



PATIENT

Roberto Morales

SPECIES

Canine

BREED

Mix

SEX

Male Neutered

AGE

14 years

WEIGHT

20lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Pulse: Pet Ultrasound
Services

REFERRING VET

Dr. Nunez

INVOICE

46434

DATE

1/14/26

PRESENTING CLINICAL SIGNS

History: Grade 5/6 heart murmur. possible syncope/collapse episode (maybe seizure) about 4 days ago. On Enalapril 2.5mg BID and Furosemide.

ECHOCARDIOGRAM FINDINGS

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. There is severe left atrial enlargement. There is moderate left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. Normal aortic outflow velocity. The main pulmonary artery is normal. No right atrial or right ventricular dilation. The tricuspid valve appears normal with trace tricuspid regurgitation. Normal velocity. No pulmonic insufficiency; no aortic insufficiency. Scant pericardial effusion. No 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	5.0	1.8	NM	2.2	57	87	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	NM	0.75	0.6	9.1	3.0	4.3	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)
<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)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and trace tricuspid regurgitation. Severe LA and LV dilation suggests high risk for complication. No additional issues are identified, such as pulmonary hypertension.

The finding of pericardial effusion likely explains the recent collapse episode. The two most likely rule outs include a LA tear or right-sided CHF. Given that the pulmonary pressures/right heart appear normal, the former is considered the likely cause. A left atrial tear indicates a highly unstable patient and hospitalization is recommended. A baseline BP and ECG are recommended.



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Recommend treating this patient with diuretic therapy and supportive care and monitor the amount of effusion in hopes of stabilizing the situation. If the amount of effusion increases or the patient further decompensates pericardial tap, or humane euthanasia may become indicated.

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Strict activity restriction is advised until the fluid is able to reabsorb, as there is a high risk for decompensation if the clot/healing is disrupted. If any syncope/decompensation occurs acutely in the future, then the amount should be reassessed.

BREED

Mix

Unfortunately, even if we are able to stabilize the situation, the long-term prognosis is poor to grave given the severity of disease and complexity of issues, with risk for recurrent spontaneous decompensation, fulminant heart failure, development of arrhythmias and/or sudden death in the future.

SEX

Male Neutered

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

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Consider hospitalization as indicated. Institute Pimobendan 0.3mg/kg PO q12. Institute Spironolactone 1-2mg/kg PO q12h. Continue Lasix 1-2mg/kg PO q12h. ACE-I should be discontinued until a BP is assessed.

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A renal panel, blood pressure and (if possible) reassessment of pericardial effusion is recommended in 1-2 weeks following discharge, then every 3-4 months going forward. Once stable, BP is >130mmHg, and doing well at home, reinstitute ACE-I 0.5mg/kg PO q12h.

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

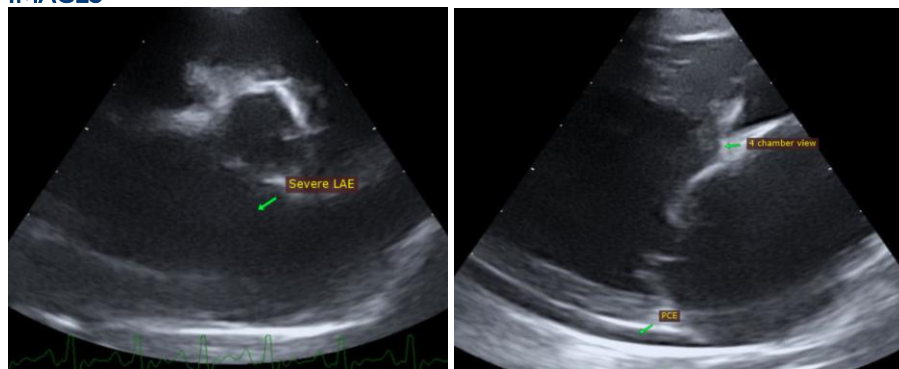
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IMAGES

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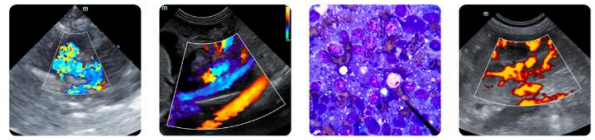
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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Maggie Machen Lamy, DVM

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