


PATIENT

Misha Vasak

PRESENTING CLINICAL SIGNS

 History: Recheck echo. Overweight. HR: 130, RR: 30.
 -Pertinent previous echo findings (9/2020 MML): Mild MR, no LA/LVE.

SPECIES

Canine

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

 A single lead ECG is available; 25mm/s, 20mm/mV. The average heart rate is 140bpm (range 94-214bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are inverted suggesting atypical device orientation. No ectopic beats, pauses or other dysrhythmias observed.
 ECG diagnosis: Normal sinus rhythm with significant respiratory variation.

BREED

Pomeranian

SEX

Male Neutered

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate progressive left atrial dilation. Normal MR velocity. Mild LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened with mild tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Normal right atrial and ventricular diameter. The pulmonic valve is normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. Aortic and pulmonic valve appears normal with no obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

AGE

5 years

WEIGHT

15.7lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

CARDIAC CHART
IMAGING PERFORMED BY

Kelly Reschny, RVT

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	6.8	3.1	NM	1.8	57	92	0.3
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	192	2.1	1.7	7.11	2.0	3.0	1.3
*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

INVOICE

20394

DATE

8/5/21

HOSPITAL NAME

 Snelgrove Veterinary
 Service

REFERRING VET

Dr. Perit



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral and mild tricuspid regurgitation is identified. Compared to the previous study, there is progression in left heart dimensions and MR, as well as development of mild pulmonary hypertension and a small tricuspid leak. Moderate left atrial enlargement indicates the risk for spontaneous congestive heart failure may progress in the future. It is reasonable to initiate cardiac supportive Pimobendan at this time as below, given these progressive issues. There is no evidence of systolic dysfunction or other comorbidities at this time. Even with mild progression, prognosis remains guarded (stage B2). The ECG is unremarkable with a respiratory sinus arrhythmia.

Once on the medication for 3-5 days, anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso/sevo gas) are recommended. Pre-oxygenate for 5-10 min prior to induction. 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 such as atropine unless clinically indicated.

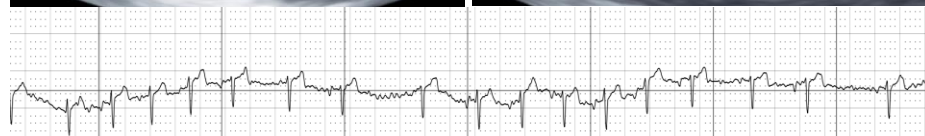
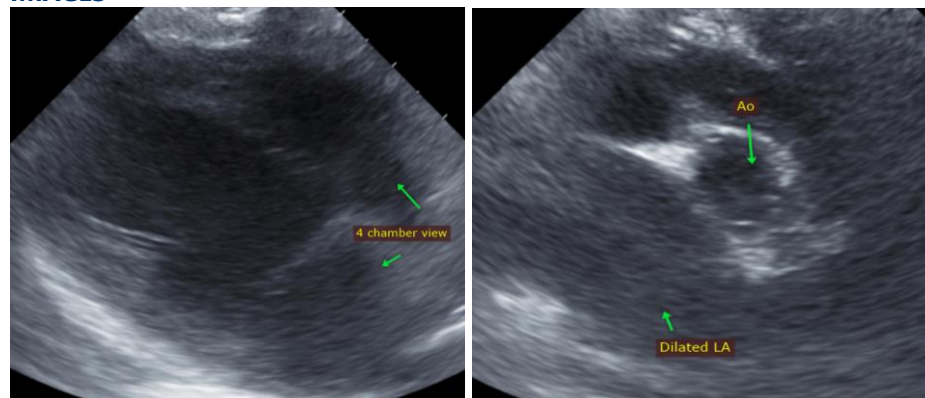
Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of an acutely progressive cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

Screening BP. Institute Pimobendan 0.25-0.3mg/kg PO q12h.

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

IMAGES





PATIENT

Misha Vasak

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

Pomeranian

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

SEX

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