



**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: 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 dysplasia 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 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

**BREED**

Labrador Retriever

**SEX**

Spayed Female

**AGE**

2 years

**WEIGHT**

71 lbs

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

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 enlarged in this patient with a 1.5:1 ratio with the left atrium in 4 chamber long axis. No evidence of masses was noted. Minor **tricuspid** insufficiency was noted. Minor **right ventricle** dilation was noted. **Pulmonic valve** was thickened and irregular. Pulmonic velocity is excessive at 4 m/sec with significant turbulence at the pulmonic valve, which is thickened and dysplastic. Secondary pulmonic insufficiency was noted. 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**

Ramsey AH

**REFERRING VET**

Dr. Striano Kaplan

**INVOICE**

91594

**DATE**

8/31/21



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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		30	57	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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	94	1.39	4.0	71 lbs	3.01 max	3.72	

**ULTRASONOGRAPHIC FINDINGS**

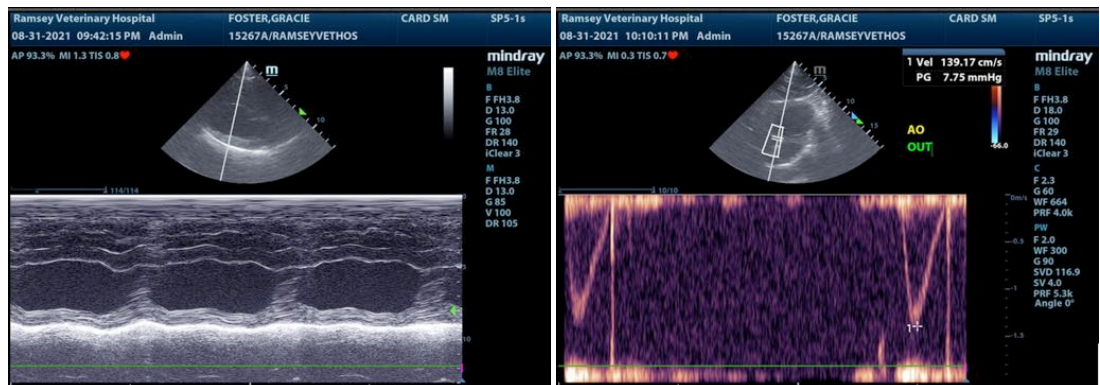
Pulmonic stenosis with secondary pulmonic insufficiency.

Concurrent tricuspid insufficiency, but given the angle the actual velocity was not able to be performed.

Right atrial enlargement, minor right ventricular dilation.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend a referral to an interventional cardiologist for potential balloon valvuloplasty. No specific therapy is recommended at this time.





