



PATIENT

Samson Hendrickson

SPECIES

Canine

BREED

Golden Retriever

SEX

Male

AGE

10 months

WEIGHT

67 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Tracy Nyberg

HOSPITAL NAME

Stuga North VC

PRESENTING CLINICAL SIGNS

History: From what we can tell normal puppyhood/exams with no heart murmur noted at other veterinarian (records not received). Presented last week for castration and grade 5-6 cardiac murmur ausculted, seems to be primarily left sided systolic. Asymptomatic at home. Did not perform castration but scheduled cardiac ultrasound

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The **aortic valve** was mildly thickened with what appeared to be **left ventricular** septal limbus. Turbulence was noted at the left ventricular outflow tract. Doppler evaluation is necessary to assess for subaortic stenosis. The **mitral valve** also appeared thickened. There was no evidence of volume overload or significant concentric hypertrophy. The **left atrial** size was normal. 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. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). 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.

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			1.15		35		0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	90			67 lbs	2.8 max	3.0	

REFERRING VET

Dr. Nyberg

INVOICE

91244

DATE

8/16/21

ULTRASONOGRAPHIC FINDINGS

Slightly thickened aortic valve and mitral valve.

Further Doppler evaluation is necessary.

I suspect a congenital lesion, possible subaortic stenosis. However, CW Doppler of the mitral valve and left ventricular outflow tract is necessary for further definition.



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Even though normal volume and function is present I do not recommend anesthesia in this patient until complete Doppler evaluation of the LVOT and mitral valve have been performed.

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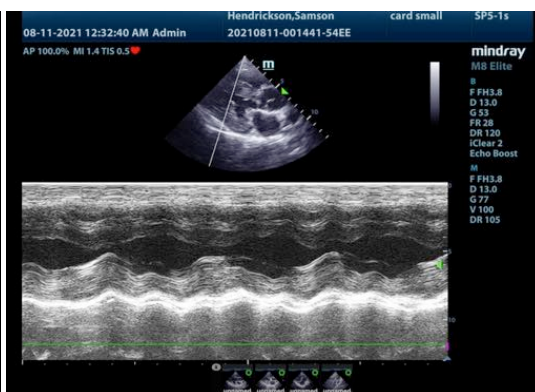
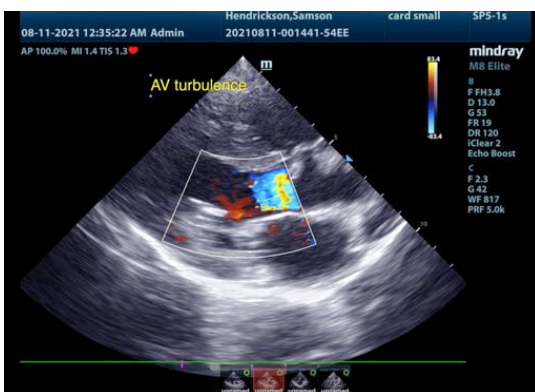
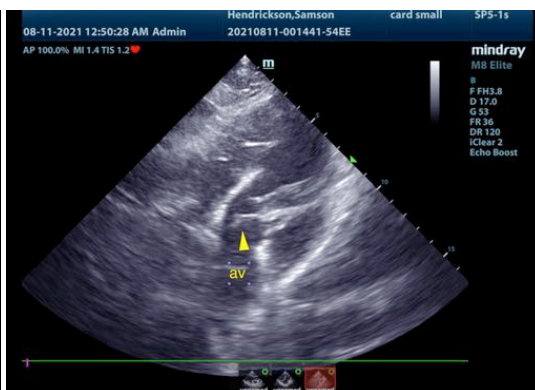
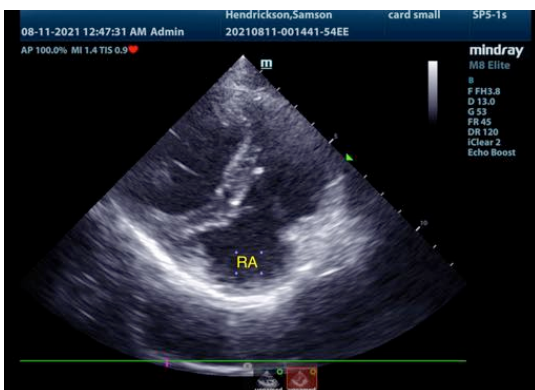
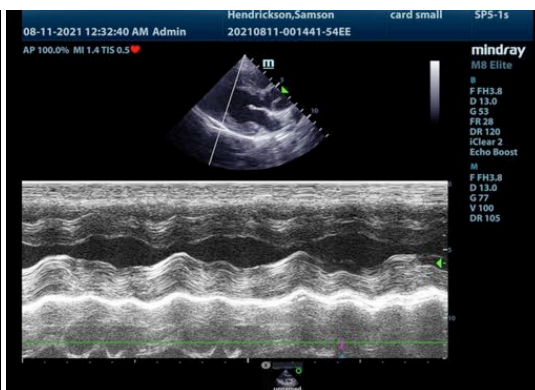
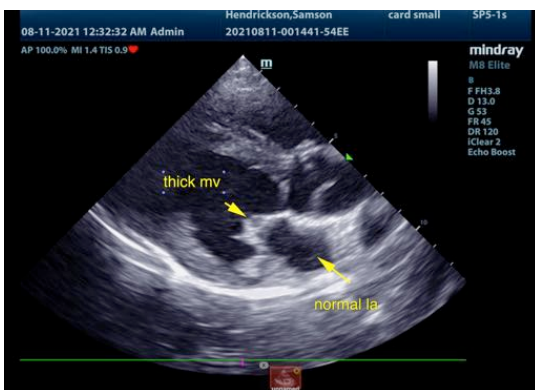
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*******ADDENDUM ULTRASONOGRAPHIC EXAMINATION OF THE HEART 8/16/21**

