



**PATIENT**

Spencer Digrazia

**SPECIES**

Canine

**BREED**

Rat Terrier Mix

**SEX**

Male Neutered

**AGE**

10y 2m

**WEIGHT**

31.3 lba

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Becca Hamilton

**HOSPITAL NAME**

Budd Lake AH

**REFERRING VET**

Dr. Horn

**INVOICE**

13283

**DATE**

3/17/26

**PRESENTING CLINICAL SIGNS**

History:

- Gagging, coughing, hx of heart murmur needs dental
- coughing, heart murmur 2/6 PMI L side systolic
- Meds: Cerenia

**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	5.3	--	--	2.5	45	77	0.25
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	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	1.5	0.8	--	4.7	4.5	--

**Cardiac Presentation**

The echocardiogram in this patient demonstrated increased **left atrial** size based on 2 different LA measurement methods with mild deviated intra atrial septum. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis with valvular prolapse. Doppler indicated significant eccentric MR. MR velocity measured 5.3 m/s. The **left ventricle** presented moderate to significant increased 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 mildly thickened with TV insufficiency with TR noted on doppler. Measured TR velocity ~4.0 m/s (estimate ~70 mmHg). 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 or current hepatic congestion.



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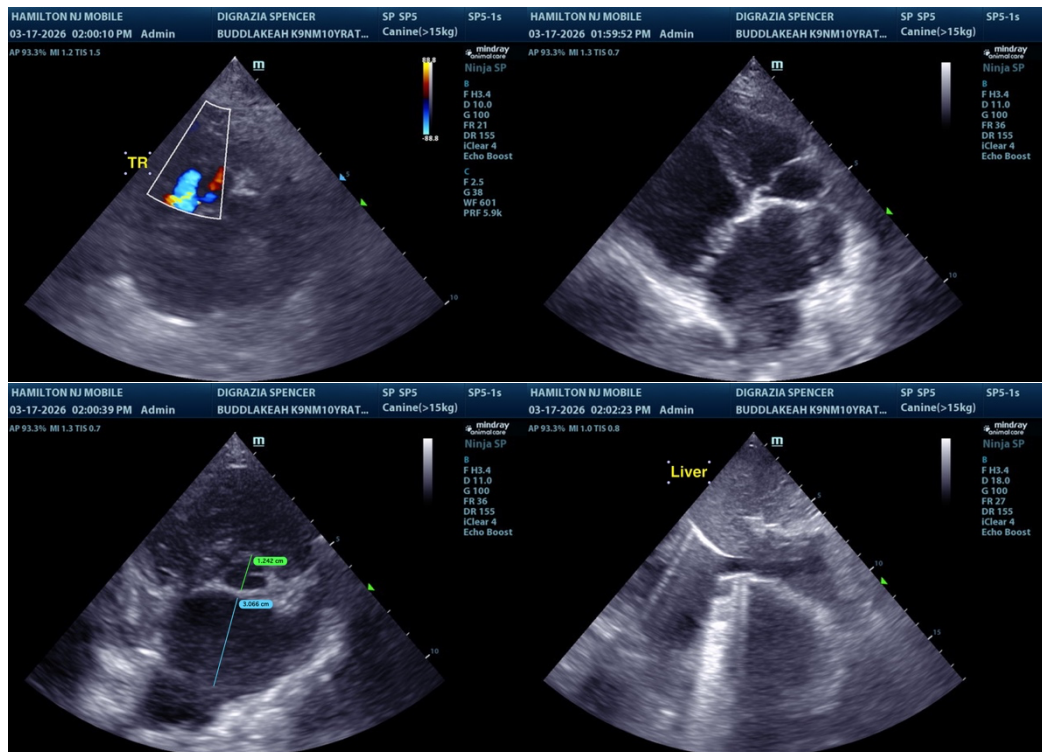
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**ULTRASONOGRAPHIC FINDINGS**

- Chronic mitral valve disease with valve prolapse (ACVIM B2+ - C)
- Pulmonary hypertension – estimate moderate increased pulmonary pressure, no evidence of congestive right heart failure or hepatic congestion

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The degree of LA/LV enlargement is consistent with emerging to current left heart volume overload indicates the current and future risk of complication secondary to MR is significantly elevated. Pimobendan 0.3 mg/kg BID, Furosemide at lowest effective dose 1-2 mg/kg BID, ACE inhibitor 0.5 mg/kg SID is recommended. The clinical signs of this patient may be secondary to emerging congestion, main stem bronchi irritation secondary to LA enlargement or possible concurrent airway disease. Correlation with thoracic radiographs is recommended. Antitussive medication, i.e. Hydrocodone may prove beneficial. Omega fatty acid and mild salt restriction may be beneficial. Exercise restriction with clinical monitoring of response to current medical therapy and recheck echocardiogram in 4-6 months is recommended. Recheck echocardiogram sooner if concerned for progressive left-sided heart disease or pulmonary hypertension. Elective anesthesia is not advised.





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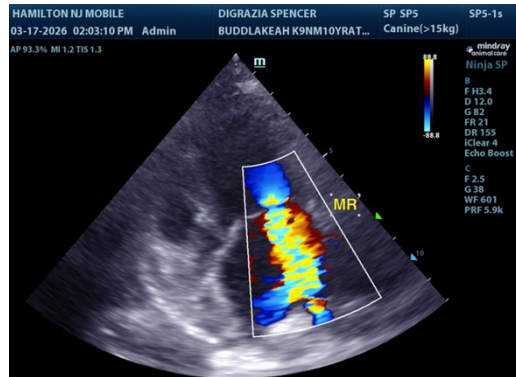
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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](mailto:info@sonopath.com)