


PATIENT
PRESENTING CLINICAL SIGNS

Cain Overby

Grade 3 heart murmur, had a previous echo done from another facility when he was 6 months old unsure of the diagnosis. Dog is not clinical

SPECIES
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

Rottweiler

SEX

MN

AGE

15mo

WEIGHT

101

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	<1.3	28-40	40-100	<0.6
PATIENT				1.36	47.4	82.3	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				
PATIENT	NM	2.3	1.75		3.8	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 2 separate methods of LA evaluation. The cranial and caudal mitral valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. No overt MR on Doppler was present. The left ventricle presented borderline mid to increased thicknesses with maintained linear contour and was not dilated nor restricted. The myocardium presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. Contractility of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The left ventricular outflow tract demonstrated turbulent to dynamic systolic laminar flow with overtly normal aortic valve. Mild elevated LVOT outflow velocity although potentially underestimated. Mild aortic insufficiency was present on color Doppler. The right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated adequate linear morphology and kinesis. No overt TR on Doppler. The right ventricle was of normal size (1/3 diameter of LV), with potential for borderline increased RV free wall thickness. Pulmonary outflow tract assessment revealed normal valve structure, subjective subtle turbulent to dynamic systolic outflow and normal diameter with trace PI present on Doppler. No visible pericardial or free pleura fluid was noted. The cranial mediastinum and pericardial and extra-cardiac regions were free of masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

- Subjective borderline to mild LV hypertrophy
- Turbulent to dynamic LVOT outflow with mild elevated LVOT velocity (potential underestimation of measured velocity)
- Borderline elevated RVOT velocity
- Mild AI/PI

INTERPRETED BY

 R. McKenzie Daniel,
 DVM, DABVP
 (Canine and Feline)

IMAGING PERFORMED BY

Nicole Gotfredson

HOSPITAL NAME

 Buffalo Veterinary
 Clinic

REFERRING VET

Dr Garry Gotfredson

INVOICE

11870ag

DATE

10/14/2022



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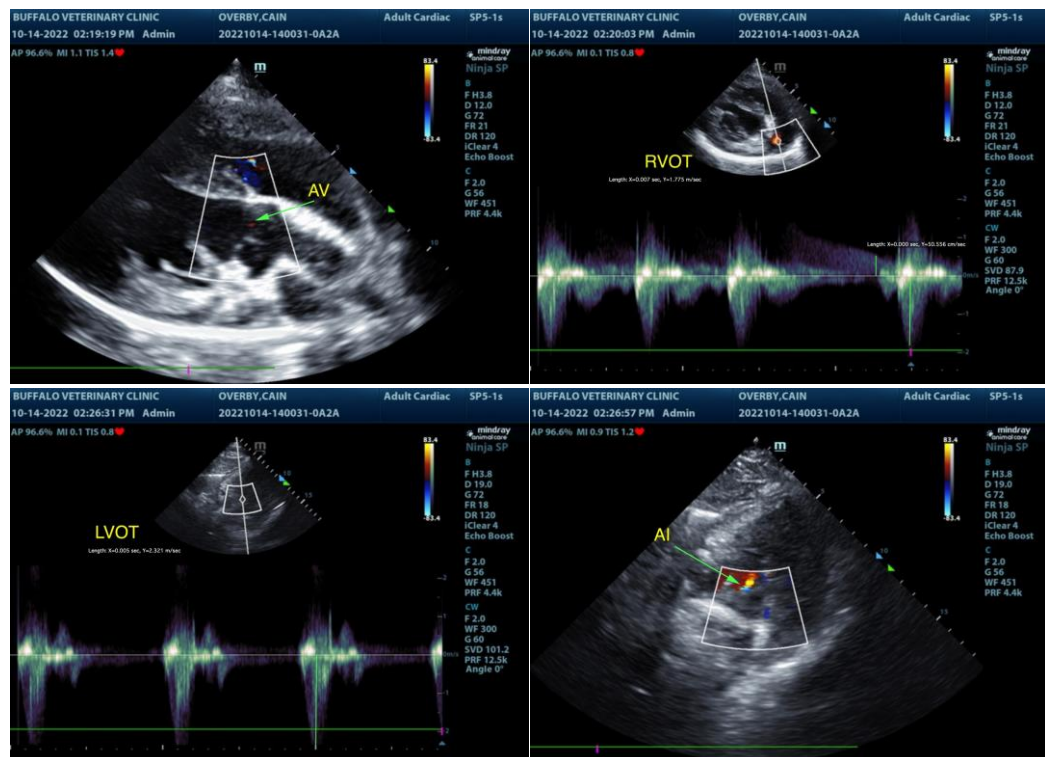
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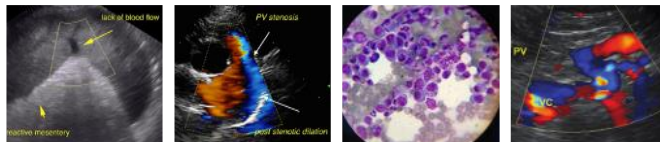
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The presumptive diagnosis and suspected cause of the murmur is subaortic stenosis based on turbulent to dynamic LVOT outflow as well as elevated LVOT velocity. However, potential for concurrent pulmonic outflow abnormality such as concurrent mild pulmonic stenosis cannot be definitively excluded. No overt evidence of a congenital shunt i.e. PDA.

