

PATIENT PRESENTING CLINICAL SIGNS

Rex Venuti Jan 10/22 exam for coughing, wheezing and having trouble swallowing. Underweight on exam, M1 mucus/blood coming from mouth(missing most-all teeth). Heart murmur grade 4/6 systolic. Weak femoral pulses. Could not elicit cough with tracheal palpation. Lungs sound M1 raspy. Low body temp. Started Furosemide.

Abnormal PE/Chem/CBC/UA Results: Rads showed cardiac enlargement and pulmonary edema.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Maltese X

SEX

Neutered Male

AGE

13 Years

WEIGHT

3.0 kg

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	<1.6	28-40	40-100	<0.6
PATIENT	5.0	3.3	NM	2.2	47.7	81.2	0.25
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	179	1.2	0.8		2.6	2.4	

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Main Street AH

REFERRING VET

Dr. Morris

INVOICE

34181

DATE

1/12/22

Cardiac Presentation

The echocardiogram for this patient presented moderate to severely excessive **left atrial size** expressed both in the LA/AO and LA max measurements. Deviation of the intraatrial septum towards the right atrium noted, consistent with elevated left atrial pressure. The cranial and caudal **mitral valve** leaflets presented vegetative thickening consistent with endocardiosis. Prolapse of the septal mitral valve leaflet was present. Potential for possible chordae tendineae rupture thought less likely. Doppler indicated measurable eccentric insufficiency. The **left ventricle** presented normal thicknesses with linear contour with moderate 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 concurrent mild vegetative thickening with mild insufficiency on color doppler assessment. 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 infiltrative disease was visible. The cranial **mediastinum and pericardial regions** were free of masses in the visible window. No evidence of arrhythmogenic disease or significant tachycardia.



PATIENT **ULTRASONOGRAPHIC FINDINGS**

Rex Venuti • Chronic mitral valve disease with septal mitral valve leaflet prolapse – consistent with ACVIM Stage C.

SPECIES • Mild TR – estimated pulmonary pressure gradient (approximately 40 mmHg), consistent with mild elevated pulmonary pressure/mild pulmonary hypertension.

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED The moderate to severe LAE indicates that the current risk of complication secondary to mitral valve insufficiency is high, and likely consistent with cardiogenic pulmonary edema. In addition to current Furosemide, Pimobendan 0.3 mg/kg PO BID is recommended. ECG assessment (given the degree of left atrial enlargement) is recommended to rule out underlying tachyarrhythmia as well as assessment of systemic blood pressure. If BP >130, ACE inhibitor medication may also be considered. Hydrocodone may prove beneficial given potential for mainstem bronchi irritation or compression secondary to LA enlargement.

Maltese X

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No other clinical issues such as systolic dysfunction were noted. Monitoring of renal parameters recommended while on diuretic therapy. Ideally, recheck echocardiogram suggested in 4-6 weeks, primarily to reassess mild pulmonary hypertension, or for evidence of progression of left heart enlargement. Given the degree of cardiac changes, potential ongoing risk of episodes of congestive heart failure is elevated.

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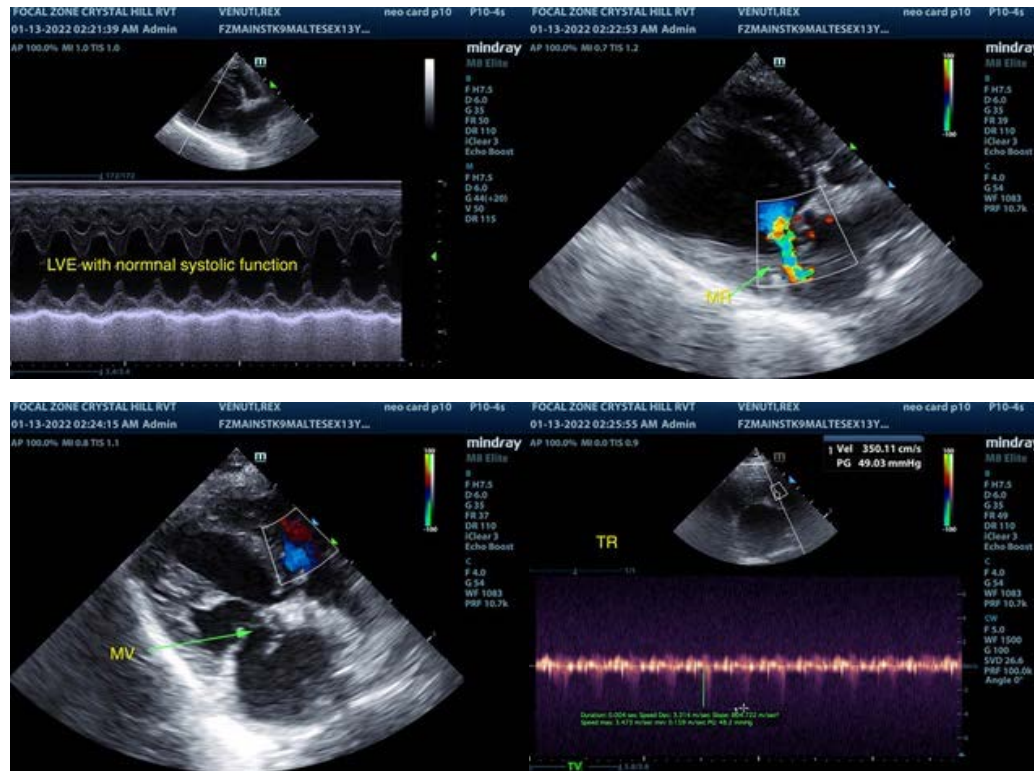
Dr. Morris

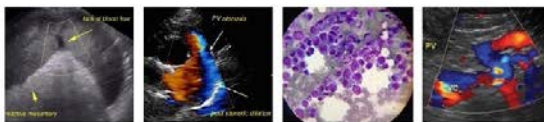
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PATIENT

Rex Venuti

SPECIES

Canine

BREED

Maltese X



SEX

Neutered Male

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

AGE

13 Years

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.

WEIGHT

3.0 kg

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