



PATIENT

Charley Diehl

SPECIES

Canine

BREED

Yorkie Mix

SEX

Male Neutered

AGE

10 years

WEIGHT

16.8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

S. Barthelemy, DVM

HOSPITAL NAME

Alpine 24 Hour Pet
Hospital

REFERRING VET

Dr. Karagic

INVOICE

30513

DATE

5/1/23

PRESENTING CLINICAL SIGNS

History: Presented 1 month ago for cough. Chest radiographs showed cardiomegaly but no edema. Started on Pimobendan. Returned recently for worsened cough and repeat chest radiographs showed pulmonary edema. Started on furosemide.

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 left atrial dilation. Normal MR velocity. Mild LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened with no TR. Normal right atrial and ventricular diameter and morphology. The pulmonic and aortic valves are normal in morphology and mobility. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	5.9	NA	NM	1.6	58	89	0.2
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	1.3	1.1	7.6	2.3	3.4	1.5
*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 moderate mitral regurgitation is identified. Moderate left atrial enlargement indicates the risk for spontaneous congestive heart failure may be elevated going forward. No additional issues such as systolic dysfunction are noted. No additional issues such as pulmonary hypertension are identified.

While it is uncommon for moderate valve disease to lead to CHF, if the prior radiographs showed pulmonary edema and the patient responded to diuretic therapy then this would support the diagnosis and medications should certainly be continued as suggested below. If there is any question on the diagnosis, a Radiologist review of the films is highly recommended as this is unexpected with this degree of disease. Assuming CHF is confirmed, the average survival time of



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canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period.

SPECIES

Canine

Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future. Serial monitoring of SRRs is recommended as the best way to screen for progression to CHF at home.

BREED

Yorkie Mix

Elected anesthesia is not advised once congestive heart failure is identified.

SEX

Male Neutered

PLAN

Radiologist review of the films is recommended if not performed. If CHF is suspected, administer Lasix to 1-2mg/kg PO q12h. Screening BP, if >130mmHg, administer Enalapril 0.5mg/kg PO q12h. Regardless of results/clinical signs, continue Pimobendan 0.3mg/kg PO q12h. Consider Hydrocodone if needed for quality of life.

AGE

10 years

Monitor renal panel values/BP every 3-4 months lifelong.

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

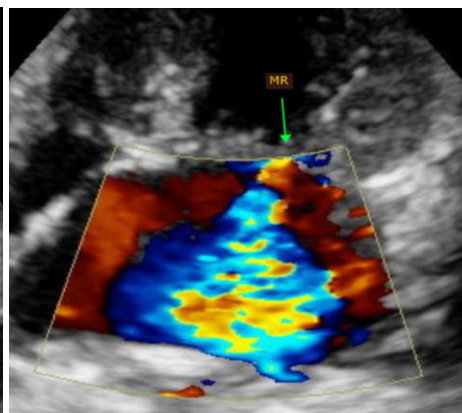
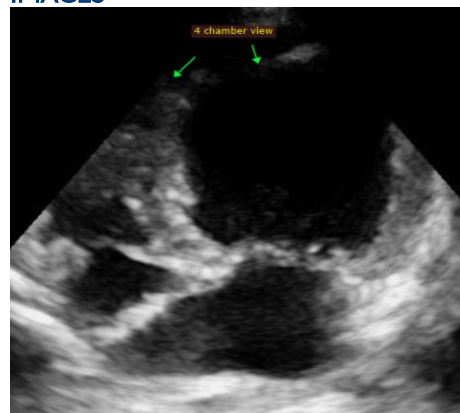
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

REFERRING VET

Dr. Karagic

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.

INVOICE

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