
PATIENT

Ace Kovalcik

PRESENTING CLINICAL SIGNS

History: Recheck echo. Recent cough. New 6/6 heart murmur. Abdomen appears distended.
 -Current medications: Vetmedin 2.5mg BID.
 -Pertinent previous echo findings (7/2020 MML): Moderate MR, moderate LAE, mild LVE, trace TR: 2.5m/s. LA: 2.7, LV: 2.8.

SPECIES

Canine

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 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. The aortic valve appears thickened yet trileaflet with normal mobility. The main pulmonary artery is mildly dilated. Moderate right atrial and ventricular dilation. The tricuspid valve is thickened with mild to moderate tricuspid regurgitation. Velocity consistent with moderate pulmonary hypertension. No pulmonic or aortic insufficiency. Scant pericardial effusion seen. No obvious pleural effusion identified. Ascites seen on subcostal images. No cardiac masses are seen.

BREED

Shih Tzu/Bichon

SEX

Male Neutered

AGE

9 years

CARDIAC CHART
WEIGHT

19lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

 The Maples Animal
 Hospital

REFERRING VET

Dr. Kazienko

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	4.7	3.5	2.2	2.5	53	90	0.7
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	120	1.4	0.95	8.6	3.5	4.5	2.1
*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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and mild to moderate tricuspid regurgitation is identified. Compared to the prior study, there is evidence of significant progression, which is not surprising given the time frame. Severe left atrial and ventricular dilation indicates the risk for spontaneous left-sided congestive heart failure is elevated.

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Additionally, there is mild right heart enlargement with at least moderate pulmonary hypertension, which puts the patient at risk for right-sided congestion, and/or syncope.

SPECIES

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Given the degree of structural disease in addition to hepatic congestion, the diagnosis is likely biventricular CHF and life-long cardiac supportive medications are recommended as below. Sildenafil is not yet warranted; however, if the ascites is refractory this can be added. A baseline ECG, blood pressure and CXR are recommended. Hydrocodone can be utilized for any residual cough in the face of normal breathing rates.

BREED

Shih Tzu/Bichon

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a worsening cough, labored breathing, exercise intolerance or worsening collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for progression to CHF at home. Unfortunately, there is high risk for spontaneous CHF, worsening cough and/or malignant arrhythmias and sudden death in the future. The prognosis with this degree of disease is poor, with most dogs able to maintain a good QOL on medications for an average of 8-12 months.

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Elective anesthesia is not advised.

WEIGHT

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PLAN
Initiate spironolactone 1-2mg/kg PO q12h. Administer Lasix 1-2mg/kg PO q12h. Administer Pimobendan 0.3mg/kg PO q12h. Recommend baseline BP, ECG and radiographs as discussed. If the patient is or becomes unstable, immediate hospitalization is recommended.

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

Recheck renal values and BP in 1-2 weeks, then every 3-4 months on diuretic therapy. If BP is >130mmHg and patient is doing well at home, institute ACEI 0.5mg/kg PO q12h (if hypotensive do not utilize). Hydrocodone if needed. If ascites is refractory, institute Sildenafil 1-2mg/kg PO q12h.

IMAGING PERFORMED BY

Crystal Hill, RVT

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise.

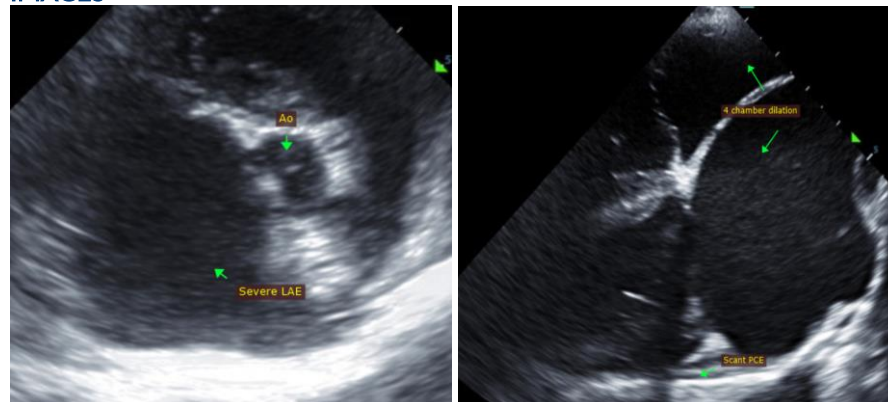
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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