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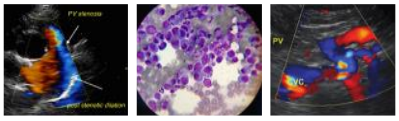

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PATIENT
Zoe Handlers

SPECIES
Canine

BREED
Poodle

SEX
Female Spayed

AGE
5.10.11

WEIGHT
11.1lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME
Everhart Veterianry Hospital

REFERRING VET
Dr. Goodman

INVOICE
24536

DATE
6.2.22

PRESENTING CLINICAL SIGNS

History: Recheck echo. Doing well. In the last week increased cough, suspect primary respiratory issue – started Hydrocodone.
-Current medications: Hydrocodone 5mg ¼ SID-BID PRN, cough tablets ½ TID, Lasix 12.5mg ½ BID, Pimobendan 2.5mg ½ BID, Benazepril 5mg ½ SID. Galliprant 20mg ½ BID.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results (1/2022 AW): LA/AO: 1.93, minimal LVE, severe MR, no RHE, trivial TR.
-STAT: Not requested
-Imaging performed by: Andi Parkinson, BS, RDMS.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Severe diffuse thickening of mitral valve leaflets (anterior and posterior) with mild prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened, with trace tricuspid regurgitation. No right atrial/ventricular dilation. The pulmonic valve is normal in morphology and mobility. Aortic valve is normal with no aortic insufficiency. Normal pulmonic and aortic outflow velocities. No 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	5.0	NM	NM	2.0	47	80	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	120	0.76	0.7	5.0	2.5	3.5	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

Chronic degenerative valve disease persists causing severe mitral and trace tricuspid regurgitation persists. While severe, the LA/LV dimensions are only mildly increased to what is available from the prior study indicating relative stability. Severe left atrial enlargement indicates the risk for spontaneous congestive heart failure remains elevated lifelong. No additional comorbidities are identified.

Given the severity of disease and history, continued cardiac support is warranted lifelong. No additional medications are clearly indicated; however, spironolactone could be instituted for potential long-term benefit (assuming renal values are reasonable). Additionally, hydrocodone is certainly indicated to continue to manage what is presumed to be a mechanical cough. Long term prognosis is poor, with most dogs able to be managed on medications with a good QOL for an average of 8-12 months after the diagnosis of CHF. Patient will always be at risk for recurrent CHF, LA tear, development of malignant arrhythmias/sudden death going forward.

Elective anesthesia is not advised.

Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is the best way to assess for recurrent CHF in the future.

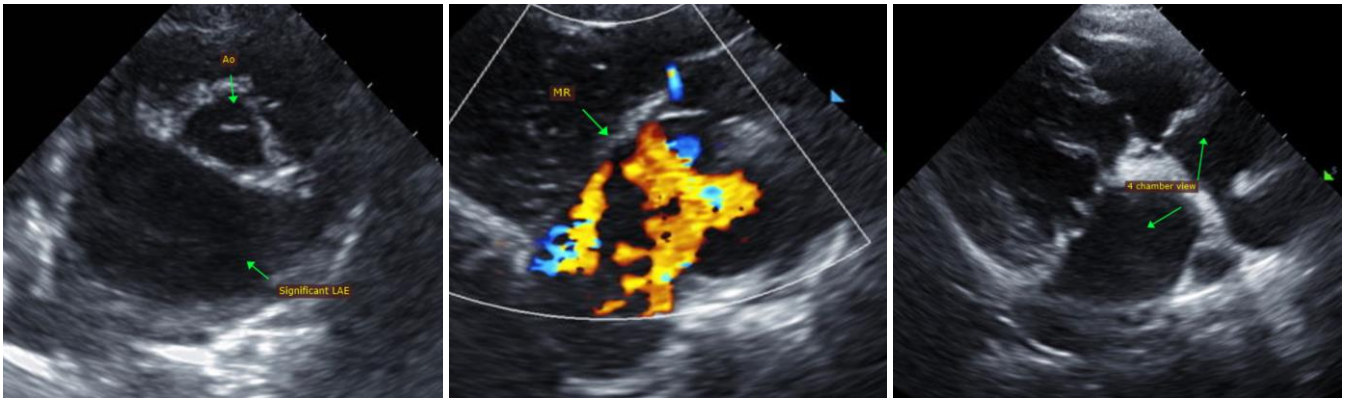
PLAN

Continue medications as prescribed. Consider addition of spironolactone 1-2mg/kg PO q12h. Continue hydrocodone (0.2-0.4mg/kg up to q4-6h PRN).

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

Recommend conservative monitoring 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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