



PATIENT PRESENTING CLINICAL SIGNS

Bruce Green

History: The patient has been diagnosed with atrial fibrillation and supraventricular tachycardia controlled by Sotalol 80 mg bid. The examination today is part of his annual evaluation.

Abnormal PE/Chem/CBC/UA Results: no abnormal results

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Great Dane

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. Trivial **mitral** valve insufficiency was noted with a centralized jet. 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. **Hypo contractility** of the ventricular walls was noted. Minor aortic insufficiency was noted. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. 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. Arrhythmogenic activity may be playing a role.

SEX

Neutered male

AGE

4 years

WEIGHT

160 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Newell

HOSPITAL NAME

Simplisound

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base;)	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	1.8	11	23	0.87
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	BELOW	BELOW	BELOW	BELOW
PATIENT		1.29	0.78	160 lbs		5.45	

REFERRING VET

Dr. Hahn/Newell

ULTRASONOGRAPHIC FINDINGS

Hypo contractile heart wit arrhythmogenic activity.

INVOICE

76279

Some parameters of DCM were present.

DATE

7/27/23



INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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Nutritional cardiomyopathy and myocarditis should all be considered in this patient. Taurine levels would be appropriate. I recommend adding Pimobendan at 0.3 mg/kg b.i.d. Ace inhibitor at 0.5 mg/kg s.i.d. progressing to b.i.d. and Spironolactone at 1-2 mg/kg b.i.d. should be considered. Thyroid assessment is also warranted as well as baseline cortisol to ensure that hypothyroidism or Addison's are not playing a role. It is difficult to say whether the arrhythmogenic activity is playing a role in the DCM presentation. However, given the excessive EPSS and LVIDD parameters with minor left atrial enlargement along with the poor contractility I believe there is a DCM type component or nutritional cardiomyopathy or myocarditis issue in this patient. The Sotalol may be depressing the contractility slightly as well; however, I recommend implantation of at least Pimobendan if not ace inhibitor and Spironolactone. Reassessment is recommended in 4-6 weeks as well as assessing thyroid and cortisol levels to rule out underlying endocrinopathy. The taurine levels were also optimal.

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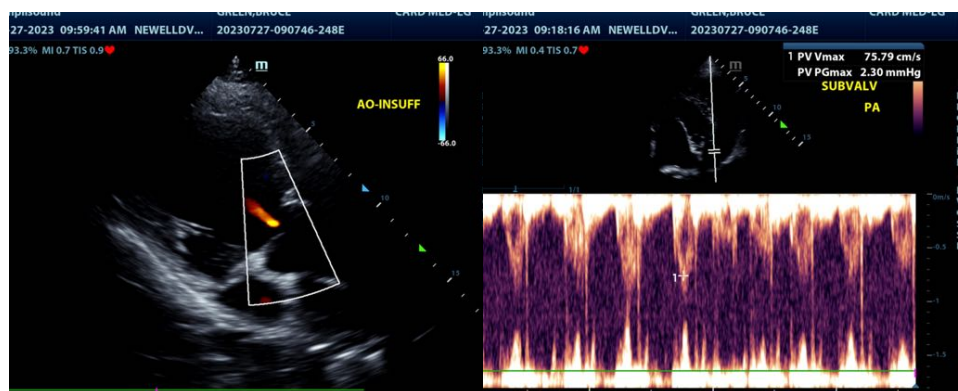
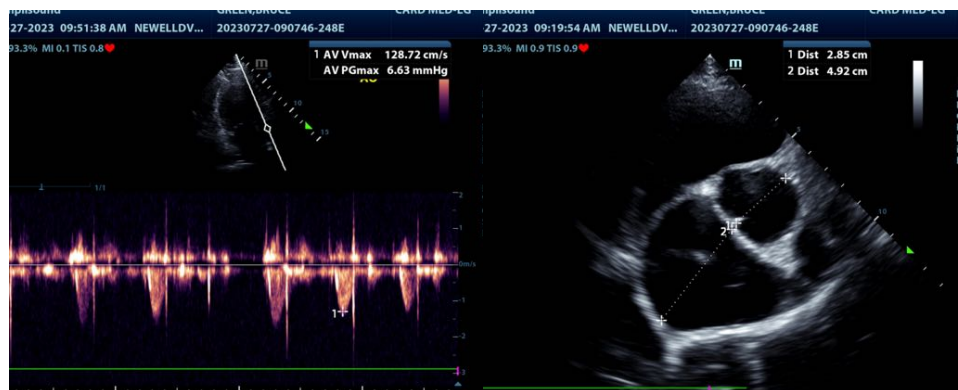
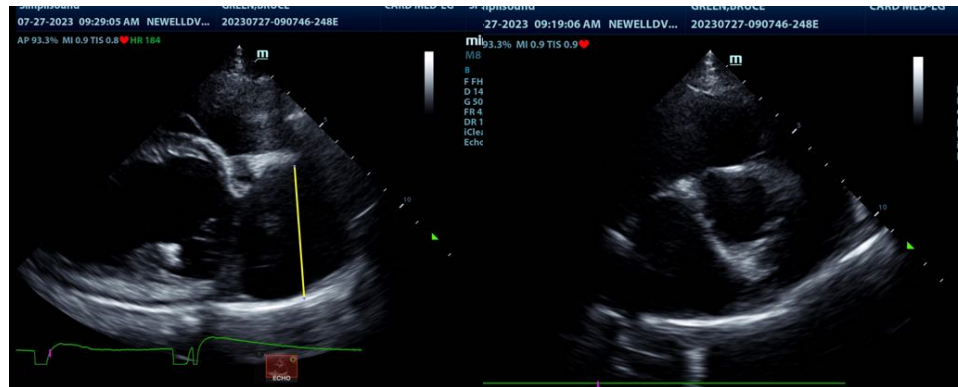
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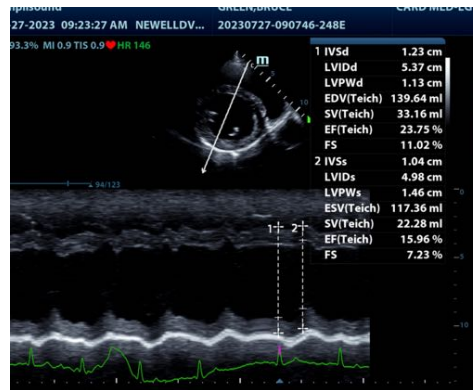
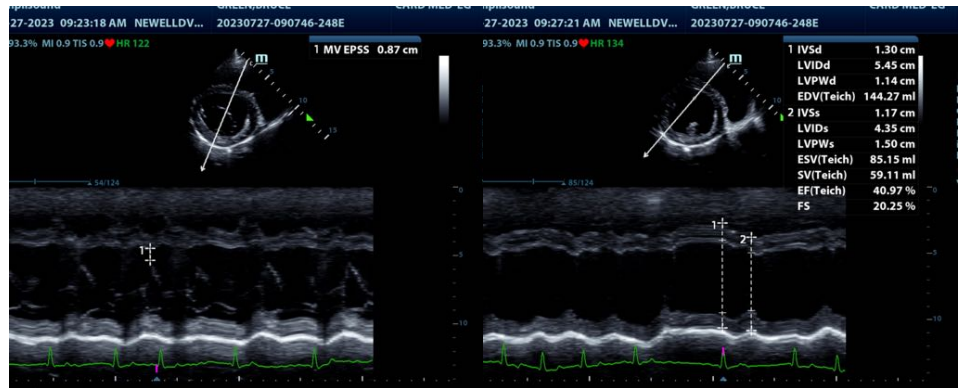
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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