



PATIENT

Somang Kang

SPECIES

Canine

BREED

Maltese

SEX

Female Spayed

AGE

14 years

WEIGHT

5.2lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Paul Kim, DVM

HOSPITAL NAME

Ridgefield Park
Animal Hospital

REFERRING VET

Dr. Kim

INVOICE

20600

DATE

8/18/21

PRESENTING CLINICAL SIGNS

History: This patient has a history of cardiac issues. The patient has been coughing with harsh breathing for about 3 weeks. The owner also mentioned a decrease in appetite. The doctor noted a grade 4/6 heart murmur. Upon review of x-rays done today, the doctor noted cardiomegaly with a loss of caudal weist. The doctor also noted the trachea is normal, narrow intervertebral disc and sclerosis on T13/L1.

ECHOCARDIOGRAM FINDINGS * Limited images included.

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. The left ventricular is mildly dilated and increased sphericity indicative of volume overload. 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. Normal pulmonary outflow velocity with laminar profile. Mild right atrial and right ventricular dilation. The tricuspid valve is mildly thickened with mild tricuspid regurgitation. The TR velocity is variable; however, moderate pulmonary hypertension is suspected. Scant pericardial effusion. No obvious pleural effusion. No 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	6.1	4.0	1.5	2.7	56	90	0.19
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	1.5	1.0	2.4	2.6	2.5	1.1
*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)

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



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. Biatrial and ventricular enlargement in addition to MR/TR and pulmonary hypertension indicates the risk for spontaneous congestive heart failure is high. Scant pericardial effusion is concerning for early congestion, and full cardiac support is recommended including sildenafil therapy. If the patient appears unstable, highly recommend overnight hospitalization for supportive care at a 24-hour facility.

Unfortunately, with this degree of heart disease and congestion, the prognosis is guarded to poor with an average survival time of 6-12mo at this point. Most dogs are able to maintain a good quality of life for some time however with medications. Going forward, patient will remain at high risk for recurrent CHF (left or right sided), collapse episodes and/or development of malignant arrhythmias in the future.

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit once stabilized. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for improvement/recurrent CHF at home.

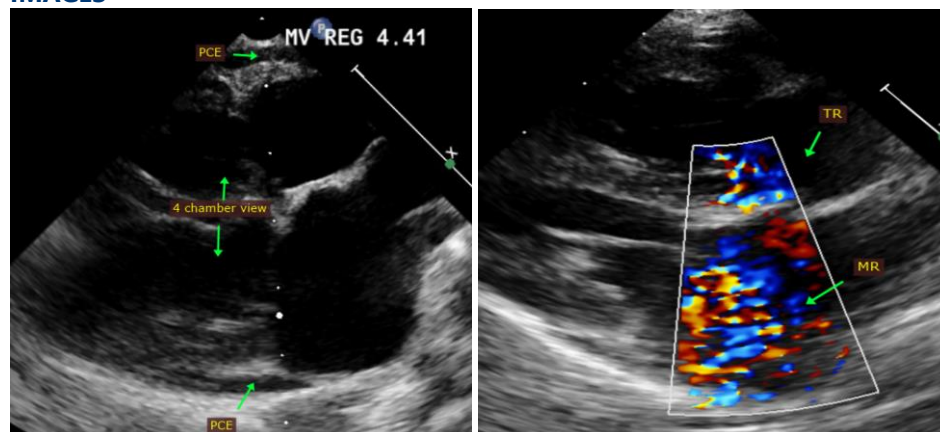
PLAN

Institute furosemide 1-2mg/kg PO q12h. Institute sildenafil 1-2mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h. Institute Pimobendan 0.25-0.3mg/kg PO q12h.

Recheck a kidney panel and BP in 10-14 days, then every 3-4 months. If BP >130mmHg, increase ACE to 0.5mg/kg PO q12h.

A recheck echocardiogram is recommended in 4-6 months to screen for progression, sooner if clinical signs arise.

IMAGES





PATIENT

Somang Kang

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

Maltese

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com

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