



PATIENT

Dori Hayes

SPECIES

Canine

BREED

Shih Tzu

SEX

FS

AGE

14 year, 8 months

WEIGHT

9 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Sova AH

REFERRING VET

Dr. Bott-Wentworth

INVOICE

15968

DATE

1/26/23

PRESENTING CLINICAL SIGNS

Patient with history of heart disease presents for echo. Grade 5/6 heart murmur auscultated. Current meds: Phenobard 16.2 mgs, enalapril 2.5 mgs, and Lasix 12.5 mgs.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE	MR	TR	LA/AO	LA/AO	FS	EF	EPSS
CARDIAC PARAMETERS	VMAX (m/s)	VMAX (m/s)	(Boon method)	(Heart Base; Swe)	(%)	(%)	(cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	5.9			1.42	52	86	0.2
CANINE	HR	AV	PV	BODY WEIGHT	LA	LVIDd	LVIDs
CARDIAC PARAMETERS	(BPM)	VMAX (m/s)	MAX (m/s)	(kg)	2D short axis Base view (cm)	Avg; 2D and m-mode short axis (cm)	Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	97	1.3	1.3		2.4	2.1	

Cardiac Presentation

The echocardiogram in this patient demonstrated minor enlarged **left atrial** size based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented moderate thickening consistent with endocardiosis. No evidence of valvular prolapse was noted. Doppler indicated measurable moderate eccentric insufficiency. The **left ventricle** presented thicknesses with linear contour without evidence of overt or significant increased LV volume. 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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM mild B2)



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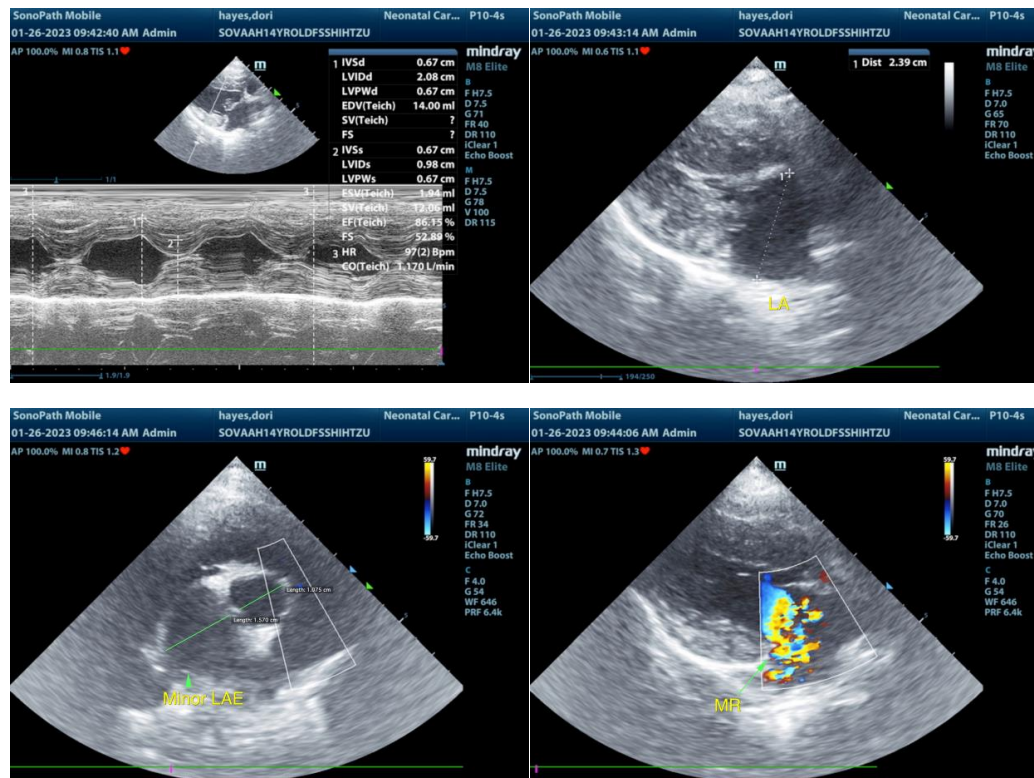
DATE

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The minor increased LA volume indicates that the current and future risk secondary to MR is mildly elevated yet overall, the heart appears to be compensated without anticipated clinical signs secondary to left-sided congestion. Pimobendan 0.3 mg/kg PO BID is warranted at this stage as this medication may help prolong cardiac changes associated with MR. No overt indication for additional cardiac medications unless evidence of increased resting respiration rate, evidence of previous pulmonary edema, or evidence of systemic hypertension (BP > 130). No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension. Prognosis is highly variable and sonographic monitoring is advised. Recheck echocardiogram is suggested in 6 months, sooner if increased resting respiration rate or clinical signs consistent with heart disease are noted. Anesthetic risk is considered mildly increased if need, yet not overtly contraindicated.

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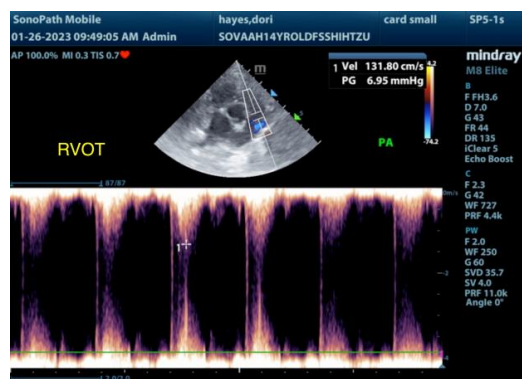
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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