Referral to a cardiologist for further assessment is strongly suggested if possible. Assessment of systemic BP to rule out hypertension as a contributing factor to the mild subjective LV hypertrophy is recommended.

Potentially low dose atenolol could be considered in this case although the benefit is questionable. If referral is not possible, serial sonographic monitoring is required for further prognosis. Recheck echocardiogram recommended in 6 months, sooner if clinical signs arise.





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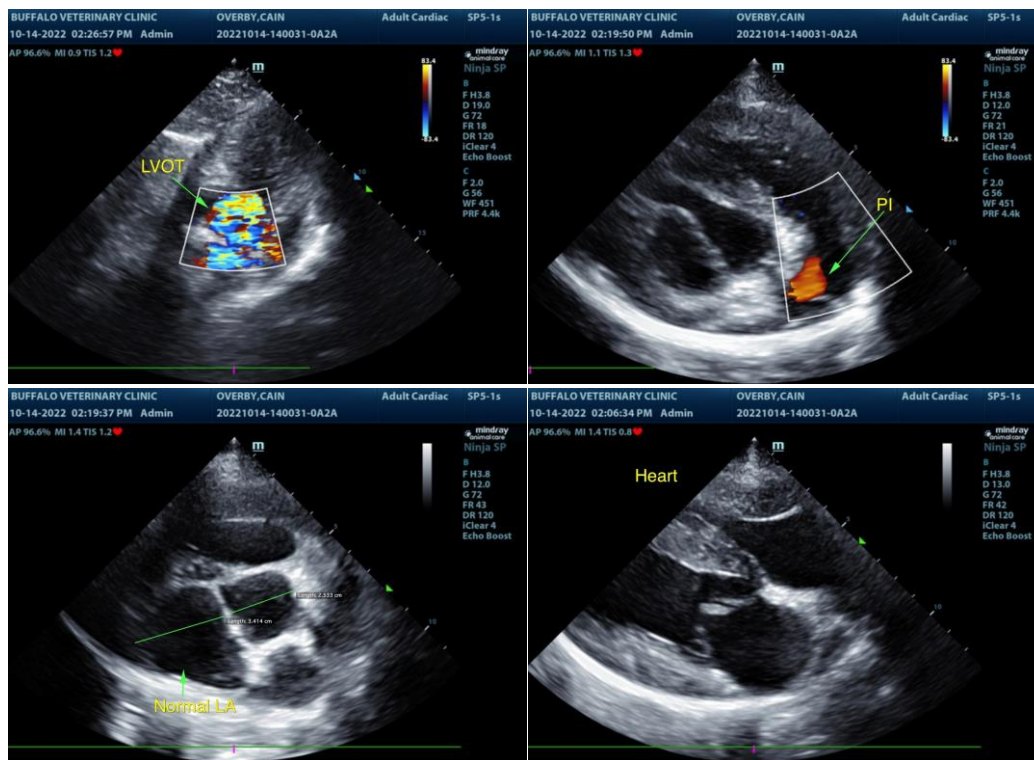
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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