



**PATIENT**

Dozer Flanagan

**SPECIES**

Canine

**BREED**

Great Dane

**SEX**

Male Neutered

**AGE**

3.10 years

**WEIGHT**

149.3lbs

**PRESENTING CLINICAL SIGNS**

History: Dozer was noted to have a heart murmur in April. He has been on a grain free diet since one year of age due to GI issues. Good appetite and normal activity level. On exam: NSR, grade IV/VI murmur with PMI left apical area radiating to right, PSS, lung fields clear. BP: 140mmHg x 3. \*Sedated with propofol for study.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and Doppler imaging is available.

**Left ventricle:** The LV diameter is significantly increased with marked systolic dysfunction. Increased LV sphericity. LV wall thicknesses are normal.

**Left atrium:** The left atrium is severely dilated.

**Mitral valve:** The mitral valve is mildly thickened with no prolapse into the left atrial lumen. Mild mitral regurgitation with a decreased velocity.

**Aortic valve/Aorta:** The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** Mild RV enlargement.

**Right atrium:** Mild RA enlargement.

**Tricuspid valve:** The tricuspid valve appears thickened with no tricuspid regurgitation.

**Pulmonary valve/Pulmonary artery:** The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

**Pericardium/other:** No pericardial or pleural effusion noted. No obvious cardiac masses.

**Heart rhythm:** ECG reveals a sinus rhythm with an average HR of 140bpm.

**2-Dimensional Measurements**

Ao diam (cm)	3.0
LA diam (cm)	5.9
LA:Ao (Swe)	2.0
IVS thickness (cm)	1.1
LVID diastole (cm)	8.9
PW thickness (cm)	1.2
LVID systole (cm)	8.4
FS (%)	5

**Doppler Measurements**

PV Vmax (m/s)	0.4
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	4.4
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

26102

**DATE**

8/30/22

**INTERPRETATION OF THE FINDINGS**

Marked LV dilation and systolic dysfunction is identified, consistent with dilated cardiomyopathy (DCM). Mild MR is suspected to be secondary to dilation. The LA is severely enlarged, indicating risk for progression to congestive heart failure in the future. No additional issues are identified in this study.

Dilation and dysfunction can be primary in nature (primary DCM) or develop secondary to taurine deficiency, myocarditis, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. While primary disease is certainly possible in this predisposed breed, the history is highly concerning for a possible diet-related issue. A diet change is certainly recommended, in addition to a Taurine supplement as below. Regardless of cause, the severity of the findings likely reflect end-stage disease with little reversal/improvement suspected.

Given what is seen here and high risk for imminent complication, **recommend full cardiac support as below**, even without reported clinical signs. Prognosis is guarded at this stage with most dogs succumbing to CHF within 6-12 months. There may be risk for



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development of congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death in the future.

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**RECOMMENDATIONS**

- Immediate diet change recommended
- Administer heart muscle support Pimobendan 0.3mg/kg PO q12h.
- Administer Furosemide/Lasix 1mg/kg PO q12h.
- Institute Spironolactone 1-2mg/kg PO q12h (available in 25 and 50mg tablets).
- Administer taurine supplement 1000mg PO q12h.
- Consider hydrocodone with homatropine, 0.2 – 0.4 mg/kg PO up to q4-6 hours PRN for cough (available in 5/1.5mg tablets or 5mg/5ml solution).
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Elective anesthesia is not advised.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF going forward.

**PLAN**

- Monitor renal values and BP in 1-2 weeks, then every 3-4 months lifelong. If doing well and BP is >130mmHg, institute ACE-I 0.5mg/kg PO q12h.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

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**HOSPITAL NAME**

Mass Veterinary  
Services

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Dr. Masloski

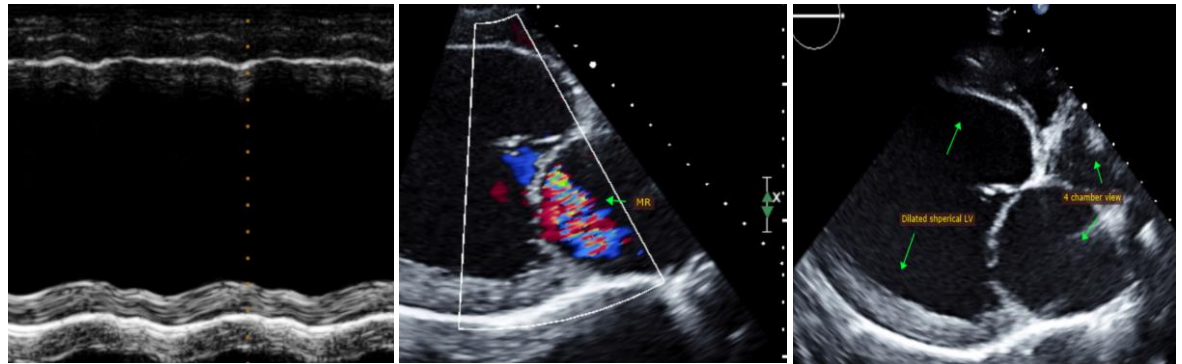
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**IMAGES**



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.

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**Echocardiogram performed by:**

Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)