



PATIENT

Xena Pawsitively
 Furever

SPECIES

Canine

BREED

Labrador Mix

SEX

Female Intact

AGE

2 months

WEIGHT

7.1lbs

INTERPRETED BY

Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Nith Valley Animal
 Hospital

REFERRING VET

Dr. Yenssen

INVOICE

46243

DATE

12/17/25

PRESENTING CLINICAL SIGNS

History: Litter was a rescue from Manitoba at beginning of Nov 2025. Possibly exposed to Canine Herpes Virus Type 1. Presented for second vaccines on Dec 15, 2025, noted Grade 3/6 heart murmur, on exam appears thin and unwell. MM pale. CRT>3 sec. No recent vomiting or diarrhea since last visit. Was seen Nov 22, 2025, for vomiting and diarrhea. No murmur was noted then.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Normal MV leaflets with no obvious prolapse. Trivial mitral regurgitation. No significant left atrial enlargement. Mild LV dilation in both systole and diastole (LVIDdN: 1.85, LVIDsN: 1.18) with borderline dysfunction. Normal LV wall dimensions. The LV has a spherical appearance. The tricuspid valve appears subjectively normal, trace tricuspid regurgitation. The right heart is normal. No overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. No obvious aortic abnormalities identified, however the LVOT velocity is mildly elevated. Laminar flow. Pulmonic outflow velocities are normal. Trace aortic and pulmonic insufficiency. No obvious congenital shunts. No pericardial or pleural effusion noted. No cardiac tumors observed.

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			1.5	1.3	40	73	0.1
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	200	1.9	1.4	3.2	1.8	2.6	1.6
*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)
*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)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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

Mild abnormalities are identified in this study. First, the only cause of a murmur identified is mildly increased flow velocity through the aortic root. The aortic valve and LVOT appear normal, making this most likely physiologic in origin. That being said, this puppy is extremely young, and a small concurrent aortic insufficiency may give some concern for development of a stenosis in the future. This type of outflow abnormality can worsen up to a year of age; however, it may also resolve as the puppy grows. Of additional and separate concern, the LV measures mildly enlarged in both systole and diastole with borderline dysfunction. The relevance of this is unknown in this



PATIENT

Xena Pawsitively
 Furever

young dog. The patient does have a history of a viral infection and GI upset, and myocarditis (current or in utero) cannot be ruled out. A cardiac troponin level could be considered versus simply reassessing in the future. No additional issues are identified at this time. Given the unusual nature of the findings, consider a referral in this case for future evaluations.

SPECIES

Canine

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

BREED

Labrador Mix

No cardiac contraindication for general anesthesia at this time; however, if referral is elected, this should be done prior to proceeding.

SEX

Female Intact

PLAN

Consider referral as discussed. Consider a baseline cardiac troponin level (cTnI) due to the unusual/atypical findings in history.

AGE

2 months

Recommend recheck echocardiogram in 6 months to reassess the findings, sooner if any clinical signs arise in the interim.

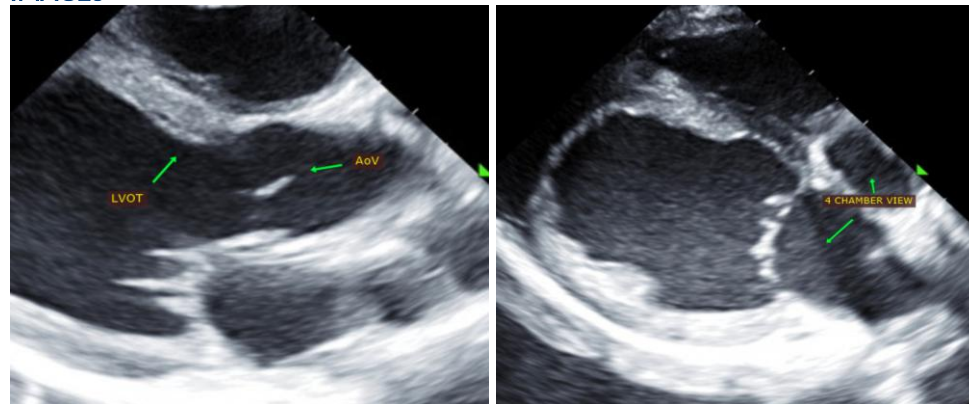
WEIGHT

7.1lbs

IMAGES

INTERPRETED BY

Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)



IMAGING PERFORMED BY

Amanda Stewart

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.

HOSPITAL NAME

Nith Valley Animal
 Hospital

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.

REFERRING VET

Dr. Yenssen

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

INVOICE

46243

DATE

12/17/25