


PATIENT

Cooper Kit

PRESENTING CLINICAL SIGNS

 History: Grain free diet. Grade 1/6 heart murmur. Assess prior to dental.
 Radiographs: Suggestive of cardiomegaly. Decreased cranial cardiac waist

SPECIES

Canine

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve appears mildly thickened, with no obvious prolapse into the left atrial lumen. Mild central MR. Mild left atrial dilation. The LV is dilated in both systole and diastole (LVIDdN: 1.99, LVIDsN: 1.52), with increased sphericity. Moderate decline in myocardial function. Normal LV wall thickness. The tricuspid valve appears normal in form and function. Trace TR. Mild right atrial and ventricular enlargement. No overt evidence of pulmonary arterial hypertension or right heart decompensation. The aortic valve is normal in morphology and mobility. No subvalvular ridge present; normal LVOT velocity with laminar flow. No aortic insufficiency. Normal pulmonic valve with no pulmonic insufficiency seen. Normal RVOT velocity. No pericardial or pleural effusion noted. No obvious cardiac tumors.

BREED

Cocker Spaniel

SEX

Male Intact

AGE

5 years

CARDIAC CHART
WEIGHT

43lbs

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	2.2	NM	1.5	19	36	1.5
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	132	1.1	0.8	19.5	3.3	4.8	3.9
*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)
<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)

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

Fairview Animal Clinic

REFERRING VET

Dr. Combe

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Significant left heart enlargement with a decline in systolic function is identified. Mild MR and trace TR are also noted, likely suggesting concurrent chronic degenerative valve disease. The LA is mildly dilated, indicating low risk for complication at this time. No additional issues are identified.

INVOICE

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Dilation and dysfunction can be primary in nature (early primary DCM) or can develop secondary to taurine deficiency, myocarditis, hypothyroidism, tachycardia-induced cardiomyopathy, or infiltrative disease such as lymphoma. Given the diet history in this signalment, there is great concern for correlation with a non-traditional diet being fed in light of recent reports. Highly recommend immediate change to a more traditional option (i.e., Purina, Science Diet or Hills), instituting Taurine is recommended as below. Consider screening for additional causes such as submitting a thyroid panel. Additionally, Pimobendan is recommended even with only mild LA enlargement due to significance of LV dysfunction.

Prognosis is guarded at this stage, as rate of progression will dictate true clinical implication of today's findings long term. There may be risk for development of congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death in the future.

Once on the medication for 3-5 days, **anesthetic risk is considered moderately elevated**. A screening BP is recommended prior to induction. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso/sevo gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs, alpha 2 agonists, telazol unless clinically necessary.

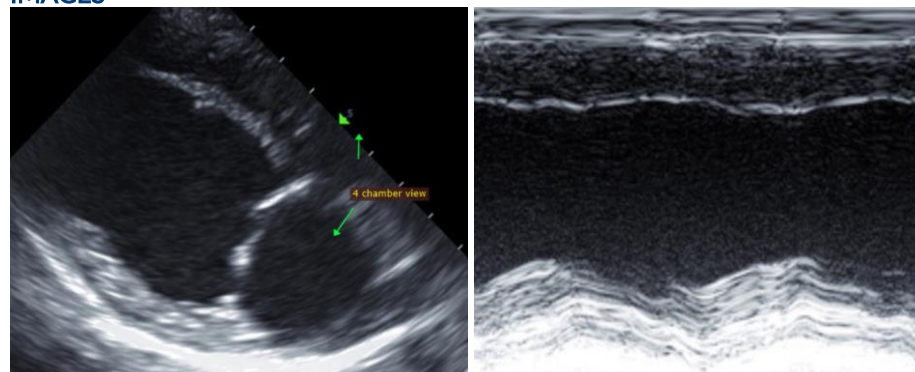
Monitor for development of a progressive murmur, cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

Diet change recommended if possible. Institute Pimobendan (0.25-0.3mg/kg PO q12h). Supplement taurine, 1000-2000mg PO q12h. Consider a thyroid level if not recently assessed.

A recheck echocardiogram is recommended in 6 months, sooner if a murmur develops or any signs of cardiac disease are noted.

IMAGES





PATIENT

Cooper Kit

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

Cocker Spaniel

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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