



PATIENT

Riley Humphreys

SPECIES

Canine

BREED

Boston Terrier

SEX

Male Neutered

AGE

5 years

WEIGHT

15.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Rachel Runnells, RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

Dr. Lyle

INVOICE

21026

DATE

9/14/21

PRESENTING CLINICAL SIGNS

History: Presented for FHO 8/31. After sx had episodes of panting, tachycardia, and syncope. Afterwards, owner stated that patient had been having episodes of fainting for months after playing.
-Abnormal PE/Chem/CBC/UA Results: (July) Elevations of AST, ALKP, BUN, CREA, CPK, WBC (Neut and Mono). Latest bloodwork 8/30 - all WNL except BUN 37 (6-31).
-Radiographs: Mildly enlarged heart with some loss of cardiac waist.

ECHOCARDIOGRAM FINDINGS

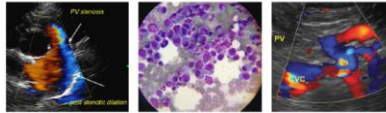
2D, m-mode, color flow and doppler imaging is available. Normal mitral valve leaflets with no prolapse into the left atrial lumen. Trace mitral regurgitation with a normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with trace tricuspid regurgitation. Mild right atrial enlargement. The right ventricular appears enlarged with suspect RV hypertrophy. Subtle septal flattening suspected although not confirmed in ancillary views. . diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic valve appears normal. Mild MPA dilation. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

CARDIAC CHART

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	NA	NA	1.1	1.2	40	73	0.27
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	BELOW	BELOW	BELOW	BELOW
PATIENT	67	11.3	1.0	7.0	1.4	2.0	1.2
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The primary abnormality identified is right heart enlargement without an obvious cause. The appearance of the right ventricle has suspicion for pressure overload, although no obvious cause is identified. Pulmonic stenosis is ruled out as the valve appears largely normal and the velocity through the region unremarkable. Other possibilities include primary pulmonary hypertension, a

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peripheral stenosis (not visualized here), other pathologies affecting the right heart (such as a right to left shunt), etc.

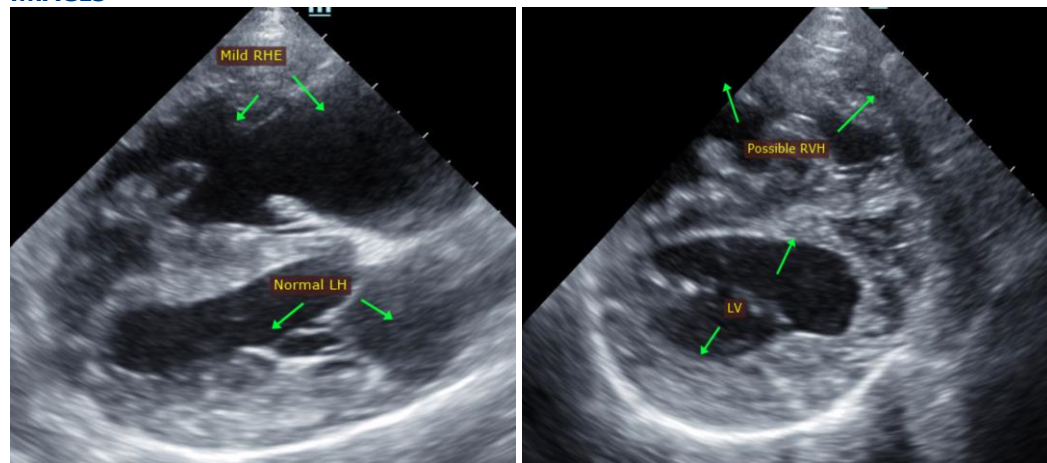
Given these findings in a dog with frequent syncope, strongly recommend referral to a local Cardiologist in this case for advanced echocardiography. If declined, it is difficult to know if and what treatment may be useful. In this instance can consider a trial of Sildenafil; however, if no clinical improvement in symptoms is noted this should be discontinued.

Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

Highly recommend referral in this case for advance echocardiography. If declined, consider a Sildenafil trial 1-2mg/kg PO q8h for 2-4 weeks. If there is no improvement in symptoms, this should be discontinued, and referral again strongly recommended.

A recheck echocardiogram is recommended in 6 months to screen of progressive changes.

IMAGES

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.

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

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