



PATIENT

Kona Miller

SPECIES

Canine

BREED

Dachshund

SEX

Male Neutered

AGE

4.29.12

WEIGHT

21.8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

HOSPITAL NAME

Rock Spring Veterinary
Clinic

REFERRING VET

Dr. Gibson

INVOICE

32152

DATE

8.4.23

PRESENTING CLINICAL SIGNS

History: Recheck echo. Presented for evaluation of increased frequency of coughing with owners' concern for a respiratory cause. Kona was treated with a course antibiotics and hydrocodone. His furosemide dose was also increased. Owner reports some improvement in his cough.

-Pertinent abnormal PE/Chem/CBC/UA Results: This bloodwork is from 6/2023 when had gastrointestinal symptoms. HCT 64.8%, WBC 16.38, Neutrophils 13.13, Eosinophils 0.02, Potassium 3.4. Chloride 101, ALP 259

-Current medications: Furosemide 20 mg bid, Pimobendan 2 mg bid, Spironolactone 10 mg bid

-Sedation used: Not required to complete full diagnostic ultrasound.

-Pertinent previous ultrasound results (11/2022 MML): Severe MR, moderate LAE, mild LVE, mild PAE: 2.9m/s. LA: 2.4, LV: 3.6

-STAT: Approved/Requested.

-Imaging performed by: Stephanie Warga RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with mild prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Normal MR velocity. Mild LV dilation with adequate myocardial function. The tricuspid valve appears thickened with mild tricuspid regurgitation. Velocity consistent with early PAH. Normal right atrial and ventricular diameter. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or pulmonic insufficiency. 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	6.2	2.8	NM	2.4	49	81	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	100	1.6	0.8	9.9	3.0	3.7	1.9
*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)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, the only significant difference is the left atrium has progressively dilated. The disease is now certainly in the severe category with severe MR persisting. The tricuspid leak remains mild with mild unchanged pulmonary hypertension. No additional issues are identified.

Given these findings, reasonable to continue cardiac support as recommended below. It remains unclear if the current cough is cardiogenic in origin, as no labored breathing is reported. Regardless, continued Lasix therapy is reasonable with addition of an ACE-I pending BP assessment. If the symptom persists, reassessing CXR is strongly recommended. Once CHF is diagnosed, the prognosis is poor with an average survival time of <1 year. Patient will always be at risk for recurrent CHF, malignant arrhythmias and/or sudden death 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, fluid or steroid therapy is not advised.

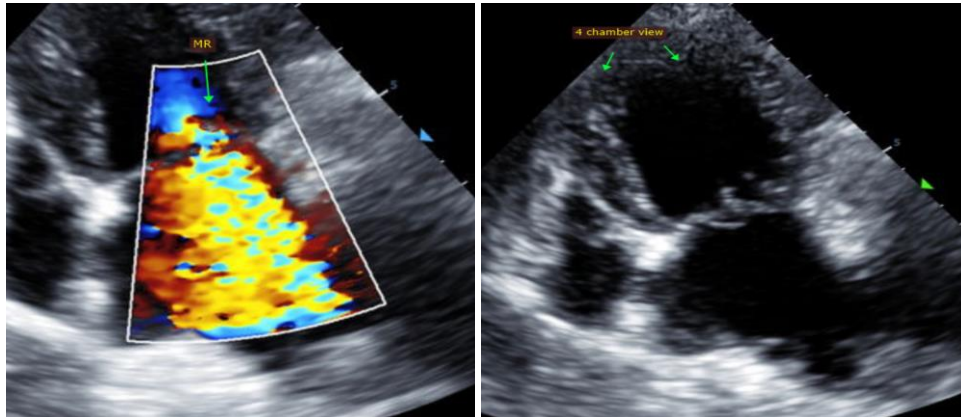
PLAN

Continue Pimobendan, Lasix and Spironolactone as prescribed. 1-2mg/kg PO q12h. A baseline BP is recommended with institution of an ACEI (0.5mg/kg PO q12h), if normotensive.

Monitor renal values/BP every 3-4 months lifelong.

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.

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