



PATIENT

Baxter Lawson

SPECIES

Canine

BREED

Shih Tzu

SEX

Male Neutered

AGE

14 years

WEIGHT

14 lbs

PRESENTING CLINICAL SIGNS

History: Progressive nonproductive cough since April. Not exacerbated by stimulation. Was on prednisone for IMHA but went into remission in May and has not been on prednisone since then. BP 155/134. Sedation Butophanol IV

Meds: Clavamox and Hydrocortone

CXR report: tracheal and bronchial collapse; bronchial pattern, mild LH enlargement
No murmur auscultated. Sinus arrhythmia. Resp: nonproductive cough w/stridor and wheezing. Diffuse crackles throughout lung fields), T (102F/38.9C), P (130), R (20), (Labwork: CBC-elevated PLT otherwise NSF including HCT; CHEM: mild elevation in BUN and ALP otherwise NSF; USG: 1.032), Heartworm test negative

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 trace/mild tricuspid regurgitation. Velocity consistent with mild to moderate pulmonary hypertension. Mild right atrial and ventricular enlargement. Mild MPA dilation. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Trace aortic and pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

CARDIAC CHART

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Loetitia St-Jacques,
LVT/RVT

HOSPITAL NAME

Sierra Pet Clinic

REFERRING VET

Dr. KH

INVOICE

32322

DATE

8/11/23

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	3.5	NM	1.2	52	86	0.38
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	83	1.2	0.92	6.4	1.6	2.3	1.1
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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 only abnormality identified is evidence of mild to moderate pulmonary hypertension. This is based upon the TR velocity in addition to mild right heart/MPA enlargement. This is likely



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subclinical and developing secondary to the cough. The left heart is largely normal, without significant pathology.

SPECIES

Canine

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).

BREED

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No cardiac medications are clearly indicated. Prognosis with pulmonary hypertension is dependent upon ability to control the respiratory disease and remains guarded at this time. 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.

AGE

14 years

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.

WEIGHT

14 lbs

PLAN

Continue workup/treatment for the cough is recommended as dictated by the clinical picture. If exertional syncope or dyspnea are noted, add Sildenafil 1-2mg/kg PO q12h.

INTERPRETED BY

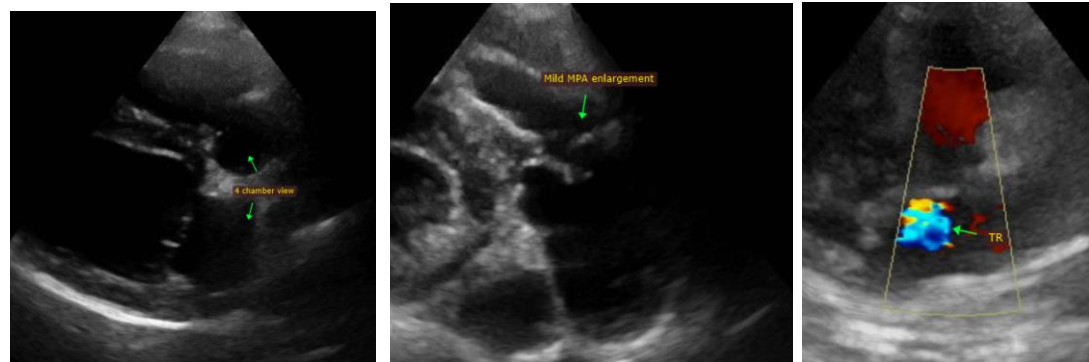
Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

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

IMAGES

IMAGING PERFORMED BY

Loetitia St-Jacques,
LVT/RVT



HOSPITAL NAME

Sierra Pet Clinic

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.

REFERRING VET

Dr. KH

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.

INVOICE

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Maggie Machen Lamy, DVM
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DATE

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