



PATIENT

Zelda Factor

SPECIES

Canine

BREED

Lhasa Apso

SEX

Spayed Female

AGE

7 Years

WEIGHT

16.2 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ryan Leal

HOSPITAL NAME

Wellesley Animal
Hospital

REFERRING VET

Dr. Ryan Leal

INVOICE

16348

DATE

05/18/26

PRESENTING CLINICAL SIGNS

Pt presents for evaluation of a newly ausculted heart murmur. Pt was adopted last year, was heartworm positive. Was treated with melarsomine but did not clear the infection. Was then treated with the "slow kill" method which cleared the infection (confirmed 4/2026). Pt also has a history of likely having a couple of litters. Medications: Trazodone, Simparica Trio. Diet: Hill's Science Diet

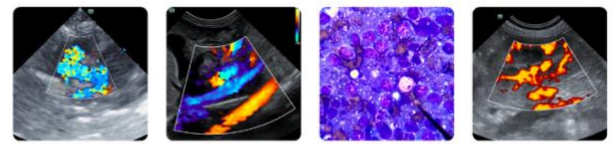
PE: BCS 5/9; 2/6 left systolic murmur, Class III malocclusion CBC/Chem/T4/UA/4dx/Fecal: NSF
ProBNP: 1400 Blood pressure: 125/68 (MAP 75)

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	--	--	NM	1.28	46	75	0.2
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	NM	1.6	0.92	16.2	2.5	2.5	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented mild thickening consistent with mild degenerative changes/endocardiosis. Doppler revealed mild centralized to eccentric MR. 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. Minor 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. Normal measured RVOT velocity. No echographically detectable evidence of cardiac / pericardial tumors was visible. No evidence of arrhythmia. No visualized current heartworms.



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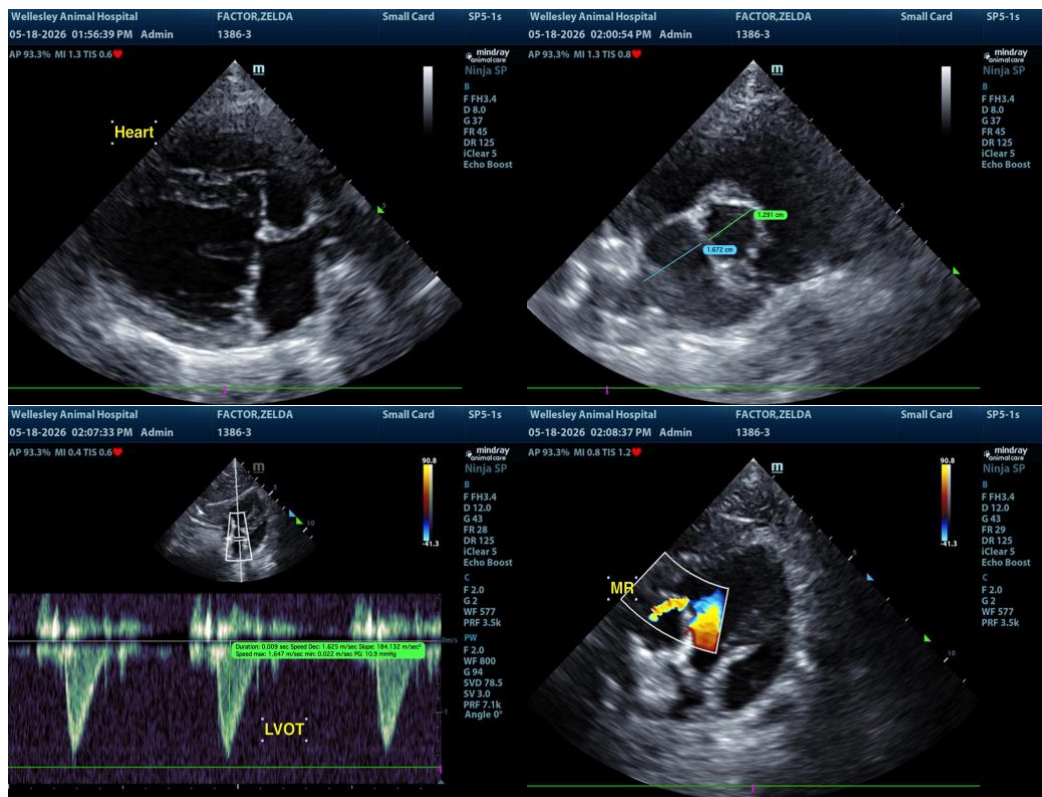
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ULTRASONOGRAPHIC FINDINGS

