



PATIENT

Rocky Williams

PRESENTING CLINICAL SIGNS

Hx of grade III/VI LAS murmur. Difficulty breathing noted by owner
Crackles auscultated bilaterally Grade III/VI LAS murmur

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Shih Tzu

The **echocardiogram** presented a prominent **right heart** with mild **right ventricular** hypertrophy, without significant **tricuspid** regurgitation, and normal **right atrial** size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The **pulmonary artery** was uniformly prominent with mildly depressed pulmonic velocity measured on PW Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The **mitral valve** was not significantly insufficient and no significant **left atrial** dilation was noted. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. No evidence of tumor, pericardial or pleural effusion was noted. The visible **extra-cardiac** tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. No evident arrhythmic activity was noted during the exam. The hepatic veins were not dilated and there was no evidence of right-sided failure.

SEX

Neutered male

AGE

12 years

WEIGHT

18 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Waffle

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			1.15	1.3	30		0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT	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				
PATIENT				18 lbs	2.5	1.8	

INVOICE

96303

DATE

2/24/22

ULTRASONOGRAPHIC FINDINGS

Cor pulmonale presentation. Mild right-sided enlargement.

The hepatic veins were not dilated. Therefore, no evidence of passive congestion or right-sided failure.



PATIENT

Rocky Williams

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered male

AGE

12 years

WEIGHT

18 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dr. Waffle

INVOICE

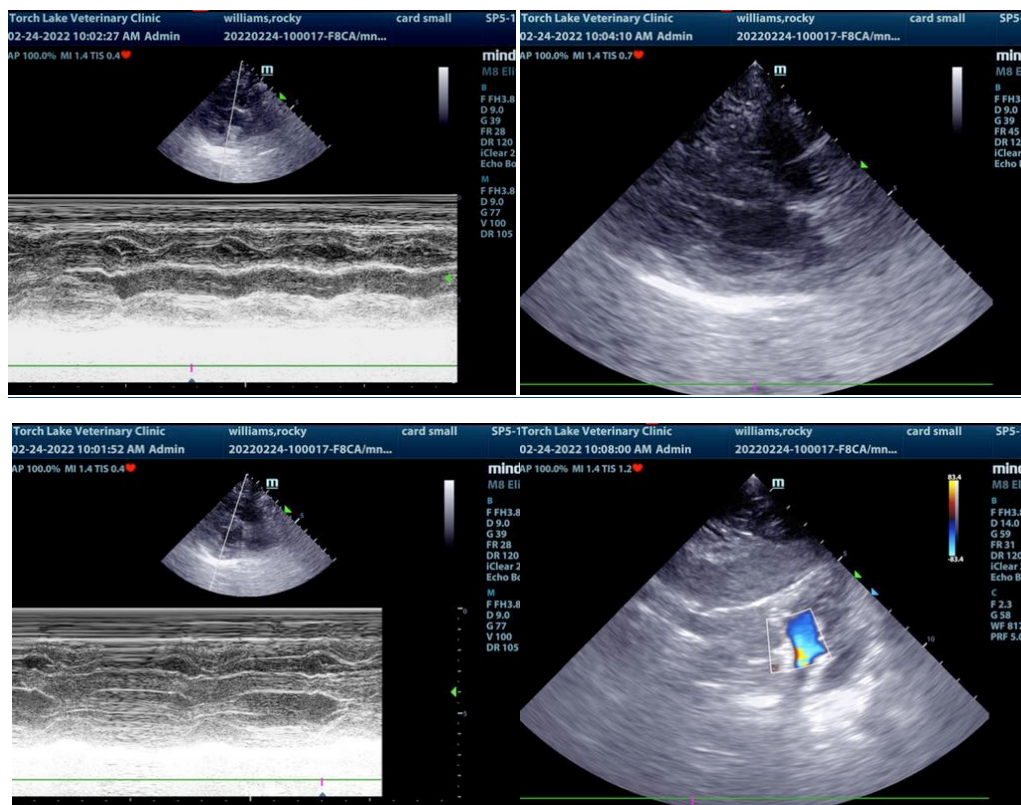
96303

DATE

2/24/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The respiratory signs are not cardiogenic at this time. Primary respiratory protocol is warranted. The heart murmur is presumed to be mitral, yet appears compensated. Given the respiratory interference full sedation with follow-up echocardiogram would be necessary. However, I can say that this is not a clinical issue.



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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com