



PATIENT
Beau Wolfe

PRESENTING CLINICAL SIGNS
History: Grade 3/6 systolic murmur.

SPECIES
Canine

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Mild globoid cardiomegaly. No obvious evidence of CHF.

BREED
Golden Retriever

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets appear mildly thickened with no prolapse into the left atrial lumen. Mild central mitral regurgitation noted with a mild left atrial enlargement. Normal LV internal diameter with adequate myocardial function. The left ventricular walls are mildly hypertrophied consistent with pressure overload (1.2/1.3cm). Prominent/hypertrophied papillary muscles. Significant sub-aortic narrowing is visualized (see below). The aortic valve is difficult to visualize; however, some degree of valvular stenosis is suspected. Severe sub-aortic stenosis is present, with an elevated LVOT velocity. Mild to moderate aortic insufficiency. Prominent coronary arteries can be seen. The tricuspid valve appears abnormal with abnormal closure. Mild to moderate tricuspid regurgitation. Normal velocity. Mild right heart enlargement. The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors identified.

SEX
Male

AGE
9 months

CARDIAC CHART

WEIGHT
57lbs

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	2.7	NM	1.3	31	59	0.12
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	145	4.4	0.9	25.9	3.0	4.2	2.9
*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)
				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)

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Rebekah Jakum, CVT ARDMS/RVT

HOSPITAL NAME
Cherryville Animal Hospital

REFERRING VET
Dr. Myers

INVOICE
24374

DATE
5/24/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is severe sub-aortic stenosis (SAS) causing significantly elevated blood flow velocity through the LVOT and aortic valve. The LV walls are mildly hypertrophied secondary to the stenosis and there is mild to moderate AI; however, the remainder of the cardiac structure and function appears adequate. There is also mitral and tricuspid dysplasia, with leaks in both



PATIENT

Beau Wolfe

valves. Stenosis is not ruled out in this image set; however, the degree of volume overload appears mild. Complex congenital issues cannot be rule out without advanced diagnostics such as a bubble study, angiogram, CT/MR, etc.; however, suspicion is low in this case. No additional issues are identified.

SPECIES

Canine

Surgery for SAS has not been proven to alter long term outcome, however select Universities will attempt a cutting balloon valvuloplasty. Medical management through heart rate control is recommended as below, in hopes of decreasing the degree of obstruction and pressure overload long term. It is worth noting the patient is bradycardic during the echo, if this is independent of sedation, Atenolol may not be necessary as the target heart rate is <120bpm stressed. Follow up is advised. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

BREED

Golden Retriever

SEX

Male

Prognosis is guarded yet highly variable, with many dogs in the severe category succumbing to malignant arrhythmias by mid-life and others maintaining asymptomatic status for some time. Serial echocardiography is recommended lifelong to assess for progression and risk for complication. Monitor for development of labored breathing, exercise intolerance or collapse episodes, as SAS patients are more predisposed to development of arrhythmias than to CHF. Mild exercise restriction is advised lifelong.

AGE

9 months

WEIGHT

57lbs

Anesthetic risk is mild. Avoid heart rate stimulating drugs such as atropine or glycopyrrolate unless clinically indicated. Avoid ketamine and acepromazine due to systemic vascular effects. Mild IV fluid restriction is advised. Recommend prophylactic antibiotics for any orthopedic or dental procedure in the future given predisposition to endocarditis.

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

PLAN

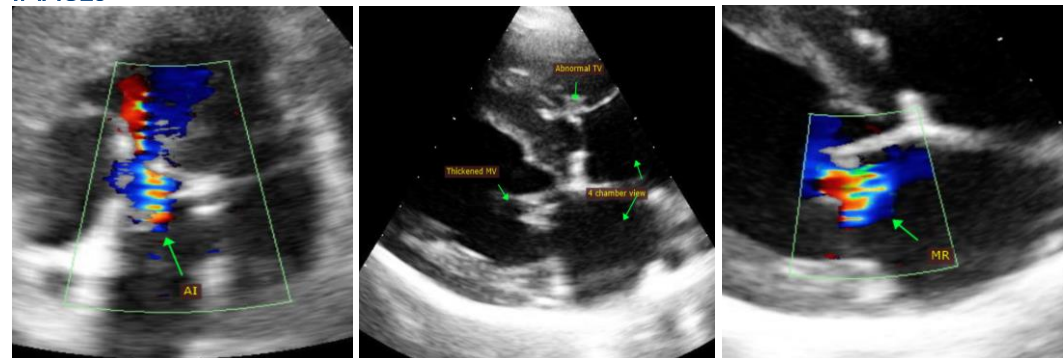
Recommend referral due to multiple affected valves and need for lifelong monitoring. If resting heart rate is >120bpm, institute atenolol to effect: 0.5-1.5mg/kg SID-BID (up-titrate to desired effect). Goal is to suppress heart rate <120-130bpm even with stress/activity with no outward signs of lethargy, intolerance, etc.

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

Recommend recheck echocardiogram in 6 months to screen for progression.

IMAGES



HOSPITAL NAME

Cherryville Animal
Hospital

REFERRING VET

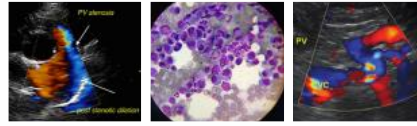
Dr. Myers

INVOICE

24374

DATE

5/24/22



PATIENT

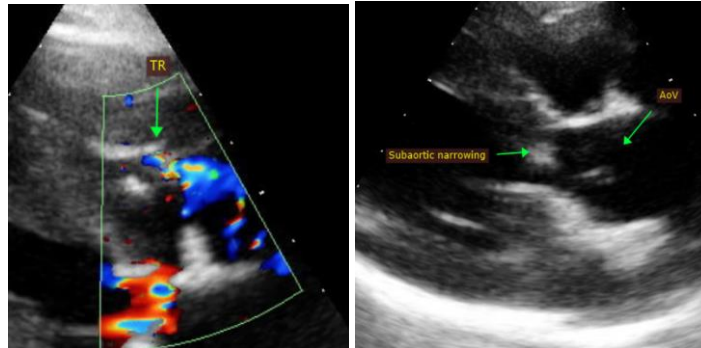
Beau Wolfe

SPECIES

Canine

BREED

Golden Retriever



SEX

Male

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.

AGE

9 months

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.

WEIGHT

57lbs

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

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

HOSPITAL NAME

Cherryville Animal
Hospital

REFERRING VET

Dr. Myers

INVOICE

24374

DATE

5/24/22