



PATIENT

Erick Bender

SPECIES

Canine

BREED

Mix

SEX

Male Neutered

AGE

15 months

WEIGHT

34lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Marvis McCormick-Rantze, DVM

HOSPITAL NAME

Lanier Animal Hospital

REFERRING VET

Dr. McCormick-Rantze

INVOICE

22692

DATE

2/18/22

PRESENTING CLINICAL SIGNS

History: Presented in Jan 2021 as a puppy and on exam noticed heart murmur grade II/VI apical murmur; patient has done fine; grew normally. Exercises well; has lots of energy and not having any clinical signs. Had x-rays taken in Nov. 2021 and radiologist suspected SAS.

-Abnormal PE/Chem/CBC/UA Results (Feb 2022): cbc/chem wnl/nsf; hwt/tick panel neg; fecal neg.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild mitral valve leaflet thickening with no obvious prolapse into the left atrial lumen. No mitral regurgitation is identified. Normal left atrial dimension. Normal LV diameter with normal myocardial function. The tricuspid valve appears subjectively normal. 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 subaortic narrowing. No obvious aortic abnormalities identified; however, the aortic outflow is not assessed. No aortic insufficiency. 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	NA	NA	NM	1.2	35	60	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	NM	NM	15.4	1.9	3.5	2.2
*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

Overtly normal cardiac structure and function with no cause of a murmur identified. This is not considered an extensive congenital screening however, and mild abnormalities may still be present. What is seen here suggests that any abnormality is at least hemodynamically insignificant with no significant pressure or volume overload appreciated. In the absence of significant volume changes (dehydration) or anemia, other possibilities include a physiologic flow murmur only present with elevated heart rates, or a small flow abnormality not seen here. It is



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reasonable to monitor periodically via recheck echocardiography in the future and **referral should be considered for advanced imaging if the murmur persists.**

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

BREED

Mix

No cardiac contraindication for general anesthesia based upon what is seen here.

PLAN

Consider referral as discussed.

SEX

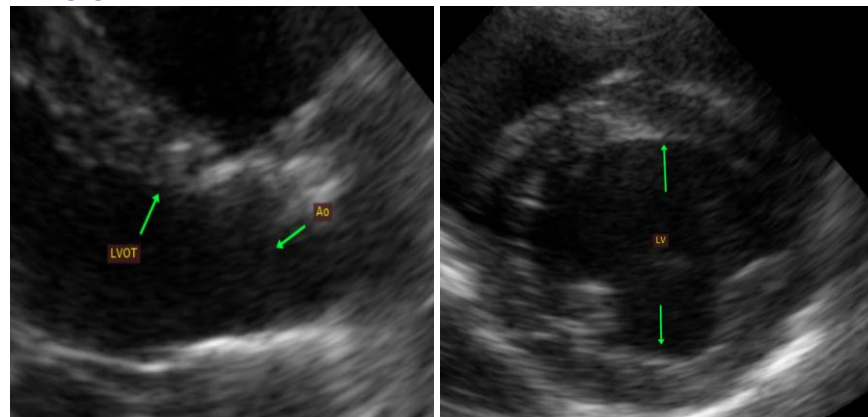
Male Neutered

If decline and murmur persists, recommend recheck echocardiogram in 1 year.

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IMAGES



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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

Marvis McCormick-Rantze, 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

Lanier Animal Hospital

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