



**PATIENT**

Stella Laurin

**SPECIES**

Canine

**BREED**

Golden Retriever

**SEX**

Female

**AGE**

9.5years

**WEIGHT**

72lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Jacque Pankatz,  
DVM

**HOSPITAL NAME**

Mountain Vista  
Veterinary Hospital

**REFERRING VET**

Dr. Pankatz

**INVOICE**

28284

**DATE**

1/11/23

**PRESENTING CLINICAL SIGNS**

History: Was vomiting for four days consecutively, then stopped vomiting and was having a gagging cough. Then started bringing up thick foam. Better now. No heart murmur.  
-Chest radiographs: Concerning for heart enlargement.

**ECHOCARDIOGRAM FINDINGS**

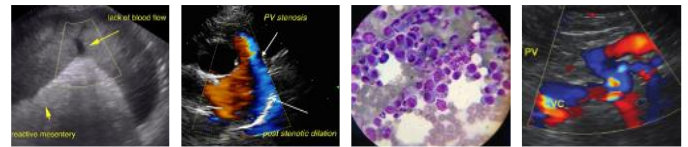
2D, m-mode, color flow and doppler imaging is available. Large mixed echogenicity mass associated with the aortic root; 7.3 x 4.2cm in best viewed cross section. The mass is well encapsulated and near the bifurcation overlying the aorta. No obvious obstruction to blood flow is seen; however, mild right heart enlargement and mild pulmonary hypertension may suggest early compression. There is mild eccentric mitral regurgitation, thickened mitral valve with no prolapse. LV function is normal. Left atrium is minimally dilated. Mildly thickened TV with mild TR; velocity is consistent with early pulmonary hypertension. The pulmonic and aortic valves are normal in appearance. Normal LVOT and RVOT velocity. No AI or PI identified. No pericardial or pleural effusion.

**CARDIAC CHART**

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	NM	3.0	NM	1.3	36	66	0.11
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	1.5	1.4	32.7	3.1	4.4	2.8
*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**

Chronic degenerative valve disease causing mild mitral and tricuspid regurgitation. Minimal left atrial enlargement indicates the current risk for complication is low but may progress in the future. Mild pulmonary hypertension and mild right heart enlargement are suspected to be secondary to the mass. No additional issues are identified.



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<b>SPECIES</b>	
Canine	Of greater importance, there is suspect cardiac neoplasia associated with the heart base. The most likely tumor type given this location and the breed is a chemodectoma, however other more malignant differentials cannot be ruled out. Chemodectomas are often incidental findings as is suspected to be the case here, only causing clinical signs if blood flow is obstructed, pericardial effusion occurs, or a metastatic lesion causing systemic issues. It is difficult to definitively evaluate the mass peripherally (i.e., cannot rule out peripheral obstruction of flow through distal PA's) and a CT may be helpful to screen for true extent.
<b>BREED</b>	
Golden Retriever	The prognosis with cardiac chemodectomas is fair. The limiting factor is often hemorrhage into the pericardium, impingement of cardiac blood flow secondary to tumor growth, or metastasis to the thorax or abdomen. Chemotherapy and/or radiation therapy can also be discussed with an Oncologist.
<b>SEX</b>	
Female	Given these findings, the mass may certainly be contributing to a cough symptom. That being said, concurrent vomiting is of unknown origin. The cough may progress as the tumor grows, particularly should further chamber imposition develop. Should the tumor increase in dimension and lead to congestion, this is most commonly right-sided congestion (ascites/effusions) with increasing pulmonary pressures and syncope with exertion. Monitoring is advised.
<b>AGE</b>	
9.5years	
<b>WEIGHT</b>	
72lbs	Continued cough management is recommended using more aggressive Hydrocodone, a course of Baytril, a trial of Theophylline, etc.
<b>INTERPRETED BY</b>	
Maggie Machen Lamy, DVM, DACVIM (Cardiology)	Recommend referral in this case for advanced thoracic imaging to understand the full extent of the mass. Additionally, full systemic evaluation is recommended to screen for metastatic issues. Finally, there are some treatment options with this particular type of mass and consultation with an IM or Oncology Specialist is recommended.
<b>IMAGING PERFORMED BY</b>	
Jacque Pankatz, DVM	Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.
<b>HOSPITAL NAME</b>	
Mountain Vista Veterinary Hospital	Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Prognosis is guarded long-term.
<b>REFERRING VET</b>	
Dr. Pankatz	Anesthetic risk is considered moderately elevated if needed. 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.
<b>INVOICE</b>	
28284	<b>PLAN</b> Consider cough management as discussed if needed. Recommend referral, systemic evaluation, etc.
<b>DATE</b>	
1/11/23	Recheck tumor size via echocardiography in 6 months, sooner if clinical signs arise.



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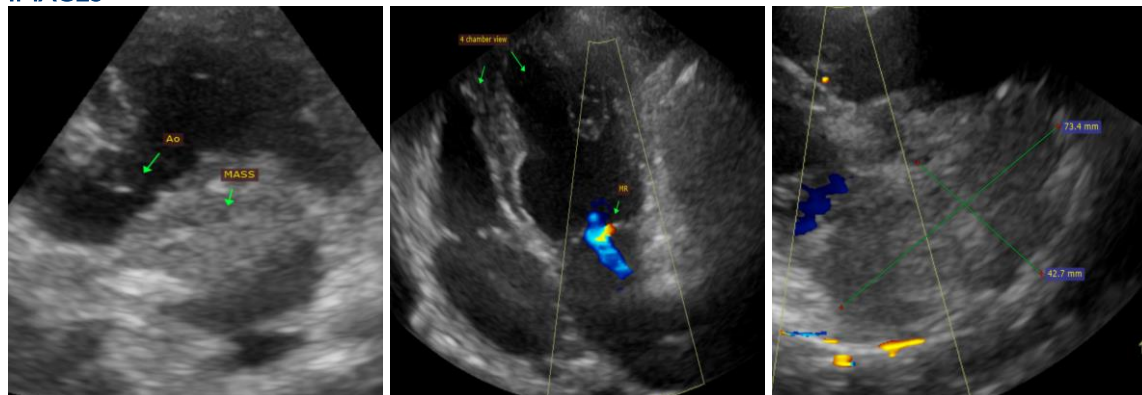
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**IMAGES**



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**  
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info@sonopath.com