



PATIENT PRESENTING CLINICAL SIGNS

Gracie Foster

History: Heart murmur Grade II/VI since 8/2020, asymptomatic O has changed diets multiple times, starting with raw and Go (boutique diet) - currently on Merrick Life Grains - and Taurine 500mg 2 capsules once daily.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: HM Grade II/VI, BP 120 9/30/2020 had echo - petrays report conclusion and recommendations as follows: The echocardiogram shows mild left and right ventricular dilation with reduced systolic function and mild changes to the atria. The appearance of the left ventricular may be an incidental finding and can be seen with very athletic dog but this may be less likely in this case. It may also be an indication of early dilated cardiomyopathy, which can be idiopathic in origin but can also be seen with a nutritional deficiency, particularly in a dog of this age. The appearance of the right heart may also be related to dilated cardiomyopathy but a congenital lesion, tricuspid dysplaia may also be playing a role. The murmur may be due to mitral or tricuspid regurgitation but an innocent flow murmur with turbulent flow in the left or right ventricular outflow tract or other changes cannot be ruled out. The heart appear to be compensating for the changes with the normal

BREED

Labrador Retriever

SEX

Spayed Female

Recommendations No cardiac medications are recommended based on this exam but if the dog were being fed a BEG diet (boutique, exotic meat or grain-free diet), this can be switched to a more well researched diet such as from Royal Canin, Science Diet or Purina Proplan lines. Taurine supplementation starting at 250 to 500 mg PO BID and increasing to 1,500 mg PO BID for at least 2 to 3 months can also be considered in this case. Anesthesia would likely be well tolerated if this were necessary in the near future but, if pursued, fluid therapy can be used judiciously during the procedure to ensure the dog does not become fluid overloaded and medications that increase heart rate such as atropine, glycopyrrolate or ketamine can be avoided as part of the protocol. The echocardiogram can be repeated in 6 months to monitor for any further changes to the cardiac structure. The heart rate can also be monitored to ensure it remains in the normal range

AGE

2 years

WEIGHT

71 lbs

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** was mildly enlarged with a 1.5:1.0 ratio with the left atrium. The right atrium measured 3.7 cm. **Tricuspid** valve revealed thickened and elongated leaflets. Color flow Doppler assessment of the tricuspid valve followed by spectral Doppler is warranted for further definition. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

IMAGING PERFORMED BY

Dr. Striano-Kaplan

HOSPITAL NAME

RamseyVH

REFERRING VET

Dr. Straino-Kaplan

INVOICE

91189

DATE

8/12/21



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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			1.15		29	56	0.4
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				
PATIENT	127	1.5	0.6	71 lbs	2.86 max	3.66	

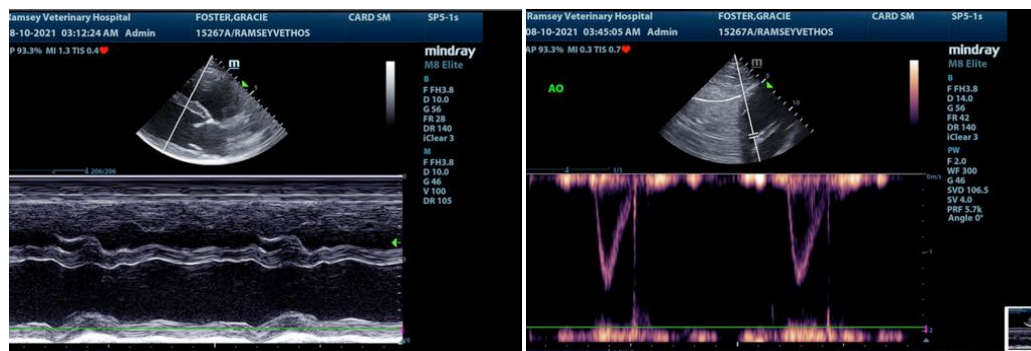
ULTRASONOGRAPHIC FINDINGS

Suspect tricuspid dysplasia.

Mildly enlarged right atrium.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the age of the patient and breed some mild level for primary tricuspid dysplasia may be an issue. However, further imaging is necessary to define. There is no evidence of functional disease. No contraindication to anesthetic procedure if necessary. I suspect tricuspid dysplasia. Further Doppler evaluation of the tricuspid valve is necessary for confirmation. A recheck echocardiogram is recommended in 6-12 months or earlier if any clinical signs of exercise intolerance develops. However, there is a good potential that the changes will not be a clinical issue in the lifetime of this patient.





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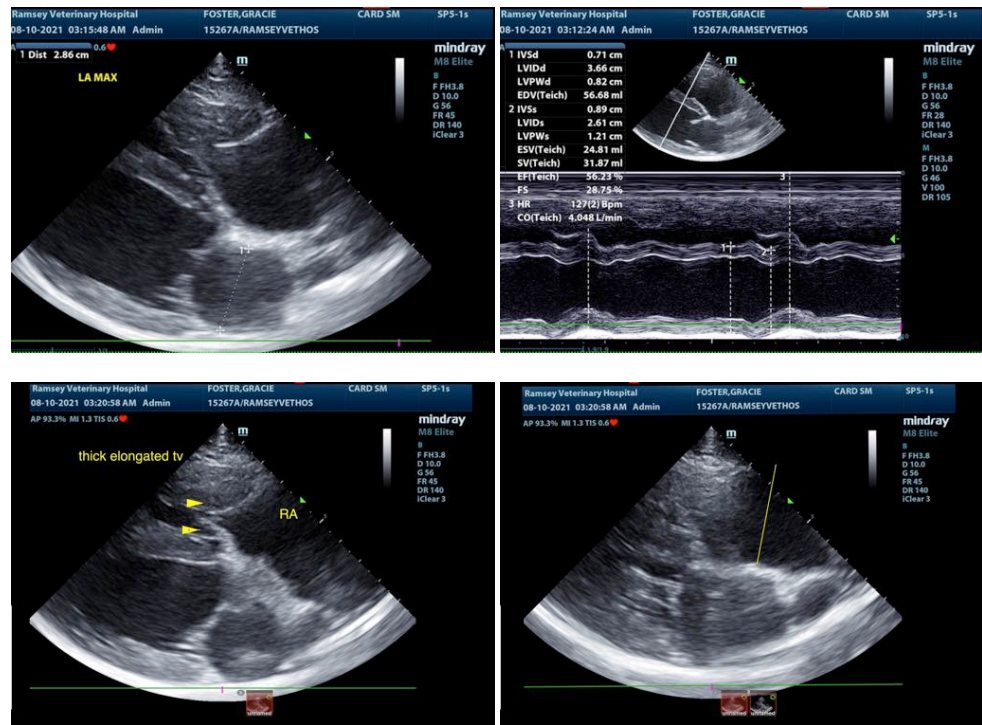
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. 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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