


**PATIENT**

Marvin Okada

**PRESENTING CLINICAL SIGNS**

History: Grade 2-3/6 heart murmur. Assess prior to anesthesia for neuter.

**SPECIES**

Canine

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The mitral valve leaflets are mildly thickened with no prolapse into the left atrial lumen. Trace mitral regurgitation noted with normal left atrial dimension. Normal LV diameter with adequate myocardial function. Normal LV wall thickness. The tricuspid valve appears subjectively normal, no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology. The pulmonic valve is normal in morphology and mobility. The aortic valve is mildly thickened with no aortic insufficiency. Mild subaortic narrowing is suspected, although the LVOT is poorly visualized. Normal pulmonic and mildly elevated aortic outflow velocity. No pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors identified.

**BREED**

Goldendoodle

**SEX**

Male Intact

**AGE**

6 months

**CARDIAC CHART**
**WEIGHT**

16.5lbs

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	NM	NA	1.1	1.2	60	91	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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>	175	2.1	1.3	7.5	1.8	2.3	0.9
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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**

Kelly Reschny, RVT

**HOSPITAL NAME**

 Headon Forest  
 Animal Hospital

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is mildly elevated blood flow velocity through the LVOT and aortic root, consistent with mild sub-aortic stenosis (SAS) and a hypoplastic aortic root. The LV wall dimensions are normal however, indicative of no significant pressure overload. This condition can be exacerbated by volume status changes (anemia, dehydration) and/or heart rate, and may cause the murmur intensity to wax and wane. No additional issues are identified.

**REFERRING VET**

Dr. Hong

**INVOICE**

28939

**DATE**

2/13/23



**PATIENT**

Marvin Okada

**SPECIES**

Canine

**BREED**

Goldendoodle

**SEX**

Male Intact

**AGE**

6 months

**WEIGHT**

16.5lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Kelly Reschny, RVT

**HOSPITAL NAME**

Headon Forest  
Animal Hospital

**REFERRING VET**

Dr. Hong

**INVOICE**

28939

**DATE**

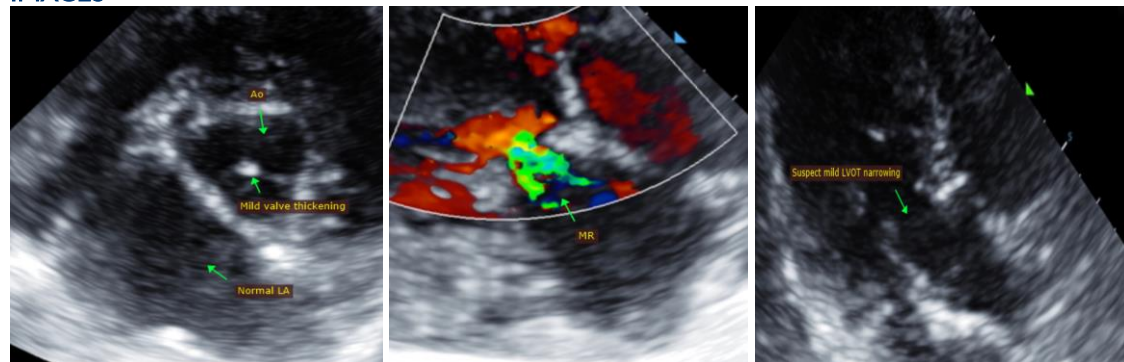
2/13/23

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 (particularly in this breed). 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 the young age of the patient, as this issue can worsen up to 1 year of age. Reassessment is recommended.

Anesthetic risk is low. 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.

A recheck echocardiogram is recommended at 1 year of age, sooner if any clinical signs arise.

**IMAGES**



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.

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