



**DATE PRESENTING CLINICAL SIGNS**

3.2.26 History: Recheck echo. Currently clinically stable and doing very well at home.

**PATIENT**

Lilly Baunoch

**SPECIES**

Canine

**BREED**

Cavachon

**SEX**

FS

**AGE**

2.3.13

**WEIGHT**

19.2lbs

**RECOMMENDATIONS**  
-Pertinent abnormal PE/Chem/CBC/UA Results (9/2025): CBC, Chem: WNL.  
-Current medications: Pimobendan 10mg tab ¼ (2.5mg) PO twice daily, Enalapril 2.5mg tabs ½ PO q12h  
-Sedation used: Not required to complete full diagnostic ultrasound.  
-Pertinent previous ultrasound results (9/2024 CVCA): Moderate MR, RCT, severe LA/LVE, mild PH. Syncope. Recommended, Pimobendan, Enalapril, Spironolactone +/- Lasix.  
-STAT: Declined at this time.  
-Imaging performed by: Stephanie Warga RDCS, RVT.

**RADIOGRAPHIC FINDINGS** \*NOTE: Images submitted for supplemental information only.

Mild cardiomegaly. No obvious evidence of CHF.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Thickened mitral valve with no obvious prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate LA dilation. Normal MR velocity. Normal LV diameter with adequate myocardial function. Normal LV wall thickness. The tricuspid valve appears normal in form and function with mild TR. Velocity consistent with mild pulmonary hypertension. No significant right heart enlargement. The pulmonic and aortic valves are normal in morphology and mobility. Normal RVOT/LVOT outflow velocities; laminar flow. No aortic insufficiency. The MPA and branches are normal in dimension. No pericardial or pleural effusion noted. A large hypoechoic soft tissue lesion is seen adjacent to the main pulmonary artery; 3.6 x 3.3cm in best viewed cross section.

**CARDIAC CHART**

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Northwind AH

**REFERRING VET**

Dr. Wilson

**INVOICE**

47054

<b>CANINE CARDIAC PARAMETERS</b>	<b>MR VMAX</b> (m/s)	<b>TR VMAX</b> (m/s)	<b>LA/AO</b> (Boon method)	<b>LA/AO</b> (Heart Base; Swe)	<b>FS</b> (%)	<b>EF</b> (%)	<b>EPSS</b> (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	5.5	3.2	NM	1.66	46	79	NM
<b>CANINE CARDIAC PARAMETERS</b>	<b>HR</b> (BPM)	<b>AV VMAX</b> (m/s)	<b>PV MAX</b> (m/s)	<b>BODY WEIGHT</b> (kg)	<b>LA</b> 2D short axis Base view (cm)	<b>LVIDd</b> Avg; 2D and m-mode short axis (cm)	<b>LVIDs</b> 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>	170	1.4	0.8	8.7	2.5	3.0	1.6
*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)
*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)

Adapted from June Boon, Veterinary Echocardiography, 1998

Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435	35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Hansson et al, Vet Rad and Ultrasound 2002	40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
Bonagura et al. Echocardiography: principles of interpretation, Vet	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Chronic degenerative valve disease persists with moderate mitral and trace tricuspid regurgitation. Compared to the prior evaluation, the LA and LV have improved and there is no obvious chordae tendineae seen, which is good news. Mild pulmonary hypertension is also similar to previous. No additional structural issues have developed.

Of great concern, a soft tissue lesion is seen adjacent to the pulmonary artery. The mass origin cannot be visualized and appears atypical of a chemodectoma. Other possible tumor types, such as an ectopic parathyroid, are suspected. Further workup is recommended, as there is concern that the mass may impinge on pulmonary artery flow with any further growth.

Further diagnostic imaging is highly recommended to understand the definitive origin. If not recently performed, 3 view chest radiographs with Radiologist review in light of echo findings as the next step. A thoracic CT scan, and potentially FNA/biopsy with an internist or surgeon may ultimately be warranted. Full systemic screening is also recommended, including an abdominal ultrasound, lab work, etc. Once a diagnosis is confirmed or at least highly suspected based upon further imaging, treatment options can be discussed (surgery, chemotherapy, etc.).

Given the totality of the findings, reasonable to continue Pimobendan and Enalapril as prescribed. Symptomatic cough control can be used if needed. Prognosis is guarded poor to further evaluation of the mass. The valve disease appears stable at this time.

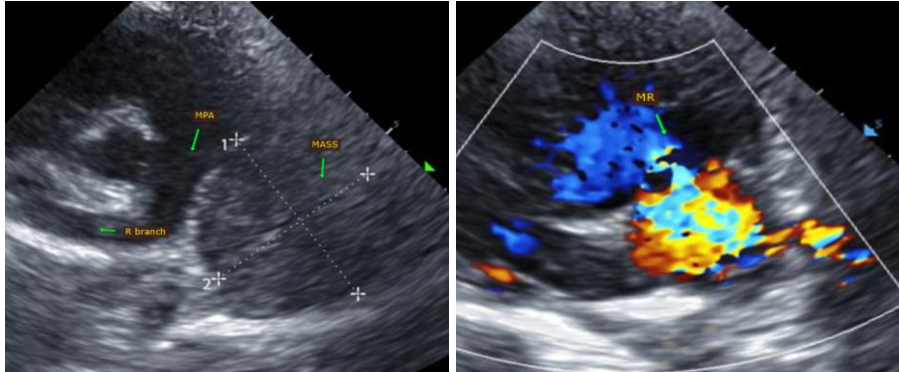
Anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso or sevo gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

### **PLAN**

Continue Pimobendan and Enalapril, pending BP assessment. Further workup of the mass is strongly recommended as discussed.

Recommend reassess in 6 months, sooner if 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**

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