



PATIENT

Maggie Pitladdo

SPECIES

Canine

BREED

Yorkshire Terrier Mix

SEX

FS

AGE

12 years

WEIGHT

13 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Hillsdale AH

REFERRING VET

Dr. Kenneth Fischer

INVOICE

14984

DATE

9-27-22

PRESENTING CLINICAL SIGNS

Patient with history of heart murmur presents for echo. Current med: furosemide 12.5 mgs BID. Abnormal PE/Chem/CBC/UA Results: SAP 363, platelets 524,000. Radiographs consistent with cardiogenic pulmonary edema.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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			1.85	1.8	34.6	64.7	0.27
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	104	1.8	0.96		3.6	3.6	

Cardiac Presentation

The echocardiogram in this patient demonstrated moderately enlarged **left atrial** size based on 3 different LA measurement methods. Mild deviation of the interatrial septum towards the right atrium, suggestive of increased left atrial pressure, was present. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable moderate eccentric insufficiency. Borderline elevated MR velocity was noted. The **left ventricle** presented thicknesses with linear contour with increased left ventricle 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. 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.

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2 possible emerging stage C)



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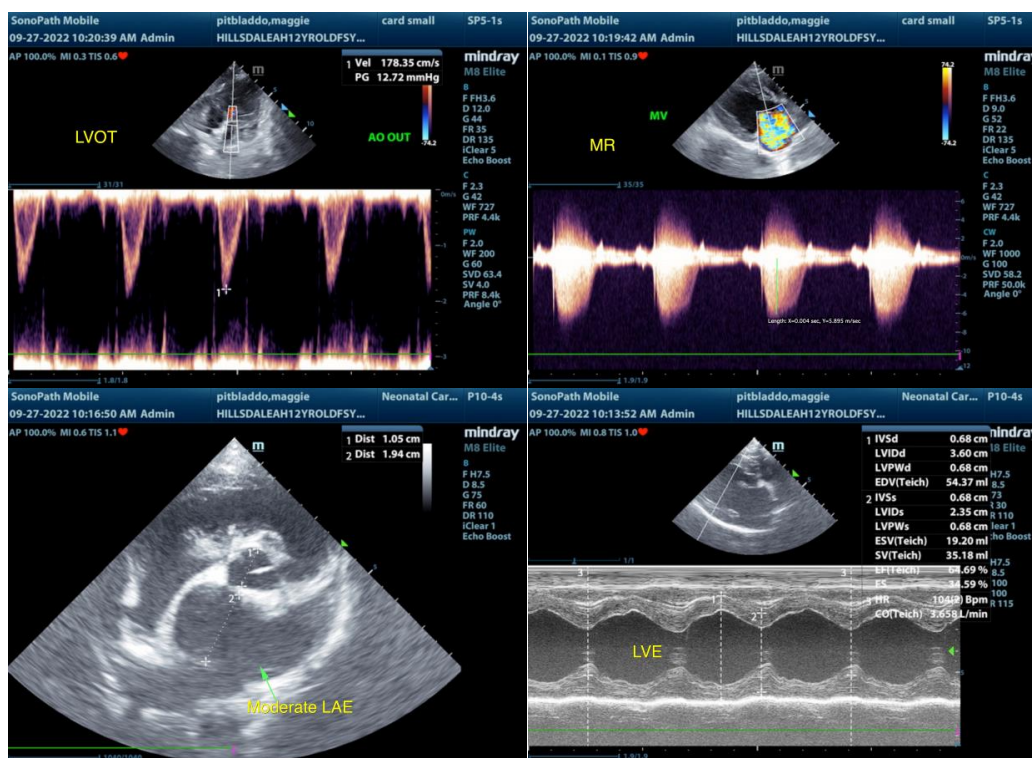
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur secondary to chronic degenerative valvular changes with eccentric mitral valve insufficiency. The moderate LA enlargement along with increased left ventricle volume is suggestive of emerging to early left heart volume overload which indicates that the current and future risk going forward of complication is elevated. No other clinical issues such as LV systolic dysfunction or evidence of clinical pulmonary hypertension were noted.

Pimobendan 0.3 mg/kg PO BID along with the lowest effective dose of diuretic, given the strong suspicion of pulmonary edema, is warranted. ACE inhibitor medications such as Enalapril may be considered if BP >130, (not advised if BP <130). Prognosis at this stage is highly variable and serial sonographic monitoring is recommended. Baseline monitoring of resting respiration rate is suggested. Recheck echocardiogram is recommended in 6 months, sooner if clinical signs progress.



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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.

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