



**PATIENT**

Coco White

**PRESENTING CLINICAL SIGNS**

History: Came in for small skin tag on head and found an oral mass and grade 3/6 heart murmur. Asymptomatic. Patient is on a grain-free diet. BP: 185/106 (132), 171/139 (150)mmHg.

**SPECIES**

Canine

**BREED**

Labradoodle

**SEX**

Female Spayed

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Mild mitral valve thickening with no obvious prolapse into the left atrial lumen. Moderate anterior-directed mitral regurgitation. Normal velocity. Mild left atrial dilation. The LV is normal in diastole with an increased systolic dimension (LVIDdN: 1.6, LVIDsN: 1.2). Mildly depressed myocardial function. Increased LV sphericity. The tricuspid valve appears subjectively normal, with a mild insufficiency seen. Normal velocity. Prominent right atrium and ventricle. No overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities; laminar flow. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac or extra-cardiac tumors identified.

**CARDIAC CHART**

**AGE**

7 years

**WEIGHT**

76lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Sarah Pender, CVT

**HOSPITAL NAME**

SVS Imaging QC

**REFERRING VET**

Dr. Hook

**INVOICE**

26242

**DATE**

9/7/22

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>	5.1	2.0	NM	1.5	22	40	0.5
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>	97	1.5	0.7	34.5	3.2	4.6	3.6
*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)
<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 murmur is due chronic degenerative valve disease causing moderate mitral and mild tricuspid regurgitation. Of more concern, mild left heart changes are identified including mild LA/LV dilation and a mild decline in systolic function. It is unclear if these changes are consistent with early concurrent cardiomyopathy, are secondary to CVD, or are simply a normal variant. Serial monitoring is advised. No additional issues are identified.

Given the echo findings and the recent evidence of grain free diets leading to DCM in some (but certainly not all) dogs, highly recommend change to a more standard well formulated diet. A

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taurine level can be submitted, however regardless of results recommend a taurine supplement in this case as below. Other possible contributing issues such as hypothyroidism can also be considered. Monitoring for progression is advised. No clear indication for Pimobendan at this juncture, however if any progression or clinical signs are noted this will be advised.

**SPECIES**

Canine

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

**BREED**

Labradoodle

Anesthetic risk is considered mild. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**SEX**

Female Spayed

**PLAN**

Diet change ASAP. Taurine supplement, 1000mg q8-12h. Consider a thyroid level.

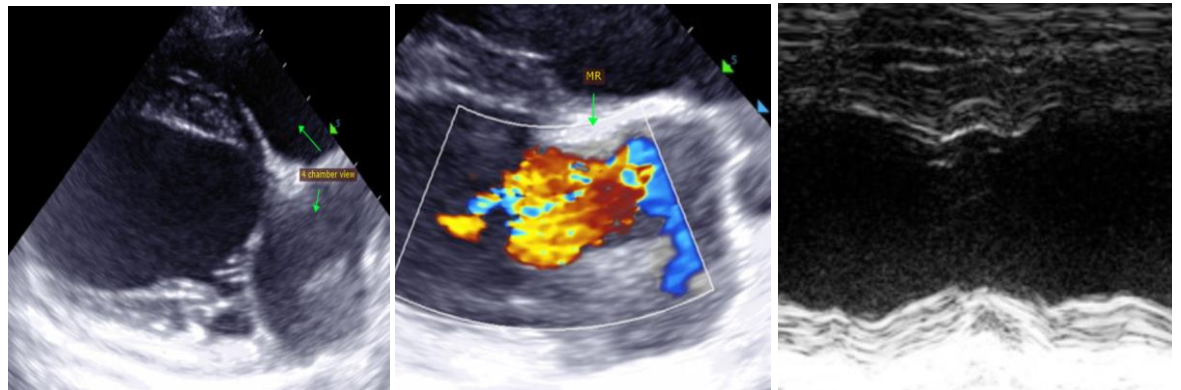
**AGE**

7 years

Recommend conservative monitoring with a recheck echocardiogram in 4-6 months, sooner if any development of clinical signs.

**WEIGHT**

76lbs

**IMAGES****INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Sarah Pender, CVT

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.

**HOSPITAL NAME**

SVS Imaging QC

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.

**REFERRING VET**

Dr. Hook

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
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