

PATIENT

Taz Rae-Ouderkirk

SPECIES

Canine

BREED

Shih Tzu X

SEX

Neutered Male

AGE

14 Years

WEIGHT

4.36 kg

INTERPRETED BY

Sara Brethel, DVM,
 DACVIM (Cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Main Street AH

REFERRING VET

Dr. Brochu

INVOICE

37562

DATE

6/17/26

PRESENTING CLINICAL SIGNS

Findings: Recheck Cardiac ultrasound. Was in clinic for recheck lab work and RVT noted change in heart murmur on May 22, 2026. Went from Grade 3 to Grade 5. Had cardiac ultrasound Sept 2025 and recheck was recommended. No concerns at home.

Current Medications: Advantage Multi 20- 1 tube once monthly applied to the skin

Abnormal PE/Chem/CBC/UA Results: MCHC 319.6 (323.0-380.0 Retic hemo 23.2 (23.8-28.3) Platelets 418 (120-412) urea (BUN) 11.7 (3.2-11.0) Radiographic Findings Not done in the last 12 months
 Primary Question to Be Answered in This Exam Does this animal need medication?

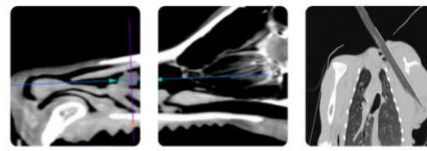
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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	5.9	3.12	2.0	1.91	38.62	--	NM
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	131	1.0	0.75	4.36	2.8	2.7	1.7

Cardiac Presentation

The mitral valve leaflets are moderately thickened with moderate mitral regurgitation posteriorly directed. There is moderate prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular internal dimensions during diastole are increased and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and mild pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology, and the corresponding outflow velocities are within normal limits. There is mild evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS



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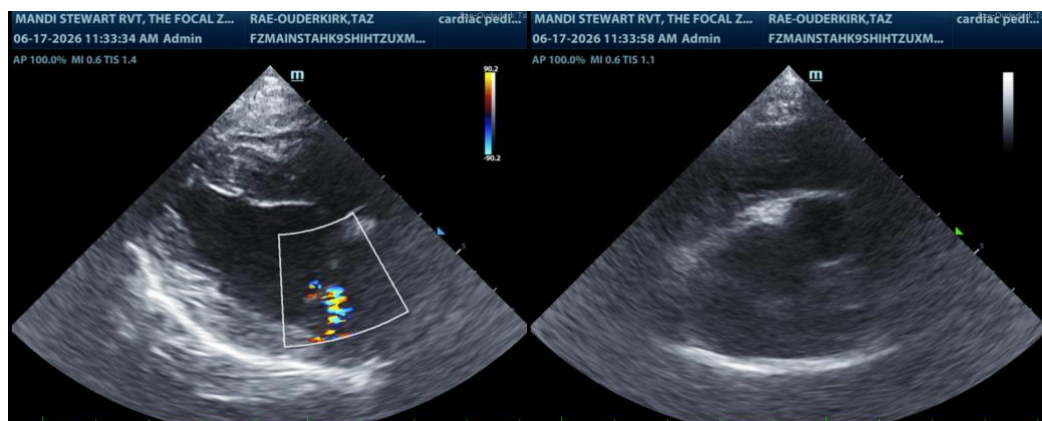
- Degenerative valve disease, ACVIM stage B2
- Severe left atrial enlargement
- Mild degeneration of the tricuspid valve with mild evidence of pulmonary hypertension
- Aortic and pulmonic insufficiency

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

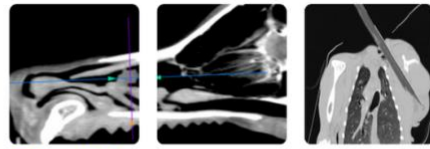
The patient has degenerative valve disease ACVIM stage B2 and pimobendan therapy at 0.27-0.32mg/kg PO q12 is recommended. This will be a lifelong therapy. A recheck echocardiogram is recommended in 4-6 months to monitor the condition since starting pimobendan. A sooner recheck is recommended if the patient develops cardiovascular clinical signs or the heart murmur is worsening in intensity. The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

Elective anesthetic procedures are at an increased risk due to the severity of the left atrial size. If needed, I would recommend having the patient on pimobendan for at least 1-3 weeks prior to elective procedures. Judicious perioperative fluids are recommended due to the increased left atrial size. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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.



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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.

Sara Brethel DVM, DACVIM (Cardiology)

info@SonoPath.com