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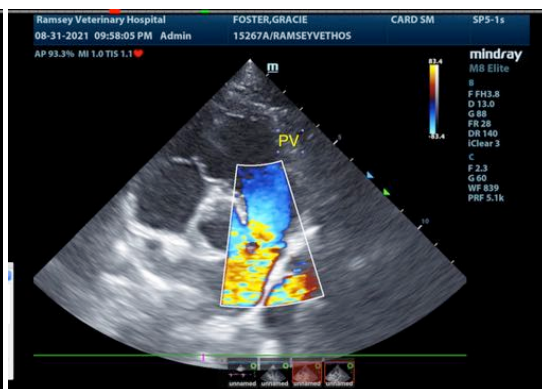
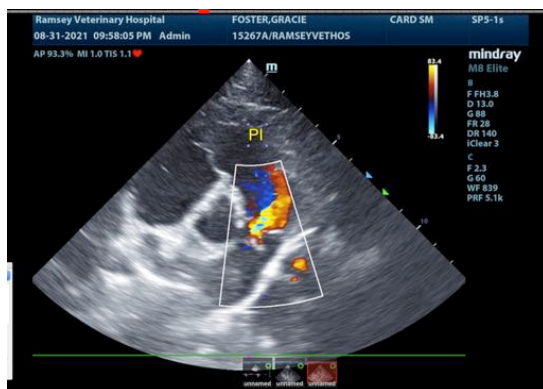
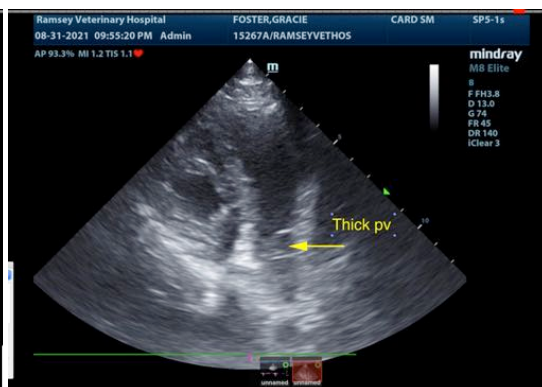
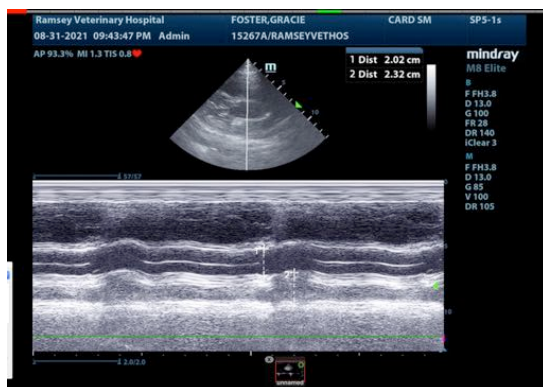
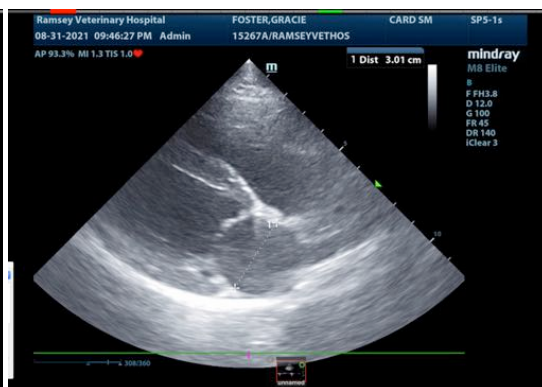
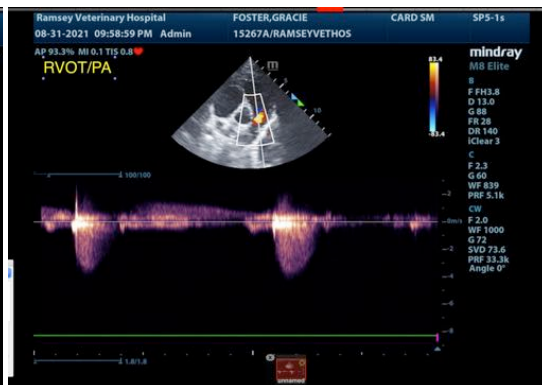
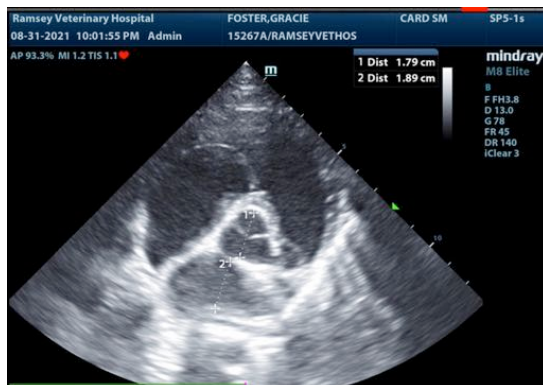
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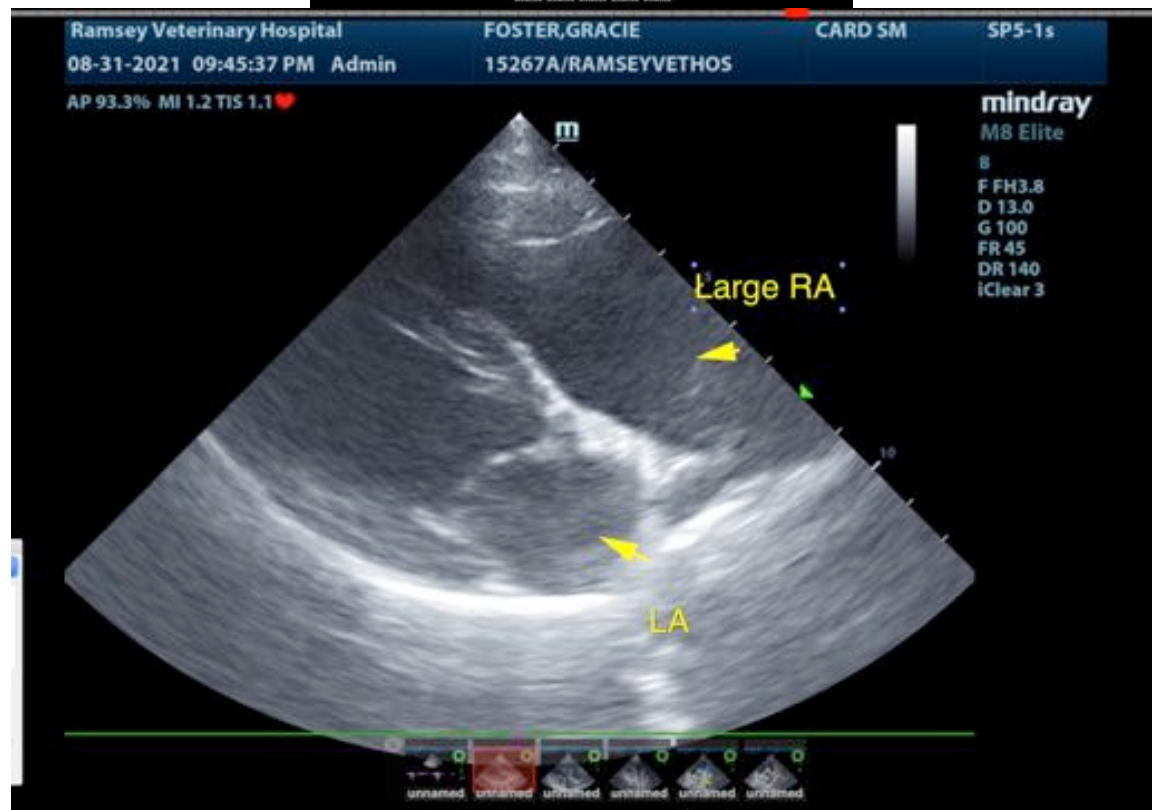
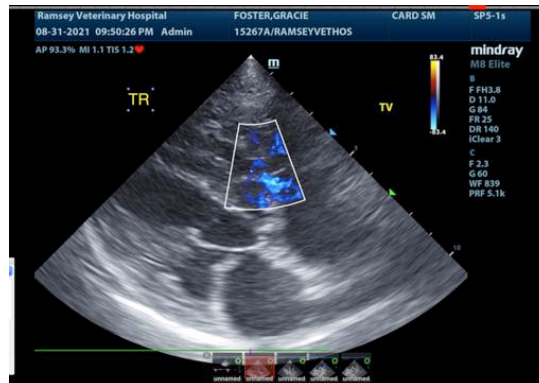
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com