
PATIENT

Norman Biemann

PRESENTING CLINICAL SIGNS

History: Blind and deaf, easily stressed for any kind of restraint. Was given Torb 0.2mg/kg IV. Has had 5 or 6 episodes of jumping up to run to the door and then collapsing on his side (syncope like). New heart murmur noted. Color slightly blue when awake and stressed and not on oxygen. Had supplemental oxygen throughout scan.

SPECIES

Canine

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only. Cardiomegaly, equivocal for CHF.

BREED

Yorkie

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse nodular thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial enlargement. Mild LV dilation with hyperdynamic myocardial function and evidence of volume overload. The tricuspid valve appears thickened with mild tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Mild right heart dilation. The pulmonic and aortic valves appear normal in appearance and mobility. Normal pulmonic and aortic outflow velocities. No pulmonic insufficiency noted. Mild aortic insufficiency. No effusions or tumors.

SEX

Male Neutered

AGE

13 years

CARDIAC CHART
WEIGHT

7.7lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

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	NM	3.1	NM	2.5	43	80	0.2
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	75	1.0	0.8	3.5	2.5	3.6	2.0
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)

HOSPITAL NAME

 Grand River
 Veterinary Hospital

REFERRING VET

Dr. Robinson

INVOICE

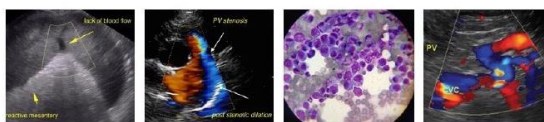
24472

DATE

5/30/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. Severe left atrial enlargement indicates there is an elevated risk for spontaneous congestive heart failure. Mild right heart enlargement is noted, and early PAH is



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suspected. A small aortic leak is noted, and a baseline BP is recommended. No additional comorbidities are seen such as systolic dysfunction are seen.

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Syncope in this patient is most likely cardiogenic in origin. Possible causes include poor forward blood flow leading to hypoxia, early CHF, significant pulmonary hypertension (not definitively seen), an arrhythmia and/or blood pressure swings. In light of severity of disease on echocardiogram and current respiratory signs, early CHF is the most likely cause and full lifelong cardiac supportive therapy is warranted as below with hospitalization for monitoring. Baseline chest radiographs are equivocal, and some component of pulmonary disease is suspected. Consider a Radiologist review of the films.

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Once in CHF, long term prognosis is guarded to poor, however most dogs are able to maintain a good QOL on medications for an average of 8-12 months. Should syncope persist despite medications (particularly with exertion), revisiting the situational component of the episodes, systemic possibilities, etc. is recommended.

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13 years

Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home. Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or worsening collapse episodes in the future.

WEIGHT

7.7lbs

PLAN

Consider Radiologist review of the films and a baseline BP as discussed. Administer furosemide 1-2mg/kg PO q12h. Administer Pimobendan 0.2-0.3mg/kg PO q12h. Institute Spironolactone 1-2mg/kg PO q12h.

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

Monitor renal values and BP in 10-14 days, then every 3-4 months while on diuretics. Do not recommend an ACE-I or Spironolactone at this time due to renal disease.

IMAGING PERFORMED BY

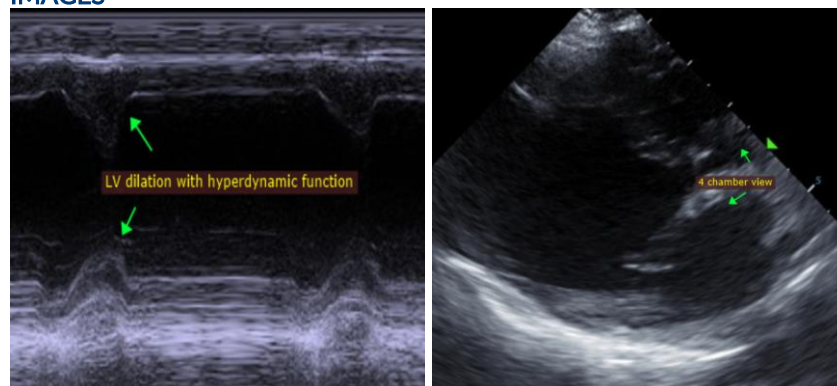
Crystal Hill, RVT

Recheck: Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of associated clinical signs occurs in the interim.

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IMAGES



REFERRING VET

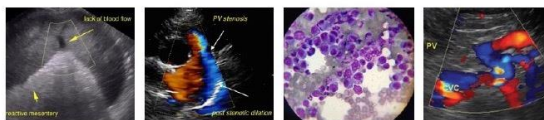
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Yorkie

Maggie Machen Lamy, DVM
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