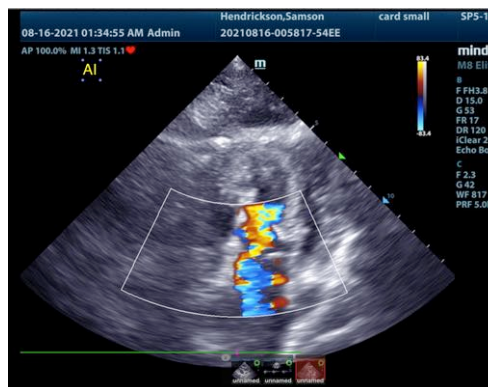
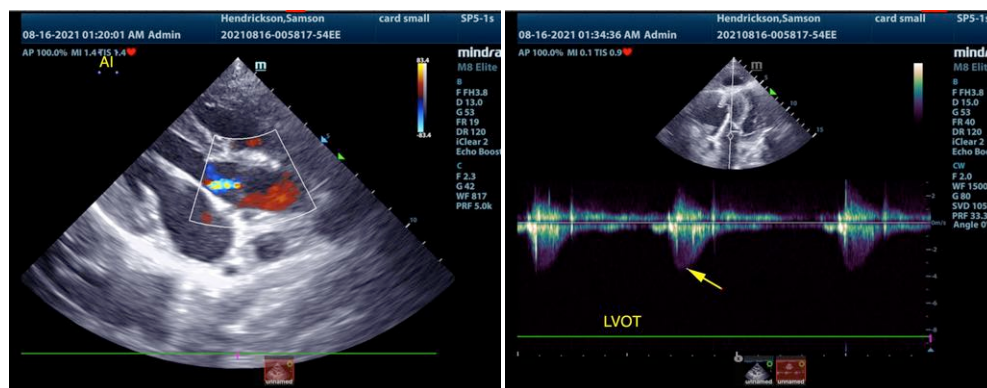
Further imaging of the left ventricular outflow tract were submitted. Increased left ventricular outflow velocity was noted at 4.0 m/sec with secondary aortic insufficiency. This is consistent with subaortic stenosis, yet not likely causing a clinical issue at this time. There was no significant contraindication to anesthetic procedure at this time. However, this may create the level of SAS as moderate.

ULTRASONOGRAPHIC FINDINGS

Subaortic stenosis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A recheck echocardiogram is recommended in 6 months or earlier if any exercise intolerance occurs. Guarded long term prognosis. This is a congenital lesion. The breeding line should be screening for subaortic stenosis. If anesthesia is to be performed prophylactic antibiotics 5 days prior and 5 days post anesthesia is recommended. Torbutrol premed, Propofol induction, and Isoflurane maintenance is recommended.



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.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



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can be of any further assistance please contact me.

Samson Hendrickson

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com

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