


PATIENT PRESENTING CLINICAL SIGNS

Kira Onclin
 History: Coughing for 48 hours and inappetent. In respiratory distress for 48 hours, QAR, well hydrated, MM pale. Grade 4/6 holosystolic murmur. Wide complex tachyarrhythmia, no pulse deficits noted, lung sounds dull. Performed thoracentesis and drained 560ml from right 8th ICS.

SPECIES

Canine

BREED

Neopolitan Mastiff

SEX

Male Neutered

AGE

10 years

WEIGHT

91lbs

-Current medications: Gabapentin, Furosemide.
 -Abnormal PE/Chem/CBC/UA Results: Unremarkable, 4dx negative.
 -Radiographs: Suggestive of possible congestive heart failure. Heart not clearly identified, severe increase of pulmonary density with marked mixed interstitial and alveolar pattern. Aerograms in caudo ventral lungs and thickened pleural lines. Lung edema.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild thickening of mitral valve leaflets (anterior > posterior) with no prolapse into the left atrial lumen. Moderate to severe eccentric mitral regurgitation. Decreased velocity. Severe left atrial dilation. Increased LV diameter with adequate myocardial function The tricuspid valve appears mildly thickened, with trace tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Mild right atrial and ventricular dilation. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and mildly increased aortic outflow velocities. No obvious aortic or pulmonic insufficiency. No cardiac tumors observed. Irregular tachyarrhythmia noted.

CARDIAC CHART

INTERPRETED BY
 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

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	4.4	3.0	2.2	2.2	30	58	1.2
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	BELOW	BELOW	BELOW	BELOW
PATIENT	200	1.1	0.7	41.3	4.7	6.5	4.5
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

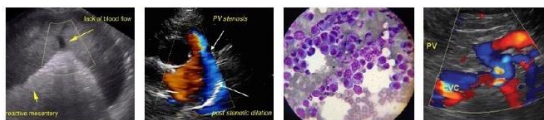
IMAGING PERFORMED BY
 Crystal Hill RVT

HOSPITAL NAME
 St Catharine Animal Hospital

REFERRING VET
 Dr. Gokhale

INVOICE
 30398

DATE
 4/21/23



PATIENT

Kira Onclin

SPECIES

Canine

BREED

Neopolitan Mastiff

SEX

Male Neutered

AGE

10 years

WEIGHT

91lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY

Crystal Hill RVT

HOSPITAL NAME

St Catharine Animal
Hospital

REFERRING VET

Dr. Gokhale

INVOICE

30398

DATE

4/21/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral regurgitation is suspected, although the MR is likely underestimated in this image set. This diagnosis is based upon intact myocardial function and valve thickening in a large breed do with significant LA dilation. A small tricuspid leak is also noted with evidence of mild pulmonary hypertension, this is likely secondary to active congestion. No additional structural issues are identified.

Regardless, there is significant biatrial dilation indicating high risk for complication. **The patient has a marked tachyarrhythmia as well which is suspected to be atrial fibrillation (cannot rule out intermittent SVT/VT without an ECG).** Significant 4 chamber dilation is present with confirms pleural effusion is due to right-sided congestion. Right-sided congestion typically develops secondary to the tachyarrhythmia (i.e., CVD that has now developed into tachycardia-induced cardiomyopathy which most often results in right-sided CHF). The acute development of a rapid arrhythmia is likely what led to clinical signs, and **the diagnosis must be confirmed in order to dictate therapy. Instituting cardiac supportive medications is indicated as below, however until the rate is controlled success will not be easily achieved.** An ECG is highly recommended to confirm. If this is not available or the patient appears unstable, referral to an emergency care center for hospitalization/supportive care and Cardiologist evaluation is highly recommended. If this is not possible for this case, I have advised medical management as below with a guarded to poor prognosis.

Unfortunately, dogs with CHF and arrhythmias are at high risk for complications such as recurrent congestive heart failure, malignant arrhythmias and sudden death. Medications and close monitoring will help give the best prognosis possible, however the average survival time with this condition is <6 months.

Please monitor at home for cough, lethargy, inappetance, collapse/fainting episodes or increase in respiratory rate or effort. Monitoring of sleeping breathing rates is recommended to screen for recurrent CHF at home. Moderate activity restriction is advised. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit

PLAN

Baseline BP and **ECG +/- referral.** Oral medications include the following: Institute Spironolactone 1-2mg/kg PO q12h. Institute Furosemide 1-2mg/kg PO q12h. Institute Pimobendan 0.3mg/kg PO q12h.

Recheck renal panel and BP in 10-14 days, then every 3-4 months lifelong. If doing well and BP >130mmHg, institute an ACEI 0.5mg/kg PO q12h.

A recheck echocardiogram is recommended in 6 months to screen for progression.



PATIENT

Kira Onclin

SPECIES

Canine

BREED

Neapolitan Mastiff

SEX

Male Neutered

AGE

10 years

WEIGHT

91lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY

Crystal Hill RVT

HOSPITAL NAME

St Catharine Animal
Hospital

REFERRING VET

Dr. Gokhale

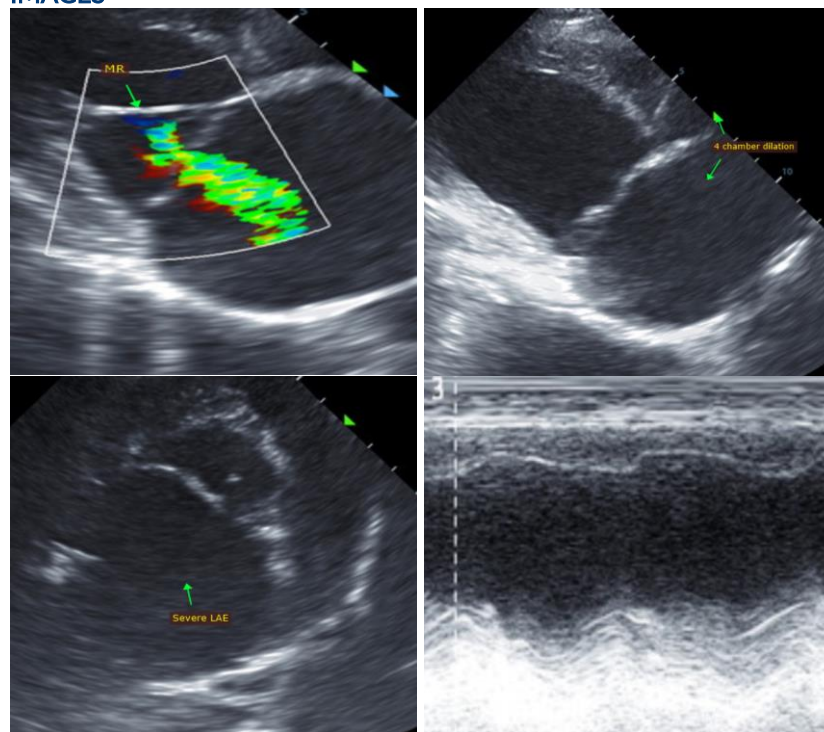
INVOICE

30398

DATE

4/21/23

IMAGES



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.

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com