



PATIENT

Louis Holden

SPECIES

Canine

BREED

Coton de Tulear

SEX

Male Neutered

AGE

10 years

WEIGHT

14.5 lbs

INTERPRETED BY

Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Mass Veterinary Services

REFERRING VET

Dr. Masloski

INVOICE

27618

DATE

11/22/22

PRESENTING CLINICAL SIGNS

History: Louis has been coughing 2-3 times a day for the past 3 weeks. Friday (11/18) he had a coughing episode and then collapsed. He appeared to be back to normal within 10 seconds. A chest film done the following day revealed an enlarged heart. Louis was noted to have a heart murmur in February 2020. He is presently eating well with normal activity and no S/V/D. On exam: NSR, Grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear, mm pink moist. Current medications: diphenoxylate with atropine 2.5mg-1/2 tab twice a day *Sedated with propofol for study

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: Significant LV dilation with hyperdynamic myocardial function.

Left atrium: The left atrium is severely dilated.

Mitral valve: Diffuse thickening of mitral valve leaflets with prolapse into the left atrial lumen. Ruptured chordae tendineae is visualized. Lack of coaptation in systole. Severe eccentric mitral regurgitation with a decreased velocity.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Mild RV dilation.

Right atrium: Mild right atrial dilation.

Tricuspid valve: The tricuspid valve appears mildly thickened, with mild tricuspid regurgitation. Normal velocity.

Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. The MPA appears mildly dilated. Normal pulmonic outflow velocities with laminar flow. No PI.

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

Heart rhythm: ECG reveals a sinus rhythm with an average HR of 150bpm.

2-Dimensional Measurements

Ao diam (cm)	1.3
LA diam (cm)	3.5
LA:Ao (Swe)	2.7
IVS thickness (cm)	0.5
LVID diastole (cm)	3.8
PW thickness (cm)	0.6
LVID systole (cm)	2.1
FS (%)	55

Doppler Measurements

PV Vmax (m/s)	0.6
AoV Vmax (m/s)	1.1
MR Vmax (m/s)	4.1
TR Vmax (m/s)	2.7
TR PG (mmHg)	30

INTERPRETATION OF THE FINDINGS

The cause of the murmur is chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. Severe left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. A ruptured chordae tendineae is visualized, which may dramatically raise this risk. No additional issues such as pulmonary hypertension are identified.

The finding of severe disease and a ruptured chord likely explains a recent collapse episode, and puts the patient at exceedingly high risk for congestive heart failure. Immediate medications are warranted lifelong as below even without reported respiratory distress. Baseline CXR are recommended.



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The average survival time of canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

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RECOMMENDATIONS

- Baseline CXR and BP are recommended.
- Institute Lasix/furosemide 1-2mg/kg PO q12h.
- Institute Spironolactone 1-2 mg/kg PO q 12h.
- Institute Pimobendan 0.25-0.3 mg/kg PO q12h.
- Cough suppression to improve QOL can also be considered (hydrocodone, 0.2-0.4mg/kg up to q4-6h PRN) for any residual mechanical cough in the face of normal sleeping respiratory rates.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.
- Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home.
- Elective anesthesia is not advised.
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

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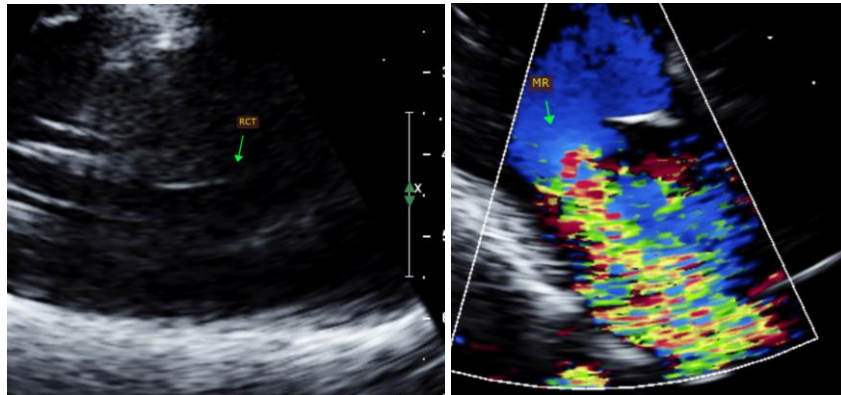
PLAN

- Monitor renal values and BP in 1-2 weeks, then every 3-4 months lifelong. If doing well and BP >130mmHg, institute ACEI 0.5mg/kg PO q12h.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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IMAGES



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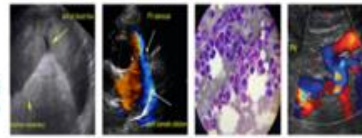
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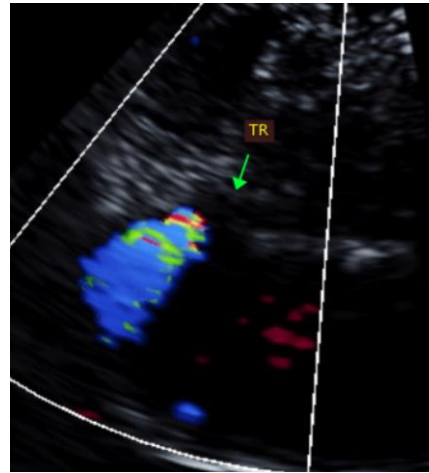
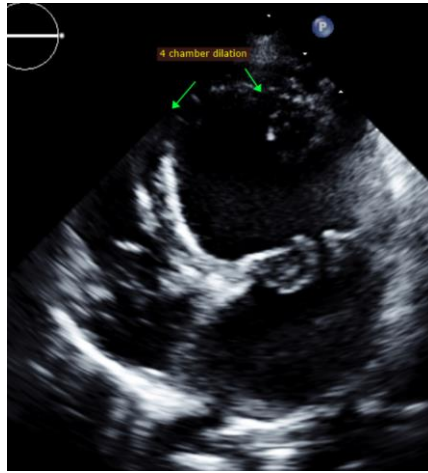
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

INTERPRETED BY

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Echocardiogram performed by:

Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)

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