



**PATIENT**

Roscoe White

**SPECIES**

Canine

**BREED**

Pitbull/Catahoula

**SEX**

Male Neutered

**AGE**

2 years

**WEIGHT**

65lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Nicole Gotfredson

**HOSPITAL NAME**

Buffalo Veterinary  
Clinic

**REFERRING VET**

Dr. Gotfredson

**INVOICE**

24354

**DATE**

5/24/22

**PRESENTING CLINICAL SIGNS**

History: Adopted 2 weeks ago. Grade 4 heart murmur, owner reports no coughing or exercise intolerant.

-Current medications: Lasix 40mg SID, Enalapril 10mg-1 AM, 1/2 PM

-Abnormal PE/Chem/CBC/UA Results: Heartworm test-negative.

-Radiographs; Show enlarged rounded heart.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The TV leaflets are abnormal with thickening and lack of coaptation in systole. Apical displacement. Tethered septal leaflet. No obvious stenosis based upon 2D imaging (not assessed on Spectral). Distorted RV papillary musculature. Severe tricuspid regurgitation is suspected, although not visualized with severe right atrial and ventricular enlargement. The LV diameter is normal with borderline myocardial function. LA dimension is normal. The mitral valve appears normal with no mitral regurgitation. Normal aortic and pulmonic outflow velocities. The pulmonic valve is not well visualized; however, no obvious stenosis is suspected. The aortic valve is normal with no aortic insufficiency. No obvious congenital shunts. No ascites, pleural or pericardial effusion.

**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	NA	NM	NM	1.2	28	50	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	1.2	0.6	29.5	2.6	3.2	2.3
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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**

Severe tricuspid valve dysplasia is identified. This is causing suspected severe tricuspid regurgitation and right atrial/ventricular dilation. The remainder of the study is largely normal without obvious concurrent issues. That being said, additional congenital abnormalities are easily missed without advanced imaging. Highly recommend referral to a local Cardiologist for advanced diagnostics in any congenital case if possible.



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TVD is a relatively uncommon form of inherited heart disease, although common in Labrador Retrievers. Little is known about the long-term effects of medical therapy in patients with severe TVD prior to the onset of congestive failure signs. Patient will always be at high risk for right-sided CHF and/or development of arrhythmias such as atrial fibrillation, collapse and sudden death going forward.

Surgical reconstruction/repair is available as an option, though it requires use of cardiopulmonary bypass, and such procedures are only offered at select universities. Referral to an academic institution is recommended if interested in pursuing surgical options.

In a 2-year-old dog, the finding of severe right heart dilation is concerning, and this condition will no doubt limit life span. Medical therapy is indicated including Spironolactone, given high risk for congestive heart failure, no obvious indication for Lasix at this time. Close monitoring is advised. There is high risk for arrhythmias in these cases and baseline ECG is recommended.

The long-term prognosis is guarded to poor; however, outcome varies widely among TVD patients. Activity restriction is advised. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

Elective anesthesia is not advised. If this dog is part of a breeding program, there is a clear genetic link to this disease and the breeding line should be reassessed.

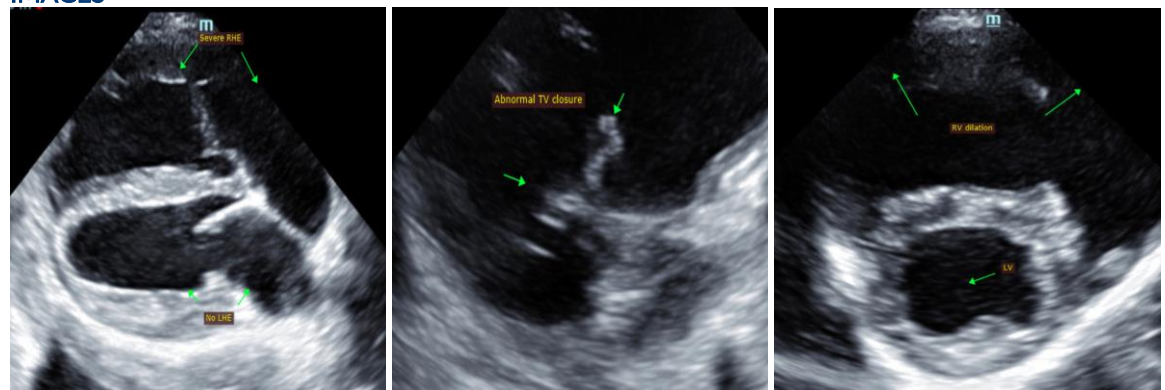
Monitor closely at home for development of any associated clinical signs, including abdominal distention, labored breathing, and/or collapse episodes or lethargy.

**PLAN**

Highly recommend referral as discussed. Consider baseline ECG. Administer heart muscle support Pimobendan (Vetmedin) 0.3mg/kg PO q12h. Administer vasodilator/anti-fibrotic Benazepril or Enalapril 0.5mg/kg PO q12h. Administer aldosterone antagonist Spironolactone 1-2mg/kg PO q12h (available in 25 and 50mg tablets). No indication for Lasix at this time.

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

**IMAGES**





**PATIENT**

Roscoe White

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.

**BREED**

Pitbull/Catahoula

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

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