



PATIENT

Zoe Bogucki

PRESENTING CLINICAL SIGNS

History: Patient presented today for spay; however, a new grade 4/6 L-sided sys murmur was noted. No murmur had been noted at three puppy vaccine visits in Jan, Feb and early March.

SPECIES

Canine

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets appear thickened with no prolapse into the left atrial lumen. Mild mitral regurgitation noted with mild left atrial dilation. Normal LV diameter with adequate myocardial function. Mild LV hypertrophy. The tricuspid valve appears mildly thickened with mild tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology. The pulmonic valve is normal in morphology and mobility. The aortic valve is normal with mild insufficiency. Subaortic narrowing visualized consistent with sub-aortic stenosis. No pericardial or pleural effusion noted. No cardiac tumors identified.

BREED

German Shepherd

SEX

Female

CARDIAC CHART

AGE

7 months

WEIGHT

70lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

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	4.0		NM	1.5	35	64	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	nNM	31.8	3.0	4.2	2.7
*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

The cause of the murmur is elevated blood flow velocity through the LVOT and aortic root, consistent with sub-aortic stenosis (SAS). The velocity through the region is not assessed; however, an estimate of a mild to moderate stenosis is suspected. The LV wall dimensions are mildly thickened, and a small aortic leak is noted. There is also mild mitral and tricuspid valve dysplasia present which should be monitored going forward. No additional issues are identified; however, it is important to note that this is not considered an extensive congenital scan. Further abnormalities such as a PDA are not entirely ruled out. Isolated VPCs are noted throughout the study (ECG attached), and a baseline ECG is strongly recommended. Consider referral for advanced echocardiography in this case.

IMAGING PERFORMED BY

Tam Mengine,
DVM

HOSPITAL NAME

Stoney Creek
Veterinary Hospital

REFERRING VET

Dr. Mengine

INVOICE

24895

DATE

6/21/22



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While atenolol is often used in severe SAS cases, this is not clearly warranted at this time pending referral and assessment of aortic velocities.

SPECIES

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From a cardiac standpoint, monitor for development of labored breathing, exercise intolerance or collapse episodes, as SAS patients are more predisposed to development of arrhythmias than to CHF. No cardiac medications are indicated however as most patients with a hypoplastic root/mild SAS will live a normal life free of complications. My main concern in this case is this condition can worsen up to a year of age and reassessment is advised to determine if Atenolol therapy is indicated.

BREED

German Shepherd

Without further evaluation, anesthetic risk is considered moderately elevated. Avoid ketamine, telazol, dexdomitor (or other alpha-2 agonists) and acepromazine. Recommend having lidocaine CRI available for use in the event of worsening ventricular arrhythmias under anesthesia (CRI 50–75mcg/kg/min). Avoid heart rate stimulating drugs such as atropine or glycopyrrolate unless clinically indicated. Recommend prophylactic antibiotics for any orthopedic or dental procedure in the future given slight predisposition to endocarditis. Monitor ECG both intra and post-operatively closely, given the predisposition to ventricular ectopy.

SEX

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AGE

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PLAN

No medications are indicated at this time. Recommend referral as discussed.

WEIGHT

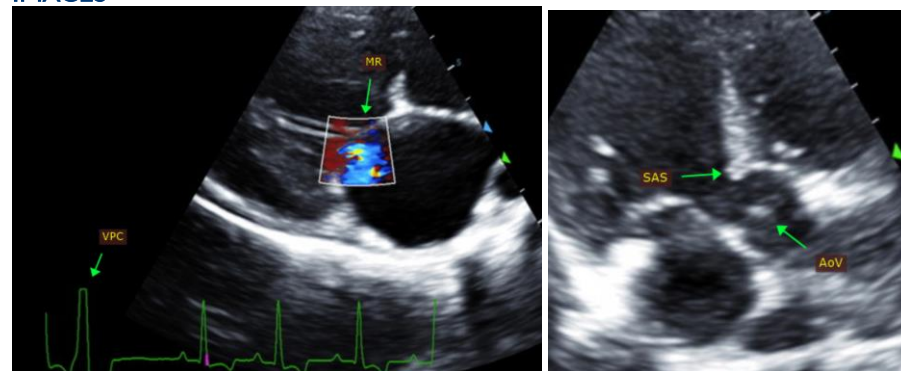
70lbs

A recheck echocardiogram is recommended in 6-12 months to screen for progression and need for medication.

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IMAGES



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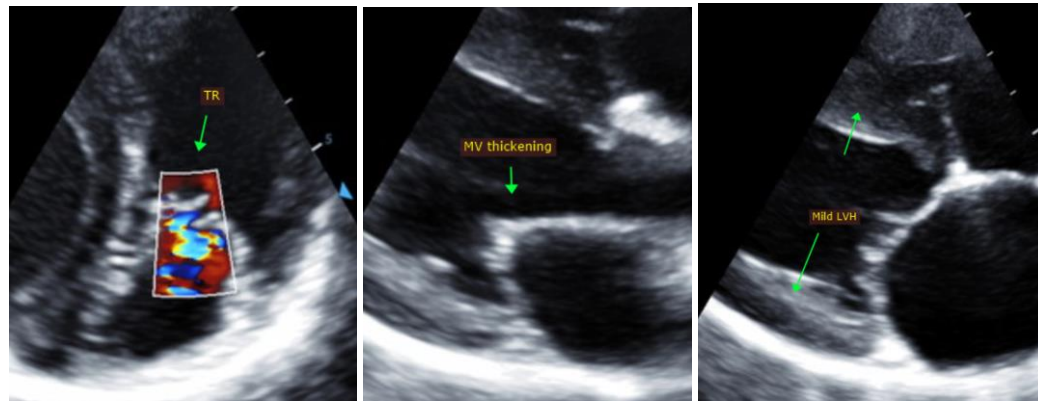
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. 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.

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