- Compensated mitral valve insufficiency (B1).
- Minor tricuspid insufficiency- no clinical pulmonary hypertension.
- Normal main pulmonary artery and visible pulmonary artery branches.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is consistent with mild chronic degenerative changes and secondary centralized to eccentric mild MR. No indication for cardiac medication given lack of LA enlargement and assuming patient is non-clinical. No visible evidence of recurrent heartworms or right heart/pulmonary artery pathology. Conservative monitoring of the murmur going forward is advised. Recheck echo is suggested in 6 to 12 months, sooner if increase in murmur intensity or if clinically is indicated. Current cardiac anesthetic risk is considered low. If required, the following protocol is suggested. 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.





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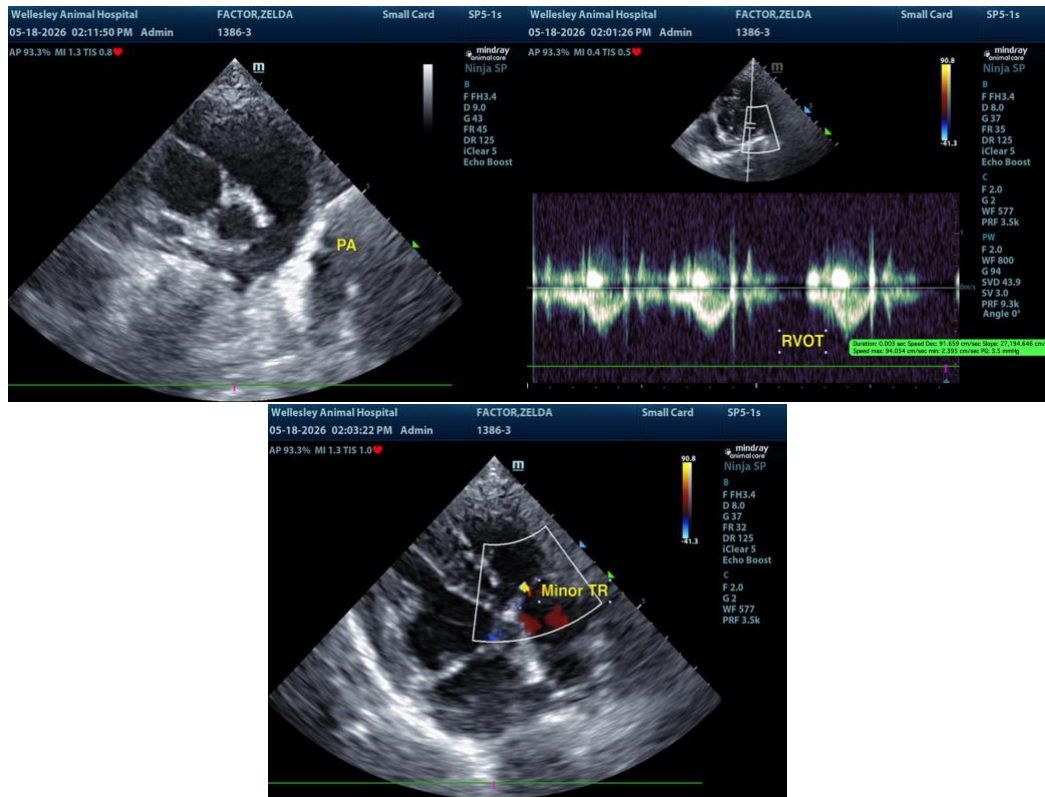
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@SonoPath.com