



PATIENT

Fae Rananis

SPECIES

Canine

BREED

Chihuahua

SEX

Female Spayed

AGE

13 years

WEIGHT

12lbs

INTERPRETED BY

Maggie Machen Lamy,
 DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Loetitia St-Jacques,
 LVT/RVT

HOSPITAL NAME

Pine Creek Veterinary
 Hospital

REFERRING VET

Dr. Nolet

INVOICE

20946

DATE

9/8/21

PRESENTING CLINICAL SIGNS

History: Grade 3/6 heart murmur. Coughs in morning. Radiographs done after fainting episode and started dog on medications (8/31/2021) Lasix 12.5mg BID for 3 days then SID, Benazepril 25mg BID, Vetmedin 1.5mg AM and 1/2 in PM

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is thickened with mild prolapse into the left atrial lumen. There is moderate eccentric mitral regurgitation present. There is moderate left atrial enlargement. There is no 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 prominence. The tricuspid valve is mildly thickened with septal prolapse and moderate tricuspid regurgitation. The tricuspid regurgitant velocity is consistent with moderate pulmonary hypertension. The pulmonary artery and pulmonic valve are normal. No PI. No pericardial/pleural effusion or cardiac masses are seen.

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	6.3	4.2	NM	1.7	46	79	NM
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	NM	0.9	0.5	5.4	2.5	2.7	1.5
*Normal chamber parameters expressed as a mean value (SD)							
BODY WEIGHT DEPENDENT PARAMETERS							
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>							
	5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)			
	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 moderate tricuspid regurgitation. Moderate left atrial enlargement indicates there may be elevated risk for spontaneous congestive heart failure in the future. Moderate pulmonary hypertension is also identified, with mild right heart enlargement. Given the combination of findings and unusual presentation, recommend institute Pimobendan and Sildenafil at this time in this patient as below.



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Coughing/syncope in this patient may be cardiogenic in origin; however, primary respiratory disease must also be considered. Radiographs were taken; however, results are not provided. **If CHF was identified or suspected, then Lasix/ACE-I should be continued as below going forward.** Most patients with syncope due to pulmonary hypertension do not require diuretics however, in the absence of right-sided CHF. A radiologist review of the films may be useful if there is any discrepancy.

The cough (ie primary respiratory disease) is the suspected cause of development of pulmonary hypertension. It is important to note that PAH doesn't cause the cough; rather the inverse is true. Adequate cough suppression is of the up most importance to maintain stability going forward.

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.

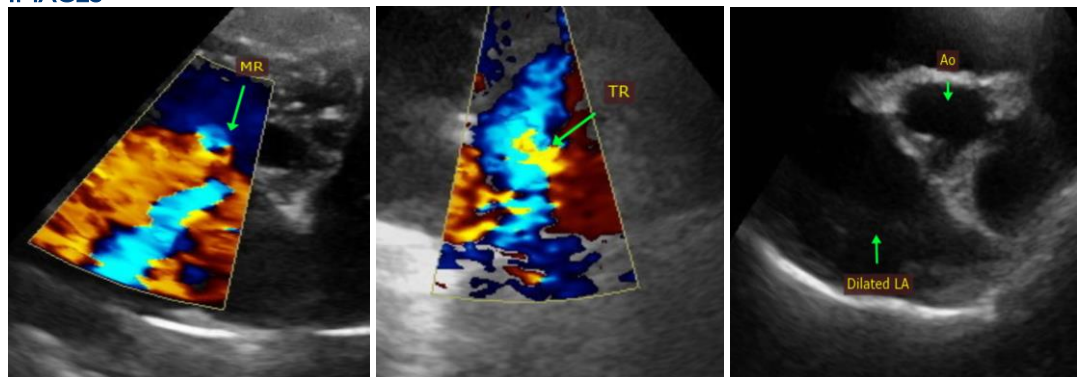
Elective anesthesia is not advised.

PLAN

Administer heart muscle support Pimobendan 0.25-0.3mg/kg PO BID. Institute Sildenafil 1-2mg/kg PO q12h. CXR review recommended, if CHF is suspected continue Lasix 1-2mg/kg PO q12h and Benazepril 0.5mg/kg PO q12. If CHF is not suspected, discontinue both medications and continue primary respiratory workups/treatment. Hydrocodone may be useful.

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

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