



PATIENT

T-Bone Hurst

SPECIES

Canine

BREED

American Staffordshire Terrier

SEX

Male Intact

AGE

4 years

WEIGHT

138.9lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Kacie Edwards

HOSPITAL NAME

Boren Veterinary Medial Teaching Hospital

REFERRING VET

Oklahoma State University

INVOICE

29282

DATE

2/28/23

PRESENTING CLINICAL SIGNS

History: Presented for possible CHF. Recent loss in muscle tone with increased belly size. Eats Blue Diamond Kibble with raw beef. Received Lasix and Pimobendan before presentation. Patient is heartworm negative Severe ascites. BP: 120mmHg.

-Current medications: Furosemide at 2mg/kg Q8h, Pimobendan 0.25mg/kg Q12h, and Trazadone 3mg/kg Q8h.

ECHOCARDIOGRAM FINDINGS

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

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	4.5	2.3	2.3	1.8	18	30	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	NM	1.4	NM	63.0	4.9	8.5	6.9
*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)

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 TR are identified which are likely secondary to dilation. No additional issues are seen. **A full screening ECG is recommended, as there is certainly an irregular rate and rhythm noted throughout the study with highly variable heart rates. Atrial fibrillation should be ruled out, which would warrant further therapy.**



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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 4-year-old large breed, primary DCM is possible; however, the diet should be considered as a possible contributing factor. Consider change to a more standard option (Hills, Science Diet or Purina). Additionally, supplementing with Taurine is recommended. Thyroid status can be assessed, a cTnI submitted, etc., however prognosis at this stage is unchanged.

Given the severity of disease seen here in addition to reported ascites, biventricular CHF is suspected, and 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.

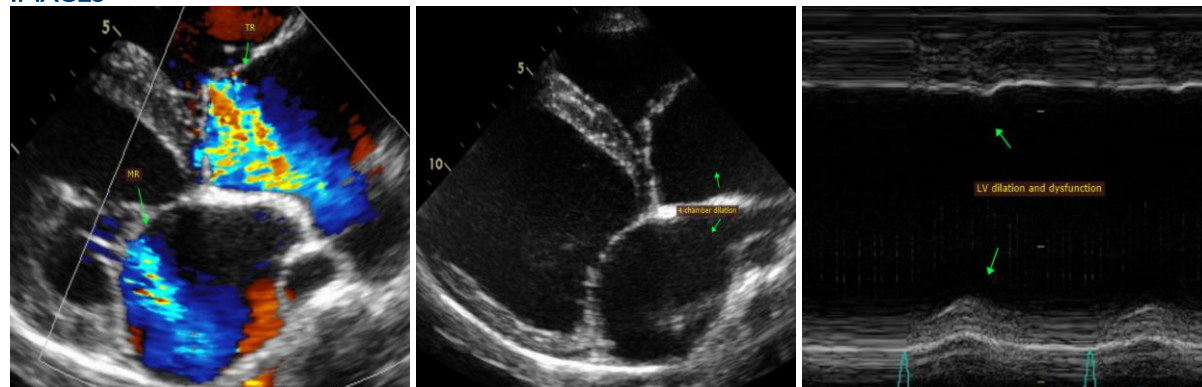
PLAN:

If patient appears unstable or tachypneic, highly recommend continued hospitalization for 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. Consider diet change, thyroid status, etc.

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





PATIENT

T-Bone Hurst

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.

SPECIES

Canine

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

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