

PATIENT

Ted Harpel

SPECIES

Canine

BREED

Pomeranian

SEX

MN

AGE

-

WEIGHT

15 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Kristen
Carpenter

HOSPITAL NAME

Penridge AH

REFERRING VET

Dr. Kristen
Carpenter

INVOICE

10611

DATE

2/3/26

PRESENTING CLINICAL SIGNS

-History:

- Patient not sedated
- - Hx of Stage B2+ /emerging C cardiac disease. Chronic Valve Disease. Last echo 7/8/25
- - Recent acute worsening of cough noted at home. Sleeping RR ~28-30. RR on exam today 44 with mild- moderate respiratory effort - Heart murmur progressed from Grd III to Grade IV L systolic and Grd III R systolic - Patient also has a history of Hyperadrenocorticism - well controlled
- - Current Meds - Current meds: Vetoryl 10 mg PO BID, Vetmedin 1.25 mg PO BID, Amlodipine 1.25 mg PO SID, Hydrocodone 1.25-2.5 mg q8-12 hours, Spironolactone 12.5 mg PO SID, Furosemide 5 mg PO SID, Enalapril 5 mg PO SID, Ursodiol 62.5 mg PO SID, - ** Advised owner to increase Furosemide to 5 mg PO BID pending echo recheck

Abnormal PE/Chem/CBC/UA Results: Diagnostics - Thoracic Rads 2/3/26 - Cardiac silhouette subjectively enlarged with emerging alveolar pattern in the perihilar region. Severe mainstem bronchi compression. Main pulm vv >> main pulm aa. VHS 13.06 VLAS 3.4 - Full bloodwork pending - Blood pressure 2/3/26 - Average 160 mm HG systolic

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	6.3	-	-	2.5	50	82	0.1
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	2.0	1.2	15	3.9	3.6	-

Cardiac Presentation

The echocardiogram in this patient demonstrated severely increased **left atrial** size and mild interatrial septal deviation based on 2 different LA measurement methods. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis. Minor valve prolapse was



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noted. Doppler indicated measurable severe eccentric MR with elevated measured MR velocity 6.3 m/s. The **left ventricle** presented significant increased internal 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 adequate linear morphology. Mild TR was noted on Doppler. Tricuspid valve leaflets exhibited mild thickening. 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 hepatic congestion was noted.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease with mild valve prolapse and elevated MR velocity (ACVIM Stage C)
- Mild tricuspid regurgitation – no overt clinical pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Possible mild progression and LA/LV dimension were noted compared to the previous study, with some degree of measurement variation possible. The degree of LA / LV enlargement consistent with left heart volume overload indicated that the current and future risk of complications is severely elevated. Continued current medical protocol recommended with Furosemide/Spironolactone combination **BID**. Serial monitoring of resting respiration rate, systemic BP, ECG, and renal parameters is recommended. Prognosis remains highly guarded with sonographic and clinical monitoring advised. Recheck echocardiogram is suggested in 4-6 months, sooner if progressive clinical signs are noted. Continued Hydrocodone is recommended. Elective anesthesia is not advised.



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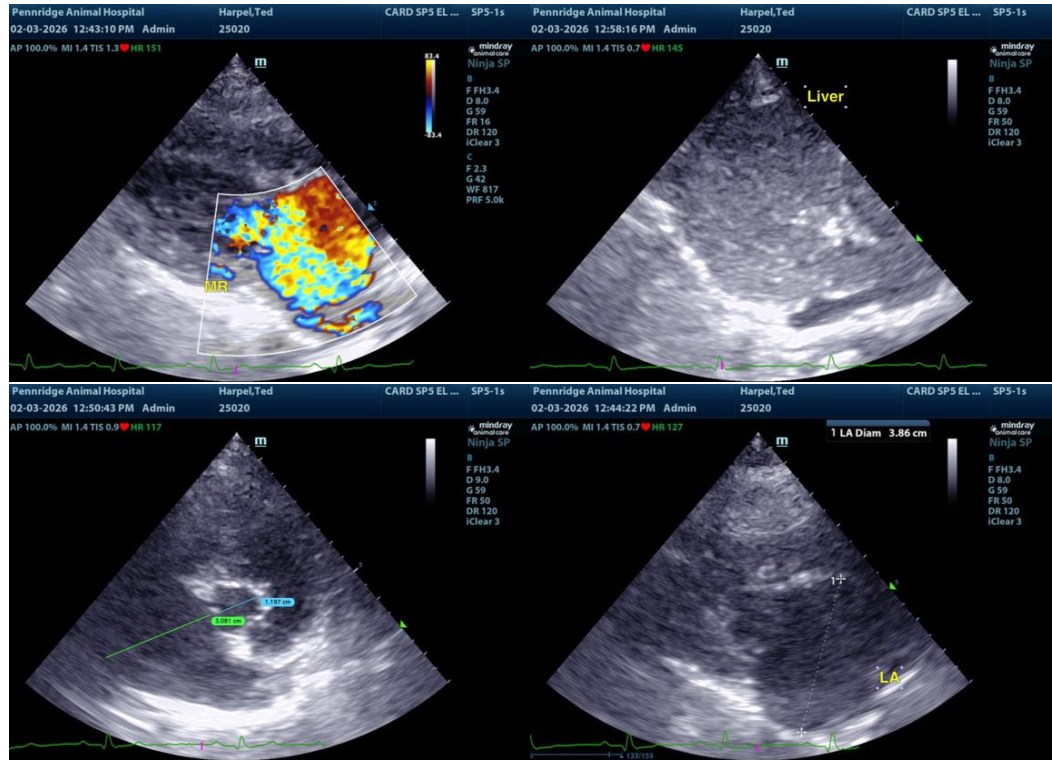
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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