

PATIENT

Cinnamon Straub

SPECIES

Canine

BREED

Poodle Mix

SEX

Female Spayed

AGE

~15 years

WEIGHT

14.6lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Westwood Regional
Veterinary Hospital

REFERRING VET

Dr. Giammanco

INVOICE

20415

DATE

8/9/21

PRESENTING CLINICAL SIGNS

History: Recheck echo.

-Radiographs: Show pulmonary edema and enlarged cardiac silhouette. Ascites.

-Current medications: Spironolactone 25mg 1/4-tab bid, Lasix 12.5mg 3/4 t bid, Enalapril 2.5mg 1 & 1/4 t bid, Vetmedin 1.25mg 1 & 1/4 bid.

-Pertinent previous echo findings (3/2021 MML): Severe MR, marked LA/LVE, mild TR, mild PAH.

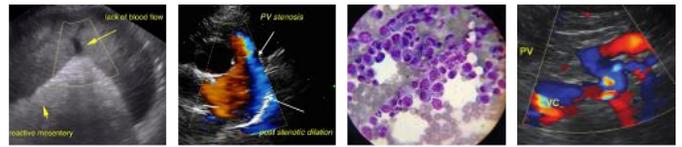
ECHOCARDIOGRAM FINDINGS

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. Marked eccentric mitral regurgitation with marked left atrial dilation. Marked LV dilation with hyperdynamic myocardial function and increased LVIDs. The tricuspid valve appears mildly thickened, with severe tricuspid regurgitation. Severe pulmonary hypertension persists. Moderate right atrial/ventricular enlargement. The pulmonic valve is normal in morphology and mobility. Aortic valve is normal with no aortic insufficiency. Normal pulmonic and aortic outflow velocities. Moderate pulmonic insufficiency. Scant pericardial effusion. No obvious 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	4.9	NM	3.0	43	74	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	130	0.8	0.7	6.6	4.0	4.7	2.7
*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)

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 persists with evidence of significant progression. Compared to the prior study, the left heart continues to increase in size. Additionally, and most clinically important is there is evidence of right-sided congestive heart failure secondary to worsening pulmonary hypertension. The TR velocity suggest severely elevated pulmonary pressures which is likely the origin of this development. No obvious additional issues are identified.

Given these findings, changes to the medications are recommended as below. If the patient appears unstable, hospitalization should be considered for oxygen support and injectable diuretic therapy. This is certainly considered a case of refractory disease with biventricular failure developing. Prognosis is poor long-term, and our goal is to improve quality of life for a matter of weeks to months. If the patients quality of life suffers in the further, euthanasia should be elected. Patient will always be at risk for recurrent right or left-sided CHF, LA tear, development of malignant arrhythmias/sudden death going forward.

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.

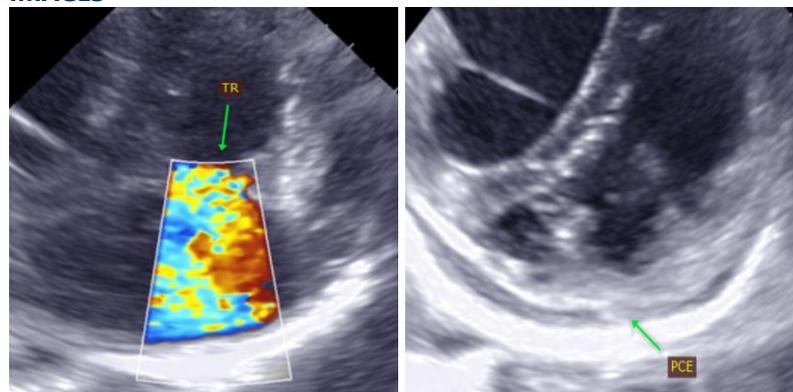
PLAN

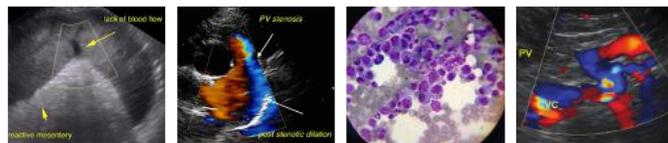
Consider hospitalization if indicated. Baseline BP is recommended with discontinuation of Enalapril if <130mmHg. Increase Spironolactone to 12.5mg PO q12h. Increase Lasix to 12.5mg PO q12h. Increase Pimobendan to 2.5mg PO q12h. Institute Sildenafil 1-2mg/kg PO q8h.

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





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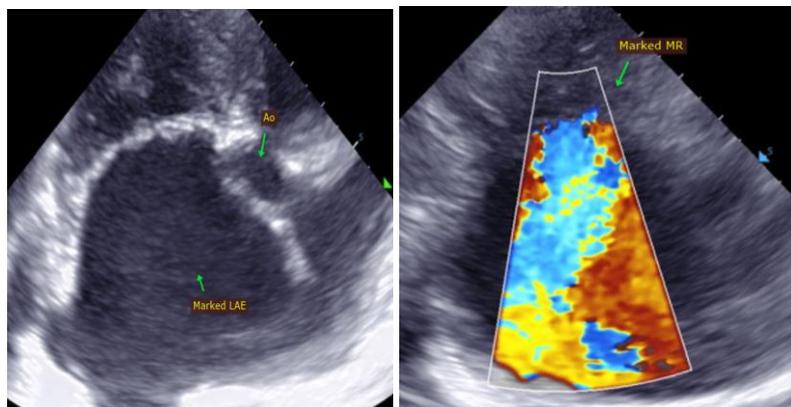
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Maggie Machen Lamy, DVM
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