



PATIENT

Lemmie CGDB

SPECIES

Canine

BREED

Labrador Retriever

SEX

Female

AGE

1 year

WEIGHT

26.5kgs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Nigel Gumley, DVM

HOSPITAL NAME

Cedarview Animal
Hospital

REFERRING VET

Dr. Gumley

INVOICE

24260

DATE

5/18/22

PRESENTING CLINICAL SIGNS

History: Was presented to rDVM for spay and noted heart murmur. Grade 3/6 right sided (tricuspid) region murmur. MM pink. Lungs clear.
-BP: 109/59, 108/59, 116/60, 121/70mmHg.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Mild right-sided cardiomegaly. No obvious evidence of CHF.

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 tricuspid inflows. Distorted RV papillary musculature. Severe tricuspid regurgitation with severe right atrial and ventricular enlargement. TR velocity is mildly elevated. The LV diameter is normal with adequate myocardial function. LA dimension is normal. The mitral valve appears normal with no mitral regurgitation. Normal aortic and pulmonic outflow velocities. The pulmonic valve appears normal with no insufficiency or stenosis. 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		3.1	NM	1.3	28	56	0.33
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	76	1.4	0.8	26.5	2.2	3.2	2.0
*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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Severe tricuspid valve dysplasia is identified. This is causing severe tricuspid regurgitation and right atrial/ventricular dilation. The remainder of the study is largely normal without obvious concurrent issues. 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 1-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. 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.

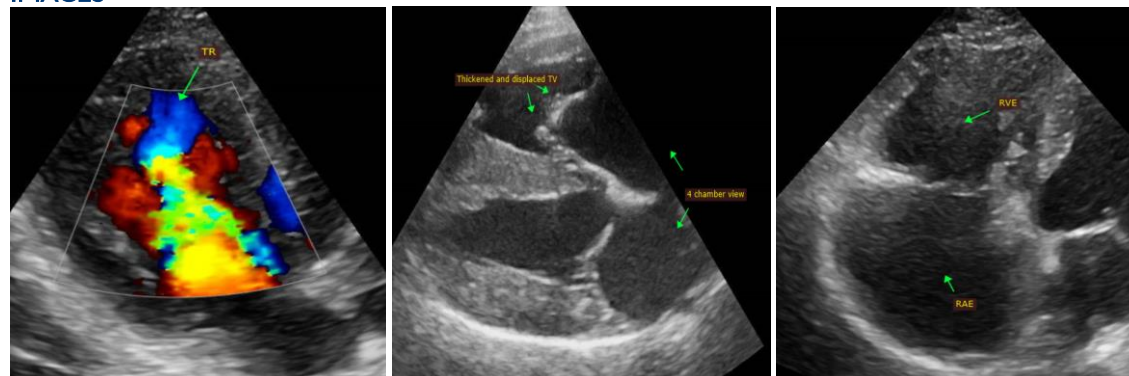
Monitor closely at home for development of any associated clinical signs, including abdominal distention, labored breathing, and/or collapse episodes or lethargy.

PLAN

Consider 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).

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

IMAGES





PATIENT

Lemmie CGDB

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.

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Labrador Retriever

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

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