



**PATIENT**

Emily Cox

**PRESENTING CLINICAL SIGNS**

History: Enlarged aorta. No clinical signs.

**SPECIES**

Canine

**BREED**

Labrador Retriever

**SEX**

Female Spayed

**AGE**

12 years

**WEIGHT**

62lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Lindsey Daniel,  
DVM

**HOSPITAL NAME**

Crawford Road  
Animal Hospital

**REFERRING VET**

Dr. Hassler

**INVOICE**

21445

**DATE**

10/10/21

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Mild thickening of the mitral valve leaflets with no obvious prolapse into the left atrial lumen. No mitral regurgitation with normal left atrial dimension. LA:Ao is inverted due to aortic root dilation. The aortic root and ascending segment are significant dilated (3.6cm in cross section). Normal LV diameter with adequate myocardial function. Normal LV wall thickness. The tricuspid valve appears normal in form and function. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic outflow velocities; laminar flow. No obvious aortic regurgitation seen; however, this is not extensively examined. No pulmonic insufficiency with normal velocity indicative of normal pulmonary pressures. No pericardial or pleural effusion noted.

**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	NA	1.0	0.9	31	53	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	120	NM	0.75	28.1	2.7	4.4	3.0
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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**

The cardiac structure and function in this patient is overtly normal. The aortic root and ascending segment are notably dilated however, which is quite an unusual finding in small animals. Rule outs for this finding include systemic hypertension, coarctation of the aorta (distal narrowing), annuloaortic ectasia (dilation due to Marfan-like syndrome), aortic dissection (unlikely), normal variant, other. A screening BP is highly recommended on both the forelimbs and pelvic limbs to assess for discrepancy. If systemic pressures are normal and consistent cranial and caudal, coarctation is considered unlikely. Regardless, the patient may have increased risk for aortic



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aneurysm/rupture and sudden death in the future. Advanced imaging can also be considered, to rule out the listed abnormalities and assess risk. The possibility of a normal variant remains.

**SPECIES**

Canine

No cardiac medications are indicated at this time. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**BREED**

Labrador Retriever

Prognosis is guarded prior to further evaluation. Mild activity restriction is advised.

**PLAN**

Assess BP as discussed. Consider advanced imaging as discussed.

**SEX**

Female Spayed

Recheck echocardiogram is recommended in 1 year, sooner if any clinical signs arise.

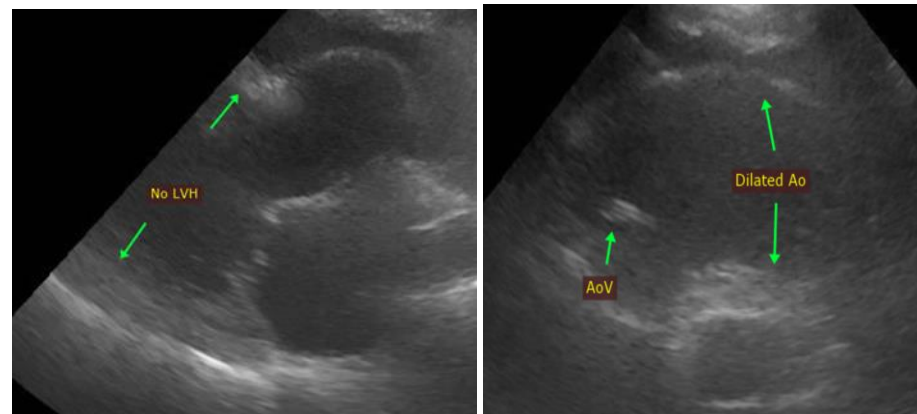
**AGE**

12 years

**IMAGES**

**WEIGHT**

62lbs



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Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

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.

**IMAGING PERFORMED BY**

Lindsey Daniel,  
DVM

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.

**HOSPITAL NAME**

Crawford Road  
Animal Hospital

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