

PATIENT

Ella Hartley

SPECIES

Canine

BREED

Boston Terrier

SEX

Spayed Female

AGE

11 Years 8 Months

WEIGHT

19.2 pounds

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Hathleen Byrnes

HOSPITAL NAME

Midway Animal Clinic

REFERRING VET

Dr. Lakey

INVOICE

14575

DATE

03/24/26

PRESENTING CLINICAL SIGNS

- P presented for echo due to murmur and episodes of collapse/seizures when getting excited or following activity
- Owner reports P will get excited or after running around will start coughing and then fall over

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	6.73	--	1.76	1.61	52.66	--	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	187	1.67	1.26	8.72	3.0	3.0	1.42

Cardiac Presentation

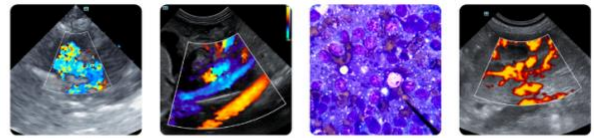
The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflet. The left atrial size is mildly to moderately increased. Left ventricular internal dimensions during diastole are within normal limits and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with moderate tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and moderate to severe pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is 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.

ECG

Sinus rhythm with a sinus tachycardia and baseline artifact.

ULTRASONOGRAPHIC FINDINGS

- DVD stage B2.
- Mild to moderate left atrial enlargement.
- Moderate to severe pulmonary hypertension.



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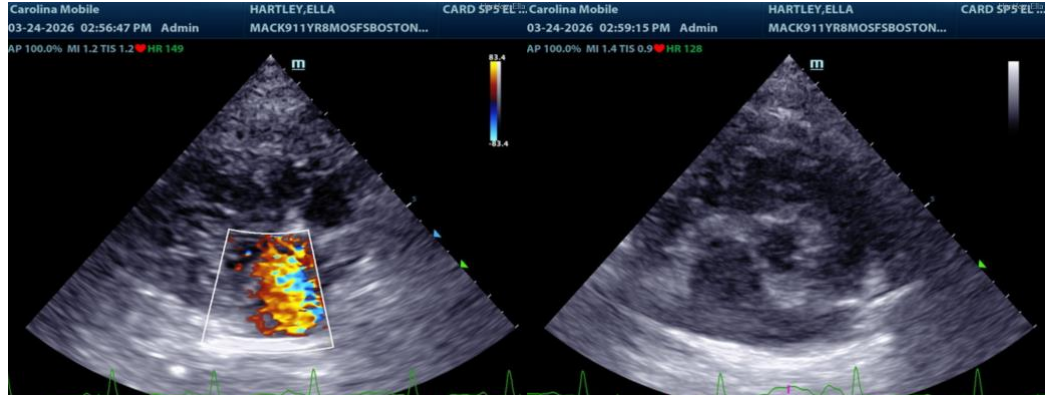
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease, stage B2 and moderate to severe pulmonary hypertension. Given the collapse episodes, I think both Pimobendan at a dose of 0.27 to 0.32 mg/kg and sildenafil at a dose of 1 to 3 mg/kg every 8 hours is recommended. The Pimobendan should be twice daily. Based upon the rhythm strips provided, a cause for the collapse is not identified.

Given the pulmonary hypertension, recommended ensuring the patient is heartworm negative and can consider a full workup for underlying reasons for pulmonary hypertension. The pulmonary hypertension can be secondary to the patient's left-sided heart disease as well. Close monitoring of breathing rates is recommended. The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

After starting therapies, a recheck echo is recommended in two to four months, sooner if the patient is decompensating. Unfortunately, with pulmonary hypertension and collapse episodes, there is a risk of patients passing away suddenly. Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.



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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