



PATIENT

Draco McDermott

SPECIES

Canine

BREED

Pitbull

SEX

Neutered Male

AGE

6 Years

WEIGHT

57.5 pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Kristen Carpenter

HOSPITAL NAME

Pennridge Animal
Hospital

REFERRING VET

Dr. Jen Makem

INVOICE

15305

DATE

04/21/26

PRESENTING CLINICAL SIGNS

Hx: Sedated with butorphanol. Patient presented 3/11/26 for mild weight loss. A Grade III Lsystolic and Grd II R systolic murmur was ausculted. No arrhythmias. Patient also has intermittent coughing and owner perceived exercise intolerance. Current Diet: Edgard and Cooper Grain Free food. No current medications

Diagnostics - 3/11/26 Chem/CBC: WNL. Fecal NOS. 4dx neg x4 - 3/11/26 ProBNP: 823 (0-900) - 4/21/26 Chest radiographs: VHS 10.8 VLAS 1.65. Reverse D sign on VD view indicating possible right sided cardiac enlargement. No pulmonary edema or pleural effusion - 4/21/26 Blood Pressure: 160 mm HG systolic (average)

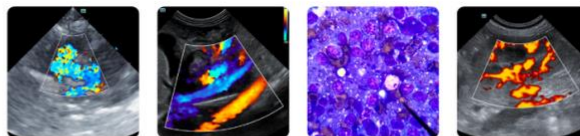
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	--	NM	1.31	29.01	--	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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				
PATIENT	NM	3.08	1.2	26.14	4.5	4.79	3.4

Cardiac Presentation

The mitral valve leaflets are normal with trivial mitral regurgitation of the mitral valve. There is no prolapse of mitral valve leaflets. The left atrial size is normal. LV internal dimensions during diastole are increased and systolic function is low normal to mildly reduced in the face of trivial mitral regurgitation. The left ventricle is hypodynamic without thinning of the left ventricular walls. There is normal right atrial size without evidence of tricuspid regurgitation. The tricuspid valve leaflets are normal. There is no 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.

ULTRASONOGRAPHIC FINDINGS



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- Mild left ventricular eccentric hypertrophy with low normal to mildly reduced left ventricular systolic function.
- Normal left atrial size.
- Trivial mitral regurgitation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has mild eccentric left ventricular hypertrophy with low normal left ventricular systolic function. Technically, the measurements remain within normal limits, however given the appearance of the left ventricle, there is concern for a dilated cardiomyopathy phenotype, especially with the patient's diet history provided.

Can consider starting Pimobendan, however the cause of the patient's clinical signs is not secondary to the changes found on echocardiogram, and further investigation is recommended. If starting Pimobendan, I recommend a dose of 0.27 to 0.32 mg/kg twice daily. Either way, if there is no history of a food allergy, I would encourage a diet change.

It recommended to consider switching to a grain-based commercial dog food diet made by Purina, Science Diet, or Royal Canin (if there is no history of a food allergy) since there is currently an association between cardiac changes (poor pumping function and dilation of the heart) and multiple grain free and limited ingredient diets. Current investigation is still underway, and the definitive causative factor has not been identified. A grain source including corn or barley should be seen on the dog food label. Substitutes for common grain sources such as peas, lentils and even rice have been implicated in cardiac dysfunction. Any diet change should be gradual by adding small amounts to the current diet first and then increasing the ratio of the new food gradually over two weeks to avoid gastrointestinal upset.

Cardiac supplementation can be considered for this patient. 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 (i.e.: starting one and then a week later starting another) due to the potential for stomach upset.

A recheck echo is recommended in 6 months, sooner if the patient's murmur is worsening or develops arrhythmias. Also recommend ensuring the patient is heartworm negative and on year round heartworm prevention.



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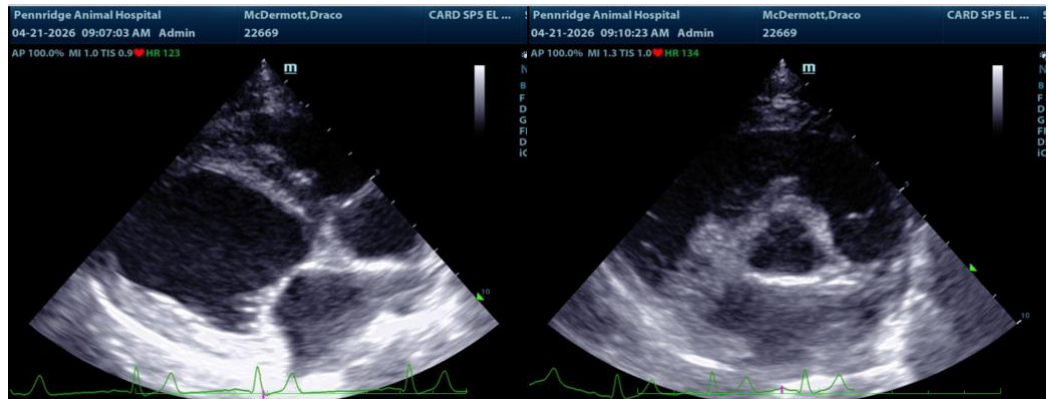
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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