

PATIENT

Roca Bluhm

SPECIES

Canine

BREED

Miniature Aussie

SEX

Male Neutered

AGE

14 years

WEIGHT

32.2lbs; 14.6kgs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Wavelength Vet
Services

HOSPITAL NAME

Brookwood Animal
Clinic

REFERRING VET

Dr. Loomis

INVOICE

21791

DATE

11/1/21

PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 5/6 heart murmur. Coughing, recent attack by deer resulting in necessary anesthesia to repair wounds.

-Current medications: Vetmedin 3.75mg BID, enalapril 5mg BID.

-Radiographs: Severe cardiomegaly, mild perihilar pulmonary edema.

-Pertinent previous echo findings (4/2019 MML): CVB B1.

ECHOCARDIOGRAM FINDINGS

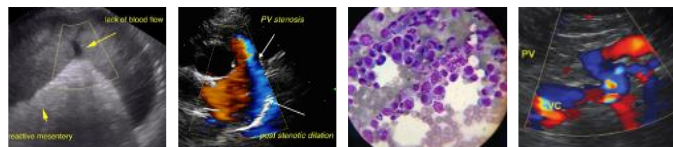
2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. There is severe eccentric mitral regurgitation present. The MR velocity is normal. There is severe left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. The main pulmonary artery is mildly dilated. Mild right atrial and right ventricular dilation. The tricuspid valve is thickened with mild tricuspid regurgitation. Elevated TR velocity consistent with mild to moderate pulmonary hypertension. Trace pulmonic insufficiency; no aortic insufficiency. Scant pericardial effusion. No 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	5.0	3.5	NM	2.2	40	70	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	1.0	0.6	14.6	4.3	4.1	2.5
*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 persists with evidence of significant progression. Severe disease has developed with severe mitral and mild tricuspid regurgitation. Severe left heart enlargement indicates the risk for spontaneous left-sided congestive heart failure is elevated. Additionally, there is mild to moderate pulmonary hypertension present, which puts the patient at risk for right-sided congestion, and/or syncope. No additional issues are identified.



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Given the symptoms, finding of PCE and CXR results, the patient is in CHF and full lifelong cardiac supportive medications are recommended as below. Whether this is organic in nature or developed secondary to a traumatic event/anesthesia is irrelevant as the degree of disease is severe. Depending on clinical response to the medications, cough suppression may also be useful. Monitoring of sleeping breathing rates in the future will be paramount to determine the origin of any future cough. Sildenafil is not clearly indicated at this time; however, if any exertional syncope or dyspnea are noted this should be added in the future.

The average survival of canine patients with active CHF is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. Monitoring of renal values is recommended lifelong. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

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 collapse episodes.

Elective anesthesia is not advised.

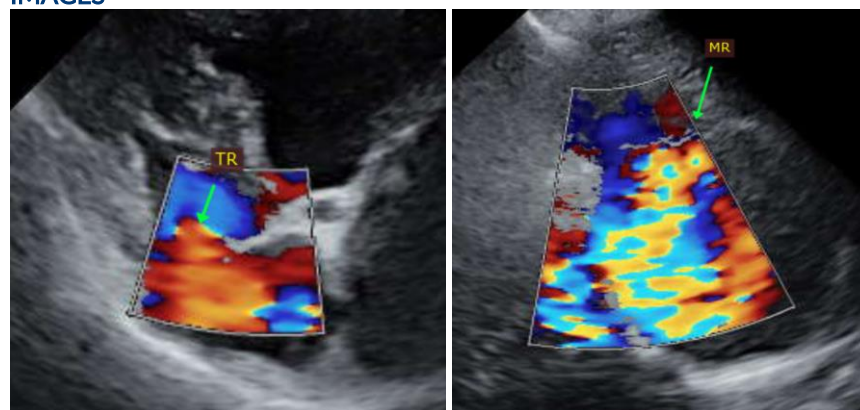
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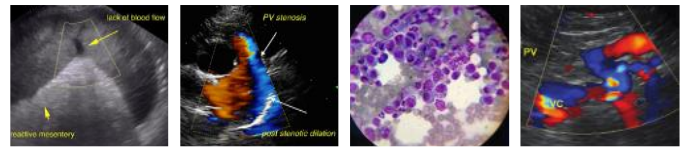
Screening BP is recommended. Administer Pimobendan 0.3mg/kg PO BID. Administer Benazepril or Enalapril 0.5mg/kg PO q12h (assuming BP is >130mmHg). Administer Lasix 1-2mg/kg PO q12h. Administer spironolactone 1-2mg/kg PO q12h. Consider hydrocodone with homatropine (0.2-0.4mg/kg PO up to q4-6 hours PRN) if cough persists despite normal SRRs.

A renal panel is recommended in 10-14 days, then every 3-4 months on diuretics to ensure tolerance of medications. If exertional syncope/dyspnea develop, institute Sildenafil 1-2mg/kg PO q12h.

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

IMAGES





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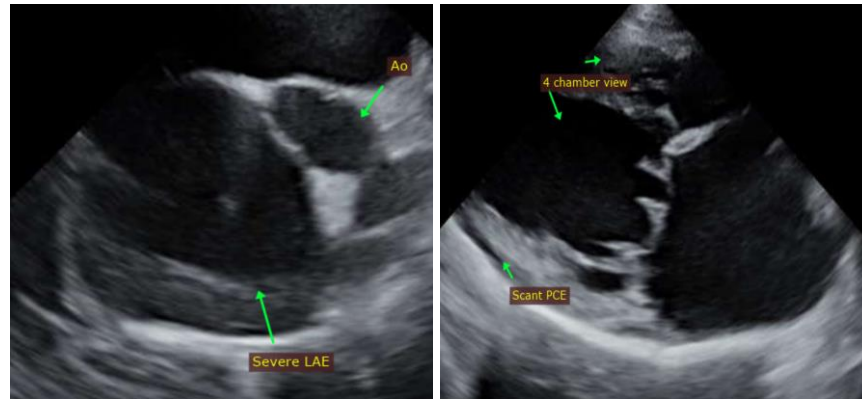
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@sonopath.com