

**PATIENT**

Remy Drost

**SPECIES**

Canine

**BREED**

Doberman

**SEX**

Neutered Male

**AGE**

7 Years

**WEIGHT**

92 Pounds

**INTERPRETED BY**

Sara Brethel, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Yvonna Aranda

**HOSPITAL NAME**

Countryside AC

**REFERRING VET**

Dr. Heider

**INVOICE**

35494

**DATE**

11/12/25

**PRESENTING CLINICAL SIGNS**

History: Clinical Exam Findings: Coughing after barking past 4 days No exercise intolerance reported Gallop rhythm noted Murmur 2/6.

Abnormal PE/Chem/CBC/UA Results: ABNORMAL Labwork Values No labs done For ECHO Only: Blood Pressure No BP taken HR/RR/BP: HR 190 / RR panting Is there a Heart Murmur? If so, please grade. 2/6 Current Medications None.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

<b>CANINE CARDIAC PARAMETERS</b>	<b>MR VMAX</b> (m/s)	<b>TR VMAX</b> (m/s)	<b>LA/AO</b> (M-Mode)	<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	Up to 1.6	28-40	40-100	<0.6
<b>PATIENT</b>	4.61	3.32	NM	2.17	12.5	--	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>LAD</b> LA MAX 4 Chamber	<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				
<b>PATIENT</b>	129	1.21	0.53	41.81	5.9	5.6	4.9

**Chest Radiographic Interpretation**

There is severe left atrial enlargement and left ventricular enlargement causing the cardiac silhouette to be tall. The pulmonary vasculature is enlarged. There is a mild bronchointerstitial pattern, primarily in the caudodorsal field. These findings are consistent with cardiogenic pulmonary edema.

**ECG Interpretation**

There is significant artifact throughout the ECG. The dominant rhythm appears to be sinus. An arrhythmia cannot be entirely ruled out.

**Cardiac Presentation**

The mitral valve leaflets are normal with mild mitral regurgitation centrally directed. There is no prolapse of mitral valve leaflets. The left atrial size is severely increased. LV internal dimensions during diastole are increased and systolic function is decreased in the face of mitral regurgitation. The left ventricle is hypodynamic with thinning of the left ventricular walls. There is normal right atrial size with



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mild evidence of tricuspid regurgitation. The tricuspid valve leaflets are normal. There is mild evidence of pulmonary hypertension on this evaluation. The right ventricle appears to have preserved systolic function subjectively. The aortic and pulmonic valves had normal morphology and the corresponding outflow velocities were within normal limits. There was no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses. There are B-lines present.

**ULTRASONOGRAPHIC FINDINGS**

- Dilated cardiomyopathy phenotype
- Severe left atrial enlargement
- B-lines
- Cardiogenic pulmonary edema
- Mild tricuspid regurgitation with mild pulmonary hypertension

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There is evidence of a dilated cardiomyopathy phenotype. Differentials include primary dilated cardiomyopathy (idiopathic), dietary related, infectious, or inflammatory. Sometimes, non traditional grain free diets can cause decreased pumping function of the heart. There are other diseases such as infectious causes (tick borne), inflammatory conditions, or diseases that affect the body that can also cause this type of appearance to the heart. Other diagnostics to consider include screening for infectious diseases, ensuring blood work is within normal limits, and considering an abdominal ultrasound if the breed is not a classic breed for DCM (ie: classic breeds: Doberman, Great Dane, Irish Wolfhounds).

Cardiac medications such as furosemide (2.0 mg/kg twice daily) and pimobendan (0.27-0.32mg/kg PO q12) are recommended. Recommend the patient start this therapy immediately. Depending on the patient's clinical condition, hospitalization maybe needed. Can consider referral to a veterinary cardiologist for continued management.

Due to the potential for arrhythmias with DCM, a Holter monitor is recommended. If a Holter is unavailable, recommend evaluating the rate and rhythm with an electrocardiogram. Unfortunately, due to the nature of this disease, the patient is at risk of passing away suddenly.

Unfortunately, patients in congestive heart failure with DCM have a poor to guarded prognosis. The median survival times are roughly 6-9 months (with some patients doing better and other patients not doing as well).

