



PATIENT PRESENTING CLINICAL SIGNS

History: Presented 6/2022 for hindlimb ataxia and falling to the side. Several week duration of hacking/gagging. Gallop rhythm. Sedated with Torb.
-Current medication: Methylprednisolone, trazadone.
-CXR report: Possible bulge in the region of the pulmonary artery. Suspect artifact. No cardiomegaly.

SPECIES

Canine

BREED

Rat Terrier Mix

SEX

Female Spayed

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with mild to moderate tricuspid regurgitation. Velocity consistent with mild pulmonary hypertension. Mild right heart prominence suggests early pulmonary hypertension. Mild RV hypertrophy. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Prominent aortic root. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

CARDIAC CHART

AGE

12 years

WEIGHT

6.8lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

HOSPITAL NAME

Littlestown VH

REFERRING VET

Dr. Kubala

INVOICE

31529

DATE

/23

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	3.2	NM	1.0	63	93	NM
CANINE CARDIAC PARAMETERS	HR (BP M)	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	150	2.0	1.0	3.1	1.3	1.6	0.6
*Normal chamber parameters expressed as a mean value				3	1.27	2.46	1.36
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40	2.74	1.60
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				10	1.50	3.27	2.06
				15	1.83	3.71	2.43
				20	2.02	4.14	2.80
				25	2.18	4.48	3.10
				30	2.33	4.83	3.39
				35	2.48	5.17	3.69
				40	2.62	5.48	3.96
				50	2.88	6.07	4.46

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The primary abnormality identified is evidence of early pulmonary hypertension. This is based upon right heart prominence in a coughing dog, as the TR is mild to moderate and the velocity mildly elevated. The left heart appears normal; however, the aortic root appears prominent, and a baseline BP is recommended. No additional issues are noted in this study.



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Cookie Trone

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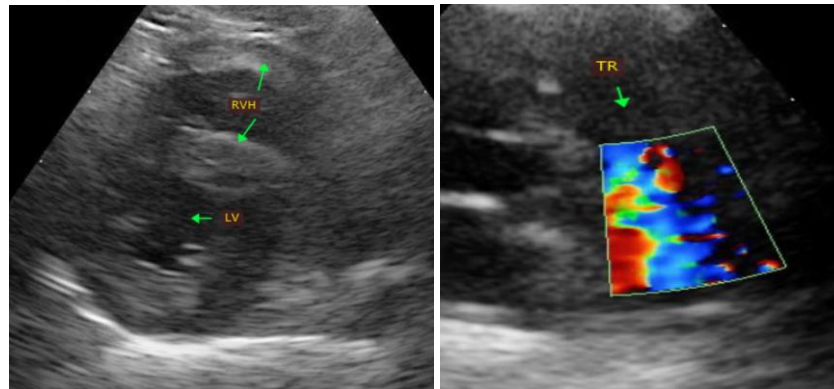
Given these findings, the cough is certainly non-cardiac in origin and primary respiratory disease is considered more likely. In a dog with chronic respiratory signs, there is certainly risk for progressive pulmonary hypertension going forward, and continued screening for associated symptoms is advised. Signs of PAH include exertional dyspnea or collapse/syncope. Maximizing cough control is the best way to combat development of pulmonary hypertension in the long run, utilizing cough suppressants, intermittent antibiotics/steroid taper for acute flares, bronchodilators, etc. If refractory, advanced evaluation should be considered (TTW/BAL).

In a dog without significant left atrial enlargement, no cardiac medications are clearly indicated and Pimobendan can be safely discontinued. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

Anesthetic risk is considered mild if needed. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 due to potential for hypoxia.

Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

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.

HOSPITAL NAME

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REFERRING VET

Dr. Kubala

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