

**PATIENT**

Teller Carnavale

PRESENTING CLINICAL SIGNS

History: Coughing off and on for about a month. Grade III systolic murmur.

-Pertinent abnormal PE/Chem/CBC/UA Results: K: 5.5m ALT: 245, ALP: 1287, remainder NSF.

-Current medications: Furosemide 20mg PO BID, Enalapril 8mg PO BID, Codeine 30mg PO BID, Proin 75mg 1/2 tab PO BID, Levetiracetam 250mg PO TID, Thyro-Tabs 0.5mg.

SPECIES

Canine

-Blood pressure: two readings provided – 1) 147/96/113, 156/100/119

-Sedation used: Sedation not required for scan.

-STAT: Not requested.

BREED

Beagle mix

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.

Significant cardiomegaly. Concern for early CHF.

SEX

Male Neutered

ECHOCARDIOGRAM FINDINGS

2D, m-mode and Doppler imaging are available. Diffuse thickening of mitral valve leaflets (anterior > posterior) with minimal prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Significant LV dilation with hyperdynamic myocardial function. The tricuspid valve appears normal with no tricuspid regurgitation. Normal right heart. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No pulmonic and trace aortic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

AGE

14 years

CARDIAC CHART**WEIGHT**

38.5lbs

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	4.5	NA	NM	2.2	39	69	NM
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	85	0.83	1.1	17.5	4.5	5.4	3.3
*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							
*Note: All measurements based upon multi-modal images and methods. An average value is reported.							
Adapted from June Boon, Veterinary Echocardiography, 1998				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
Hansson et al, Vet Rad and Ultrasound 2002				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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)

INTERPRETED BYMaggie Machen
Lamy, DVM, DACVIM
(Cardiology)**HOSPITAL NAME**Claws N' Paws Animal
Hospital**REFERRING VET**

Dr. Singh

INVOICE

21533

DATE

10/14/21

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valve disease causing severe mitral regurgitation. Severe left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. A small aortic leak is noted; however, the reported blood pressure is reasonable. No additional issues are identified.

The described cough is likely multi-factorial in origin, including a mechanical component due to cardiomegaly, possible concurrent airway disease and/or early CHF given the severity of disease. In light of the clinical signs, chest radiograph findings and severity of disease, there is concern for imminent CHF and full lifelong cardiac support is recommended as below including Lasix therapy. Depending on clinical response to the medications, **cough suppression may also be useful**. Monitoring of sleeping breathing rates in the future will be paramount to determine the origin of any future cough. The average survival 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. Monitoring of renal values is recommended lifelong.

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a worsening cough, labored breathing, exercise intolerance or collapse episodes.

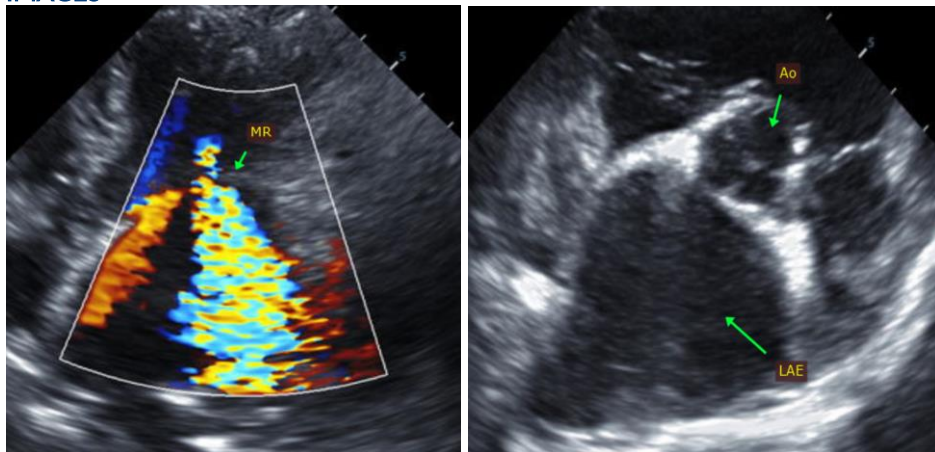
PLAN

Administer Pimobendan 0.3mg/kg PO q12h. Administer low dose furosemide/Lasix 1 mg/kg PO q12h. Administer Enalapril 0.5mg/kg PO q12h. Administer spironolactone 1-2mg/kg PO q12h. If the cough persists despite therapy, consider hydrocodone with homatropine for quality of life (0.2-0.4mg/kg PO up to q4-6 hours PRN).

A renal panel and BP every 3-4 months lifelong.

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise/persist.

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.

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