



PATIENT

Izzie Theriault

SPECIES

Canine

BREED

Chihuahua

SEX

Female Spayed

AGE

15 years

WEIGHT

6lbs

PRESENTING CLINICAL SIGNS

History: Grade I/VI heart murmur. Cough. Crackles R mid lung field. History of seizures, managed with Phenobarbital 16.2mg, 1/2 t BID.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.

Left atrium: The left atrium is normal.

Mitral valve: The mitral valve is mildly thickened with mild prolapse into the left atrial lumen. Mild to moderate eccentric mitral regurgitation. Normal velocity.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Moderate RV dilation with hypertrophy.

Right atrium: Mild RA dilation.

Tricuspid valve: The tricuspid valve appears mildly thickened with mild prolapse. Moderate tricuspid regurgitation. Velocity consistent with moderate to severe pulmonary hypertension.

Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. Trivial pulmonic insufficiency. Decreased RVOT velocity; laminar flow. Mild MPA and branch dilation.

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

Heart rhythm: ECG reveals a sinus rhythm with an average HR of 160bpm.

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

2-Dimensional Measurements

Ao diam (cm)	1.0
LA diam (cm)	1.2
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.6
LVID diastole (cm)	1.6
PW thickness (cm)	0.6
LVID systole (cm)	0.6
FS (%)	63

Doppler Measurements

PV Vmax (m/s)	0.5
AoV Vmax (m/s)	0.83
MR Vmax (m/s)	5.5
TR Vmax (m/s)	4.5
TR PG (mmHg)	80

IMAGING

PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Wignall Animal
Hospital

REFERRING VET

Dr. Dietrich

INTERPRETATION OF THE FINDINGS

Pulmonary hypertension (PAH) is present, as evidenced by right heart enlargement and significant TR with an elevated TR velocity. The estimated systolic pulmonary arterial pressure is 60-80mmHg, with normal being <25mmHg. This is causing pressure overload of the right ventricle. The left heart is normal in dimension with mild to moderate MR, indicating low risk for complication such as left-sided CHF. No additional issues are identified.

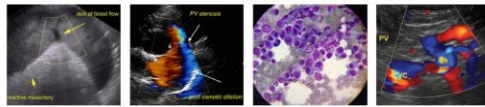
INVOICE

30256

DATE

4/14/23

Clinical signs of weakness, heavy breathing, cyanosis, and syncope are attributed to severe PAH. The underlying genesis of PAH is poorly understood in cases other than heartworm infestation, though it occurs with increased frequency in a variety of forms of chronic lung disease and in patients with idiopathic pulmonary fibrosis. If not performed, a heartworm antigen test is recommended. Given the chronicity of the disease seen here, in addition to reported crackles, COPD/chronic bronchitis and/or primary PF as an



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underlying cause. Patients with this degree of PAH and pulmonary disease can develop right-sided congestive heart failure (ascites), debilitating cyanosis, labored breathing and exertional syncope if poorly controlled.

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Given the severity of the findings, recommend both Sildenafil and Pimobendan going forward. Use of theophylline and/or taper course of anti-inflammatory steroids can also be beneficial in these cases, to treat exertional dyspnea or acute flare ups and decrease the inflammatory component as much as possible. PRN use of cough suppressants may also be beneficial. Unfortunately, the prognosis overall is poor, however I am hopeful we can provide some medical relief going forward.

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Prognosis is guarded until progression is evaluated.

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RECOMMENDATIONS

- Institute Pimobendan 0.3mg/kg PO q12h.
- Institute Sildenafil 1-2mg/kg PO q8h.
- Institute Hydrocodone if needed
- Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.
- Elective anesthesia is not advised at this time.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

WEIGHT

6lbs

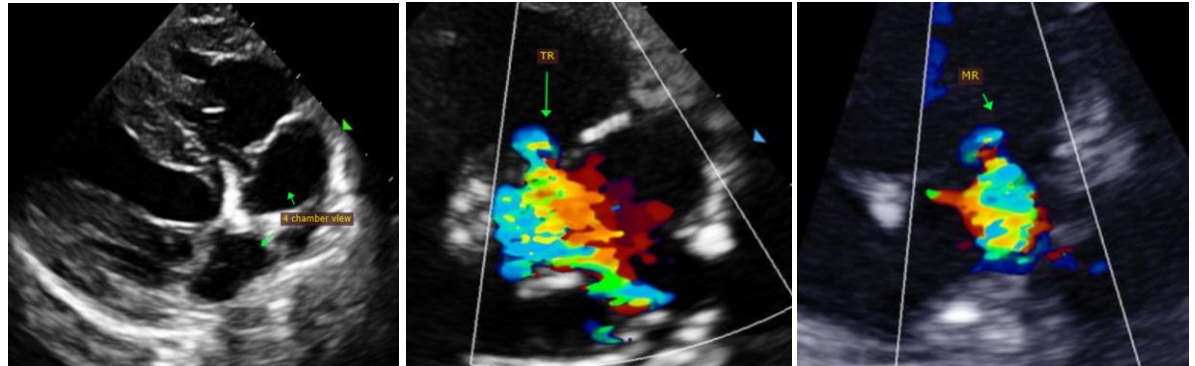
INTERPRETED BY

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PLAN

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

IMAGES



IMAGING PERFORMED BY

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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.

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

BREED

Chihuahua

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

SEX

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Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)

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