV fluid use after three to five days of Pimobendan. Prognosis is highly guarded going forward. Sonographic monitoring is indicated with recheck echo suggested in six months sooner if initiation of clinical signs. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



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



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can be of any further assistance, please contact me.

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

info@SonoPath.com