



PATIENT

Shaggy Marshall

PRESENTING CLINICAL SIGNS

Coughing up liquid , enlarged heart Current meds Enalapril 5mg 1 BID Lasix 1/2 BID

SPECIES

Canine

BREED

Maltese Mix

SEX

MN

AGE

13

WEIGHT

16.4

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	5.2	~3.5	--	2.2	45	78	--
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	1.1	0.84	16.4	4.0	3.7	--

Cardiac Presentation

The echocardiogram in this patient demonstrated significant increased left atrial size with associated mild interatrial septal deviation based on 2 different LA measurement methods. The cranial and caudal mitral valve leaflets presented thickening consistent with endocardiosis. Doppler indicated measurable significant eccentric insufficiency. The left ventricle presented thicknesses with linear contour and moderate to significant increased LV 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 mild thickening with TR on Doppler. TR velocity ~ 3.5 m/s (estimated ~ 50 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.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal Hospital

REFERRING VET

Dr Maniar

INVOICE 26034

DATE
06/08/2026

ULTRASONOGRAPHIC FINDINGS

Primary

- Chronic mitral valve disease with evidence of left heart volume overload Stage C
- Mild to moderate pulmonary hypertension



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is significantly elevated with possible clinical signs secondary to volume overload. Initiate **Furosemide** / **Spironolactone** 1-2 mg/kg BID, **Pimobendan** 0.3 mg/kg BID. **ACEI** is suggested as systemic BP >130. Antitussive medication if coughing is suggested. Omega-3 fatty acid supplementation and mild salt restriction may be beneficial.

No evidence of concurrent right cardiac chamber enlargement, pulmonary artery enlargement, or hepatic congestion. If clinical signs consistent with pulmonary hypertension, i.e. syncope, concurrent sildenafil trial 1-2 mg per kg BID may be indicated.

Prognosis is considered highly guarded to variable and sonographic monitoring is recommended. Recheck echo cardiogram is suggested in 4-6 months, sooner if progressive clinical signs.

Elective anesthesia is not advised. Monitoring of ECG, systemic BP and renal parameters on diuretic therapy is recommended.



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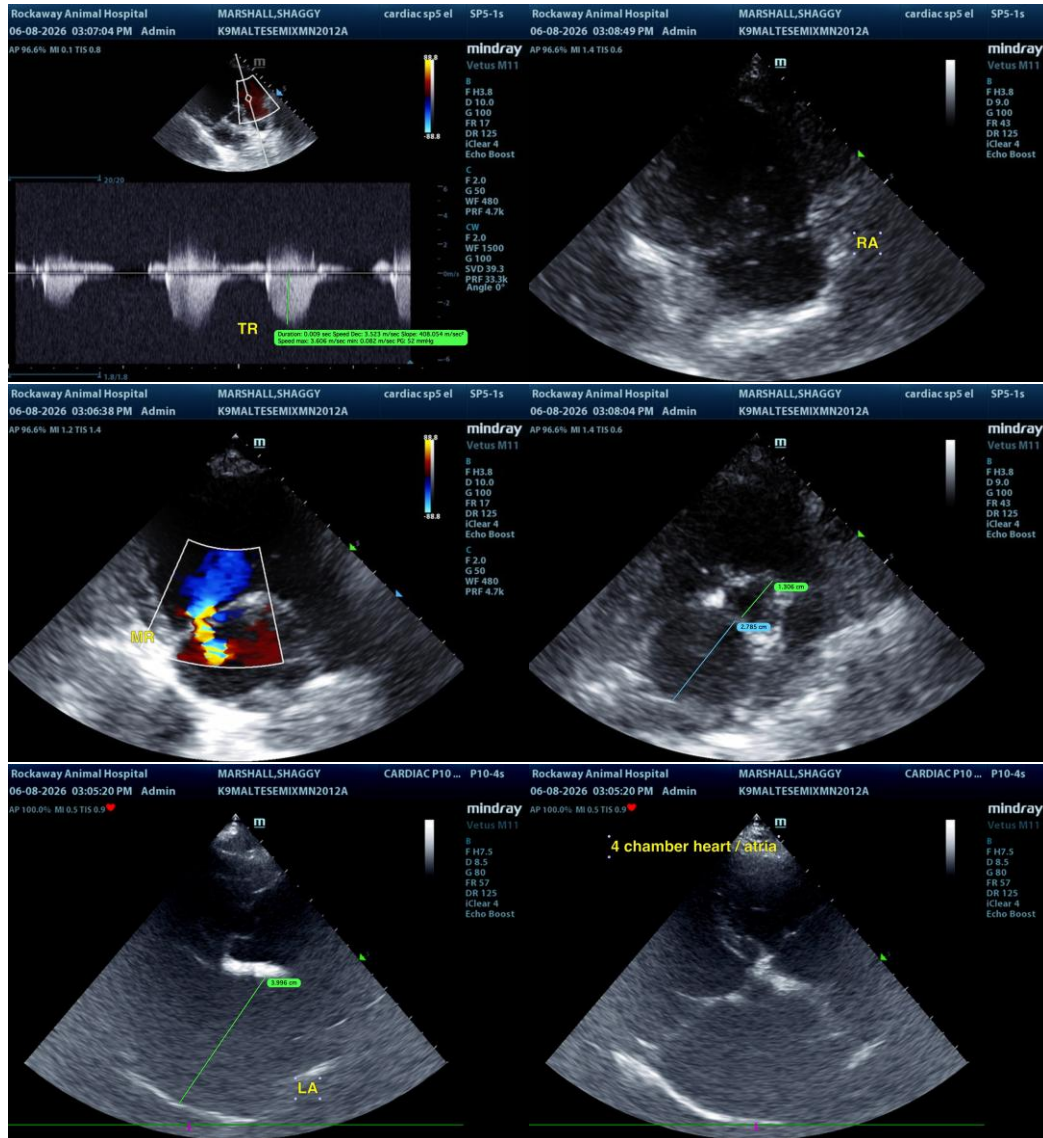
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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