



PATIENT

Minimo Morrison

SPECIES

Canine

BREED

Papillon

SEX

Male Intact

AGE

13 years

WEIGHT

5.06lbs

PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 4-5/6 heart murmur. Last "syncope" episode was 1 week ago, and 2 weeks prior to that (historical symptom). Started coughing about 2-3 months ago. He often goes days without a cough. Dog lives at 6,000 feet elevation. BP: 134mmHg
 -Current medications: Sildenafil 5mg BID Pimobendan 2mg/ml, 0.37cc BID.
 -Pertinent previous echo findings (6/2022 MML): severe MR, mod to severe LAE, mild LVE, mild RHE, mod PAH; TR 4m/s, LA 2.2, LV 2.7

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
 Moderate biventricular cardiomegaly. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. There is severe eccentric mitral regurgitation present. There is severe left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve, no insufficiency. The aortic valve appears normal. Mild right atrial/ventricular enlargement (subjective). Subtle septal flattening at end-systole. The tricuspid valve is mildly thickened with trivial tricuspid regurgitation. The tricuspid regurgitant velocity is consistent with moderate pulmonary hypertension. The pulmonary artery is significantly dilated. Mild PI with an elevated velocity. No pericardial/pleural effusion or cardiac masses are seen.

CARDIAC CHART

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Loetitia St-Jacques,
LVT/RVT

HOSPITAL NAME

Roundhill Animal
Hospital

REFERRING VET

Dr. Kelly

INVOICE

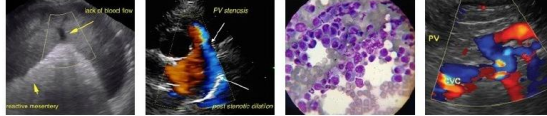
28196

DATE

1/9/23

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	5.3	4.0	NM	2.5			0.16
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	130	1.5	0.96	2.3	2.3	2.7	1.0
*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)

Adapted from June Boon, Veterinary Echocardiography, 1998
 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
 Hansson et al, Vet Rad and Ultrasound 2002
 Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995



PATIENT

Minimo Morrison

SPECIES

Canine

BREED

Papillon

SEX

Male Intact

AGE

13 years

WEIGHT

5.06lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Loetitia St-Jacques,
LVT/RVT

HOSPITAL NAME

Roundhill Animal
Hospital

REFERRING VET

Dr. Kelly

INVOICE

28196

DATE

1/9/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Findings appear similar to the prior study. Chronic degenerative valve disease persists with severe mitral and trivial tricuspid regurgitation. Unchanged yet significant left atrial enlargement indicates there may be elevated risk for spontaneous congestive heart failure in the future. Significant pulmonary hypertension with severe MPA dilation is similar to previous, without obvious progressive RH enlargement. No additional issues are identified.

Given these findings continuing both medications is recommended going forward. Occasional exertional syncope is to be expected with PAH, particularly at elevated altitudes. While this is not a specific contraindication for air travel, any stressful event should be avoided in an animal with severe disease and concurrent PAH as the patient will be at risk for decompensation without the ability to seek emergency assistance. Consider antianxiety medications to keep stress at a minimum should you elect to travel.

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

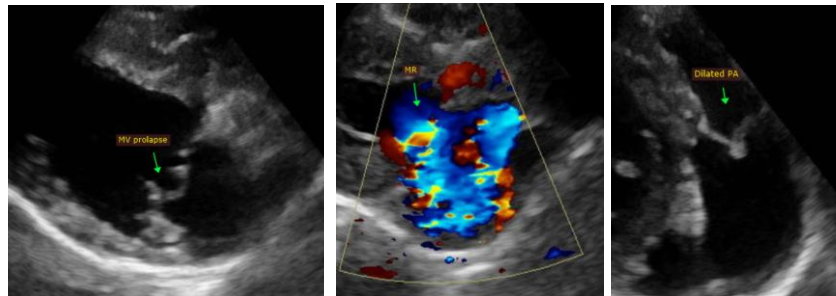
Elective anesthesia is not advised.

PLAN

Continue heart muscle support Pimobendan 0.25-0.3mg/kg PO BID. Continue Sildenafil 1-2mg/kg PO q12h. Baseline BP q 6mo.

Recommend monitor for progression with a recheck echocardiogram in 6 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. 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.

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