


PATIENT

Jay Velia

PRESENTING CLINICAL SIGNS

Patient presents for a cardiac murmur, grade V/VI and coughing. No current meds.

Abnormal PE/Chem/CBC/UA Results: CBC/Chem: WNL.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART
BREED

Maltese

SEX

MI

AGE

14yr

WEIGHT

11.3lb

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
PATIENT	6.0		1.67	1.7	56	87.8	0.13
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	156	1.6	0.8		3.2	2.9	

Cardiac Presentation

The echocardiogram for this patient presented excessive left atrial size based on 3 separate methods of LA evaluation. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented moderate thickening consistent with endocardiosis. Mild prolapse of the septal leaflet was present. Doppler indicated measurable moderate eccentric insufficiency with borderline increased MR velocity. The left ventricle presented thicknesses with linear contour and mild increased LV volume. 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. Minor TR was present on Doppler. 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). Trace pulmonic insufficiency was present on Doppler. No visible pericardial or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2) with mild MV prolapse.
- Trace to mild TR and pulmonic insufficiency.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

 Pompton Lakes
 Animal Hospital

REFERRING VET

Dr. Taylor McConnell

INVOICE

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The mild to moderate increased LA/LV size indicates that the risk of complication secondary to mitral valve insufficiency is at least mildly elevated. The degree of left heart enlargement was not overtly consistent with congestive criteria while the LA enlargement was not overtly consistent with coughing secondary to mainstem bronchi irritation or compression. This may suggest multifactorial component to the cough including potential concurrent lower airway disease.

Based on EPIC study criteria and evidence of emerging increased left chamber size, Pimobendan 0.3 mg/kg PO BID is recommended. No overt indication for diuretic therapy unless radiographic evidence of pulmonary edema is present. As needed respiratory support and anti-tussive hydrocodone may prove beneficial. Baseline monitoring of resting RR is advised. Screening BP is recommended to assess for evidence of hypertension given borderline increased MR velocity.

Prognosis at this stage is highly variable and serial sonographic monitoring is recommended with a recheck echocardiogram in 6 months, sooner if progressive clinical signs arise.

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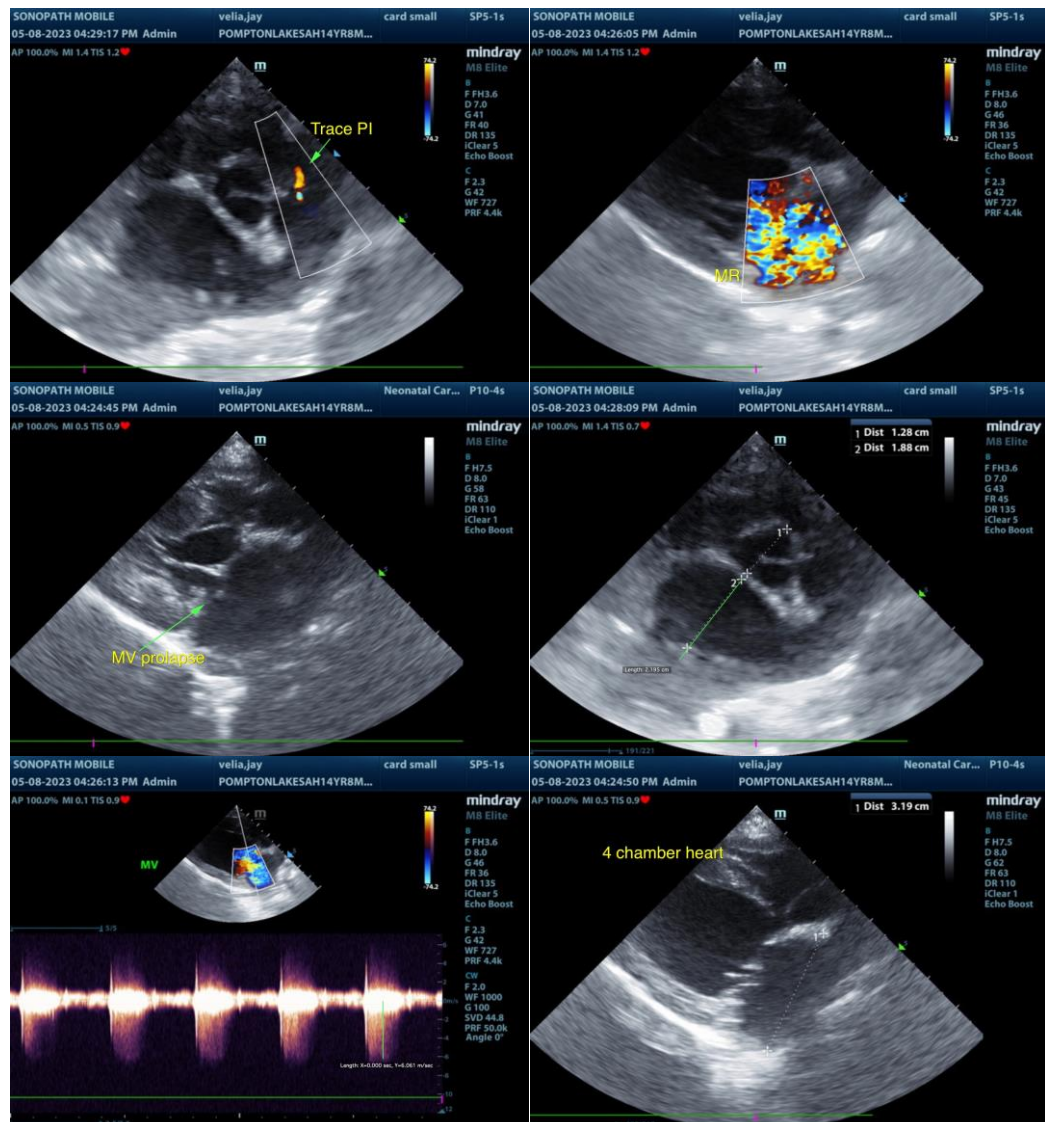
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

SPECIES

Canine

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.

BREED

Maltese

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
mac.daniel@sonopath.com

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