



PATIENT

Lacie Greene

SPECIES

Canine

BREED

Labrador

SEX

Female Spayed

AGE

2011

WEIGHT

72.3lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Chadwell Animal
Hospital

REFERRING VET

Dr. Haskin

INVOICE

21140

DATE

9/21/21

PRESENTING CLINICAL SIGNS

History: Longstanding History of chronic otitis, chronically takes apoquel and topical ear medications. Presented 9/18 for not eating, bloated belly, dry heaving, and drinking a lot of water. Fluid wave present on abd palp but belly soft and non-painful. chronic otitis, but no other significant findings. Abdominocentesis yielded clear, colorless fluid. Requesting an echo based on limited chest check during abdominal scan.

- Pertinent abnormal PE/Chem/CBC/UA Results: Bloodwork shows- ALB 2.4, chol 97 remainder of values WNL.
- Current medications: Patient treated with Cerenia and Entyce over weekend. No change in status per owner as of 9/20 AM.
- Sedation used: Not needed.
- STAT: Declined by Doctor.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Severe left ventricular dilation with diminished systolic function. Increased EPSS and increased sphericity. Decreased LV wall thickness. Severe left atrial enlargement. The mitral valve appears mildly thickened, with no obvious prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation; decreased velocity. The tricuspid valve appears mildly thickened. Moderate right atrial and ventricular dilation. Mild to moderate tricuspid regurgitation. TR velocity consistent with early pulmonary hypertension. The aortic and pulmonic outflow velocities are decreased. No AI. No PI. No pericardial or pleural effusion noted. No obvious cardiac tumors.

CARDIAC CHART

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	4.0	2.8	NM	2.3	8	17	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	115	0.6	0.55	32.8	4.6	6.5	6.0
*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)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				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)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, this patient has end-stage cardiomyopathy and systolic dysfunction. This is causing dilation and volume overload of both the left and right heart and severe biatrial dilation. Moderate MR and mild to moderate TR are identified with mild pulmonary hypertension. No additional issues are seen.

Systolic failure can be primary in nature (DCM) or secondary to taurine deficiency, hypothyroidism, myocarditis, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. In a geriatric large breed, DCM is certainly a reasonable diagnosis. Diet history should be obtained due to the recent correlation between grain free/boutique/exotic diets and cardiomyopathy (with a diet change and/or supplementation if indicated). Thyroid status can be assessed, a cTnI submitted, etc., however prognosis at this stage is unchanged.

Given the severity of disease seen here, the ascites is certainly cardiogenic in origin and immediate treatment is recommended as below. No dyspnea is reported; however, should the patient become unstable, highly recommend hospitalization for oxygen support and IV therapy. Even if the response to medications is good, this patient will always be at high risk for recurrent CHF, development of syncope, malignant arrhythmias and/or sudden death going forward. The prognosis is poor at this stage in the disease process, with an average survival time of <6 months.

Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Moderate activity restriction is advised. Monitor for development of a cough, worsening labored breathing, abdominal distention, exercise intolerance or collapse episodes in the future. Monitoring of sleeping breathing rates at home is recommended to assess response to medications and recurrence of CHF in the future.

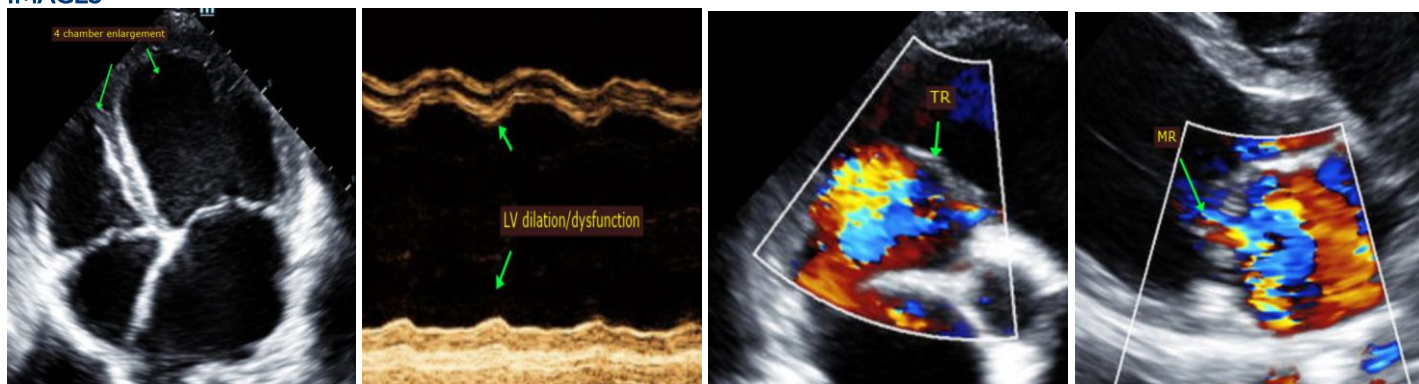
PLAN:

If patient appears unstable or tachypneic, consider referral for 24-hour supportive care. A baseline ECG and BP are recommended. Recommend the following oral medications: Institute aldosterone antagonist Spironolactone 1-2mg/kg PO q12h. Institute diuretic furosemide 1-2mg/kg PO q12h. Institute Pimobendan 0.3mg/kg PO q12h. Institute taurine supplement 1000mg PO q12h.

Recommend recheck renal panel and blood pressure in 1-2 weeks to ensure tolerance to medications. If BP >130mmHg and doing well at home, institute ACEI 0.5mg/kg PO q12h at that time.

Recheck echocardiogram in 6 months, sooner if problems arise in the interim.

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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