A recheck is recommended in 1-2 weeks for chest radiographs and blood work. If the patient is doing well, and the kidney values are normal, then I recommend starting ace inhibitors (enalapril or benazepril 0.5mg/kg once to twice daily) and spironolactone (2.0 mg/kg once daily). 2-3 weeks after starting ace inhibition, repeat kidney values are recommended.

The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.



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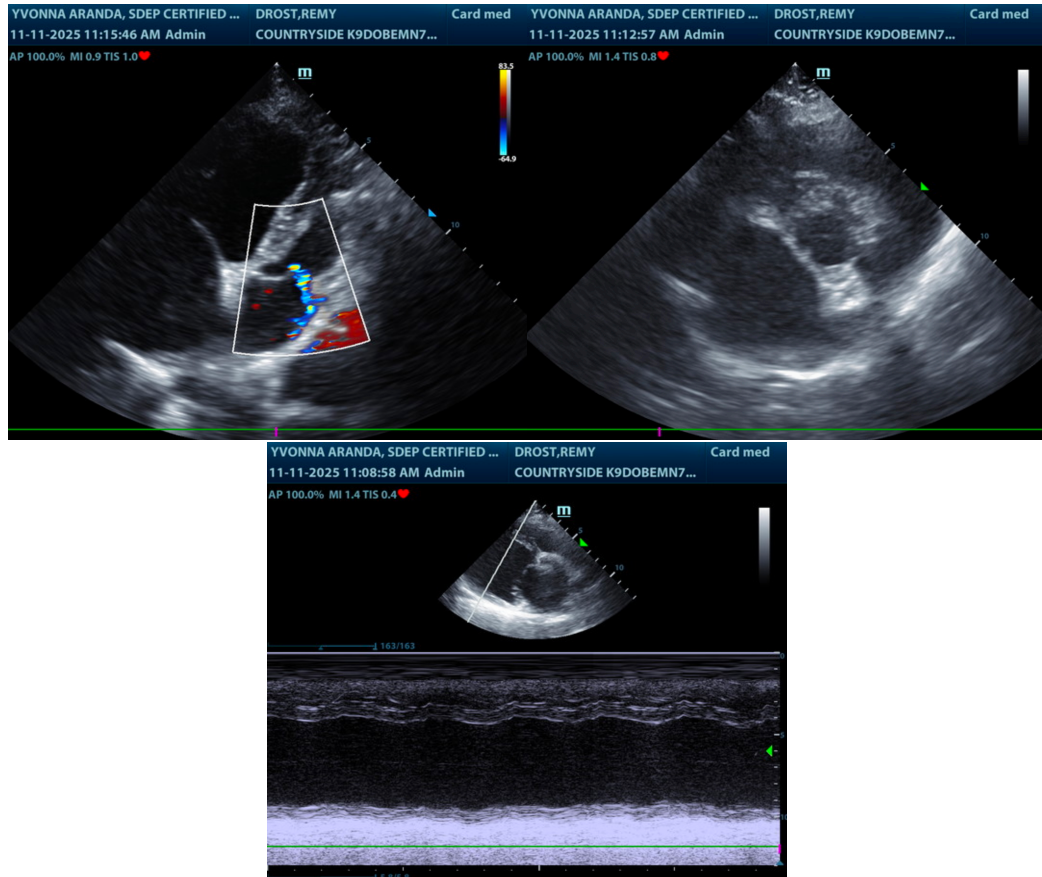
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If not moving forward with referral, a recheck echo is recommended in 2-4 months. If the patient is tolerating therapies, and after ace inhibition and spironolactone (if added), can also consider cardiac supplementation. If the patient is eating well, recommend starting taurine (30mg/kg PO q12) and L-carnitine (50mg/kg q8) supplementation (brands: Now, Solgar, PetAg, Twinlabs). Fish oil supplementation can also be administered (EPA 40mg/kg + DHA 25mg/kg PO q24). Can consider staging these medications (ie: starting one and then a week later starting another) due to the potential for stomach upset.



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

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.

Sara Brethel DVM, DACVIM (Cardiology)

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