



PATIENT

Nena Aleman

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

10 years

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary
Center

REFERRING VET

Dr. Ortiz

INVOICE

30165

DATE

4/11/23

PRESENTING CLINICAL SIGNS

History: Patient came in for 2nd opinion, went to e - clinic on 3/11/23. Patient was dx with tracheal collapse, and CHF. No echocardiogram was performed. Grade V/VI systolic murmur. Stable slight crackles. right side.

-Current medications: Furosemide, dextromethorphan, vetmedin
-Abnormal PE/Chem/CBC/UA Results: CBC: HGB: 20.9 (13.1-20.5) CHEM: GLOB:4.8 (2.5-4.5).
-Radiographs; No evidence of pulmonary edema.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>>posterior) with prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with mild left atrial dilation. Normal MR velocity. Borderline LV with adequate myocardial function. The tricuspid valve appears mildly thickened with mild to moderate tricuspid regurgitation. Velocity consistent with mild to moderate pulmonary hypertension. Mild right ventricular enlargement. Mild right atrial enlargement. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic outflow velocities. Normal aortic outflow velocities. No pulmonic insufficiency. No aortic insufficiency. The MPA is mildly dilated. No pericardial or pleural effusion noted. No cardiac tumors observed.

CARDIAC CHART

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	5.8	3.5	NM	1.5	52	85	0.34
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	150	0.7	0.76	5.9	1.8	2.4	1.2
*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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral and mild to moderate tricuspid regurgitation. Mild left and right atrial enlargement indicates there is risk for progression in the future. Significant TR and mild moderate PAH are also seen, likely due to respiratory disease in this patient. Given the combination of MV disease and moderate pulmonary arterial hypertension



PATIENT

Nena Aleman

I would continue Pimobendan at this time as below. No obvious indication for Sildenafil at this time; however, highly recommend aggressively addressing the cough. If any syncope or exertional dyspnea are noted, institute Sildenafil at that time. Prognosis is guarded at this stage (B1/B2).

SPECIES

Canine

Given these findings, the cough is suspected to be respiratory in origin, particularly with concurrent crackles supporting lower airway disease. This breed is highly predisposed to both upper and lower airway disease as well and primary respiratory causes for coughing should also be considered. Baseline chest radiographs do not reportedly show CHF, which is considered unlikely in this case, and Lasix should be discontinued. Consider pulmonary antibiotics, hydrocodone, etc. for any acute worsening of the symptom. It is important to note that PAH is not the cause of a cough; rather it develops secondary to the chronic cough. Adequate cough control is the most important tool in preventing or slowing its progression.

BREED

Shih Tzu

SEX

Female Spayed

Anesthetic risk is considered moderately elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction) are recommended.

AGE

10 years

Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated. **Pre-oxygenate for 5-10 min prior to intubation and recover in O2 if possible.**

WEIGHT

13lbs

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.

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

PLAN

Screening BP is recommended. Continue heart muscle support Pimobendan, 0.25-0.3mg/kg PO BID. Discontinue Lasix as discussed. Aggressive cough suppression/treatment is recommended as discussed. If exertional dyspnea/collapse is noted and/or patient is refractory to therapy, consider institute Sildenafil 1-2mg/kg PO q8h. Consider course of Baytril or antibiotic, theophylline, etc.

IMAGING PERFORMED BY

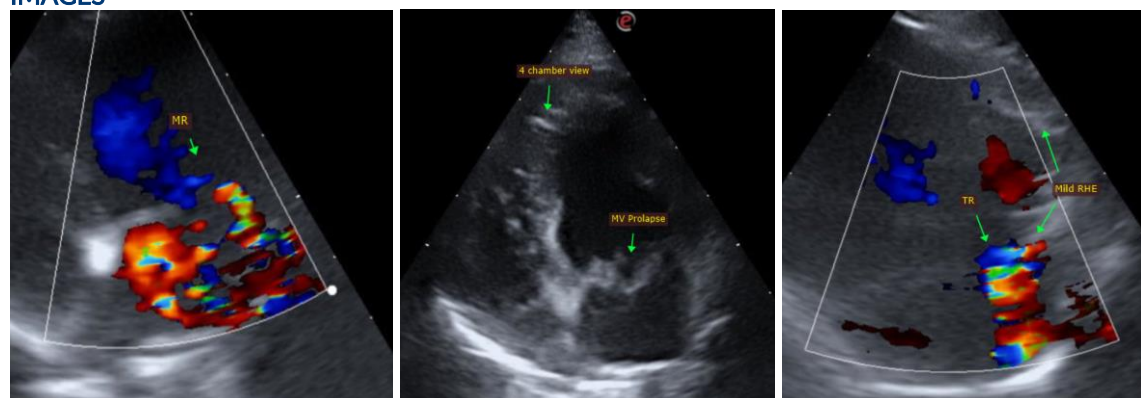
G. Ferrer, DVM

Recommend monitor for progression with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

HOSPITAL NAME

Paseos Veterinary
Center

IMAGES



REFERRING VET

Dr. Ortiz

INVOICE

30165

DATE

4/11/23



PATIENT

Nena Aleman

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.

SPECIES

Canine

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

Shih Tzu

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

SEX

Female Spayed

AGE

10 years

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary
Center

REFERRING VET

Dr. Ortiz

INVOICE

30165

DATE

4/11/23