



PATIENT

Abby Monser

SPECIES

Canine

BREED

Doberman Pinscher

SEX

Female Spayed

AGE

9 years

WEIGHT

92lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kitz, DVM

HOSPITAL NAME

Woodlands Animal
Hospital

REFERRING VET

Dr. Kitz

INVOICE

47060

DATE

3/2/26

PRESENTING CLINICAL SIGNS

History: Presented 2/25/26 with history of deep wheezing cough and lethargy. Irregularly irregular heart rhythm auscultated. CXR showed CHF, probable DCM. ECG report (SonoPath): showed atrial fibrillation. Started on Furosemide at 80mg q12h on 2/25 following initial IV administration at the time of visit of 100mg; also started on Vetmedin at total daily dose of 32.5mg divided TID and added Diltiazem 60mg TID on 2/28. Owner reports patient still lethargic but not wheezing as much as previously. BP: at initial visit was ~102mmHg, recheck today on 3/2 is 155mmHg.
-Abnormal PE/Chem/CBC/UA Results: irregularly irregular rhythm still present with no significant changes noted. Patient is very stressed today. Sedated with Butorphanol IV +micro dose of Ace (0.08 cc). A recheck ECG was unable to be obtained.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Severe left ventricular dilation with diminished systolic function. Severe left atrial enlargement. The mitral valve appears normal in form and function, with no obvious prolapse into the left atrial lumen. Mild central mitral regurgitation secondary to annular stretch. Normal MR velocity. Decreased LV wall thickness and increased sphericity. The tricuspid valve appears normal in form and function with trace tricuspid regurgitation. Mild right atrial and ventricular dilation. The aortic valve is normal in morphology and mobility. No subvalvular ridge present; decreased LVOT and RVOT velocities. No aortic insufficiency. Normal pulmonic valve with no pulmonic insufficiency seen. No pericardial or pleural effusion noted. No obvious cardiac tumors. Rapid AF throughout.

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	4.7	NM	2.0	2.2	14	20	1.0
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	1.8	0.8	41.7	5.1	5.8	5.0
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				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. Adapted from June Boon, Veterinary Echocardiography, 1998 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435 Hansson et al, Vet Rad and Ultrasound 2002 Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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)



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Unfortunately, this patient has end-stage cardiomyopathy and systolic dysfunction. This is causing dilation and overload of the left heart resulting in insufficiency of the mitral valve. The degree of dilation and pump failure is resulting in congestive heart failure (pulmonary edema), as described by the history. The right heart is also affected, which may be due to the arrhythmia.

Systolic failure can be primary in nature (DCM) or secondary to taurine deficiency, myocarditis, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. In a predisposed breed such as a Doberman, this is considered genetic primary DCM until proven otherwise. A diet history should be sought. Prognosis is poor to grave at this stage in the disease process, with an average survival time of <6 months. Most Dobermans will succumb to either refractory CHF or sudden arrhythmic death at any time, and this risk should be relayed regardless of therapy.

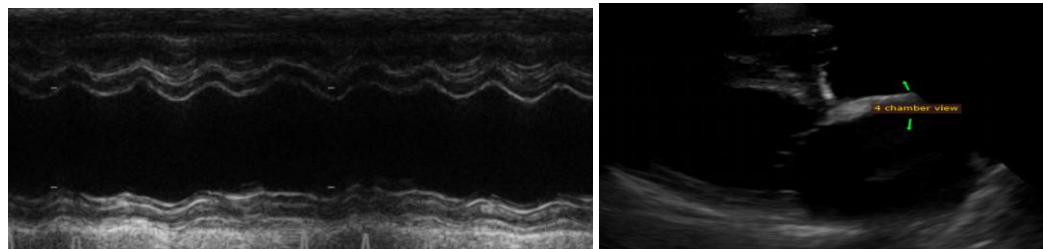
Continuing full cardiac supportive medications is recommended as below with hospitalization if needed. Cases of systolic failure are at high risk for malignant tachyarrhythmias (such as VT) and sudden death. **The recent diagnosis of atrial fibrillation certainly persists throughout the study; however, it is difficult to assess response to Diltiazem without a repeat ECG. That said, if this is unable to be done and the patient's heart rate is still elevated a dose increase is recommended as below.**

Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, worsening labored breathing, exercise intolerance or collapse episodes in the future. Monitoring of sleeping breathing rates at home is recommended to assess response to medications and recurrence of CHF in the future.

PLAN:

Reassess ECG as described in the ECG report. If not possible, increase dose to 120mg PO q8h. Continue Lasix, Pimobendan and Diltiazem as prescribed. Institute Spironolactone 1-2mg/kg PO q12h. Recheck renal panel, BP and clinical response in 5-7 days then every 3-4 months lifelong. If doing well and BP >130mmHg, institute ACE-I 0.5mg/kg PO q12h. Reassessing a HR/ECG should be revisited as well, with addition of digoxin if still outside the target window (140-160bpm). Recheck echocardiogram in 6 months to screen for progression, sooner if clinical signs arise in the interim.

IMAGES





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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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