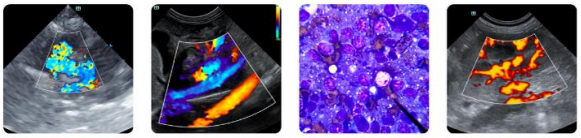

PATIENT

Gizmo Humphries

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

15y 8m

WEIGHT

28.4 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Magnolia VP

REFERRING VET

Dr. Goldstein

INVOICE

10481

DATE

12/18/25

PRESENTING CLINICAL SIGNS

Coughing for years has worsened. Grade IV/VI holiosystolic heart murmur. Has bronchiomalasia. Prev U/S 3/18/2024 (Ultravet) showed PHT w/right sided cardiomegaly. (Report notes attached).

Current Meds: Sildenafil 25mg (1/2 t bid); Torbutrol and flow by O2 for scan.
Abnormal PE/Chem/CBC/UA Results: ALP elevation

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	5.0	4.0 MAX		1.1	35	68	0.1
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	1.0	0.6		2.0	2.2	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 2 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented thickening consistent with endocardiosis with minor valve prolapse. Doppler indicated measurable mild eccentric MR (MR velocity 5.0 m/s). The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. Mild flattening of the IVS was present. 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 increased dimension, normal structure and content. No evidence of masses or definitive chamber overload was noted or chamber overload. **Tricuspid** valvular assessment demonstrated thickening with valve prolapse. Moderate eccentric TR was noted on Doppler (measured TR velocity 4.0 m/s MAX). The **right ventricle** exhibiting increased dimension compared to the LV with normal chordae structure, myocardial echogenicity and free wall thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and mild increased diameter compared to the aorta with mild decreased measured RV outflow velocity with minor pulmonic insufficiency on Doppler. No visible **pericardial** or free pleura fluid was noted. No echographically detectable evidence of cardiac / pericardial tumors was visible.

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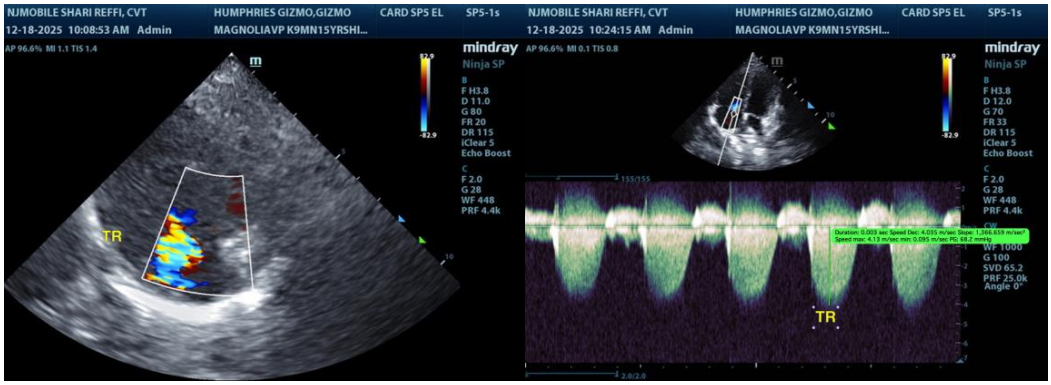
Subjective mild prominent hepatic vasculature was noted without evidence of significant hepatic ingestion or cranial abdomen ascites.

ULTRASONOGRAPHIC FINDINGS

- Compensated mitral valve insufficiency (B1)
- Moderate pulmonary hypertension with right cardiomegaly
- Subjective early compensated hepatic congestion

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The lack of left heart chamber enlargement indicates that the current and future risk of complications secondary to MR is low. Continued Sildenafil 1.0-3.0 mg/kg PO BID – TID, depending upon current clinical presentation, is indicated. Exercise restriction is advised. Given the degree of right-sided cardiomegaly and subjective evidence of early compensated hepatic congestion, concern for impending to emerging right heart failure is warranted. Serial sonographic monitoring is indicated. Recheck echocardiogram is suggested in 6 months, sooner if progressive clinical signs consistent with pulmonary hypertension or evidence of right heart failure. Going forward, this patient will remain at significantly increased risk for right-sided CHF, possible development of malignant arrhythmia, and potential sudden death.



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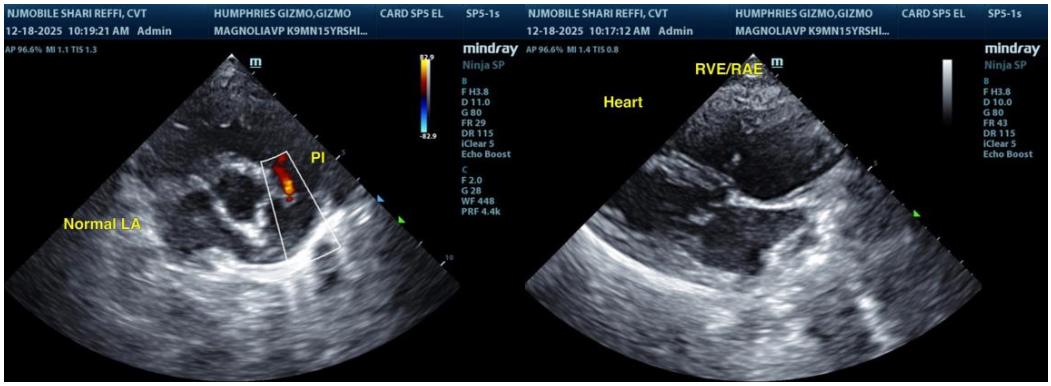

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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