



PATIENT

Flecha Rodriguez

SPECIES

Canine

BREED

Mix

SEX

Male Neutered

AGE

14 years

WEIGHT

52lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary
Center

REFERRING VET

Dr. Davila

INVOICE

25239

DATE

7/11/22

PRESENTING CLINICAL SIGNS

History: Presented for a cough and decreased appetite. Difficulty breathing. Ascites.

-Abnormal lab results: BC: RBC 5.34 M/L , HCT 33.3% , HGB 11.7 g/dL and RET-HE 19.7 CHEM: SDMA 17, ALT 142 U/L, Creatinine (0.9).

-Radiograph report: Severe cardiomegaly. Dilated pulmonary veins and pulmonary edema.

-ECG report: Lone atrial fibrillation is suspected; however, details are not included.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe left atrial dilation. Normal MR velocity. Mild LV dilation with hyperdynamic myocardial function. The tricuspid valve appears mildly thickened with moderate tricuspid regurgitation. Moderate to severe right heart enlargement. No obvious RV hypertrophy. The pulmonic and aortic valves are normal in morphology and mobility. Normal aortic outflow velocities with laminar flow. No obvious aortic and trace pulmonic insufficiency. Scant pericardial effusion noted. No pleural effusion seen. 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	5.1		NM	2.5	47	78	0..
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	48	1.3	1.3	23.6	4.4	4.8	2.5
*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)
				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 causing severe mitral and moderate tricuspid regurgitation. Severe CVD has progressed to 4 chamber dilation. Mild pulmonary hypertension is suspected with moderate right heart enlargement. No additional concurrent structural issues are identified.

It is worth noting that the patient is profoundly bradycardic. If this has developed in the absence of sedation, this is highly concerning, and a repeat ECG is recommended. The finding of atrial



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fibrillation with a bradycardia is highly unusual and no further comment can be made. Follow up should be based upon the ECG report and further evaluation.

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Given the severity of structural disease seen here, ascites is likely due to right-sided congestive heart failure. Right-sided CHF can develop secondary to primary right heart disease, PAH, or secondary to a rapid arrhythmia. Regardless, aggressive therapy is recommended as below.

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Unfortunately, dogs with CHF and arrhythmias are at high risk for complications such as recurrent congestive heart failure, malignant arrhythmias and sudden death. Medications and close monitoring will help give the best prognosis possible, however the average survival time with this condition is <6 months.

SEX

Male Neutered

Goals of therapy include correcting water retention, improving myocardial contractility, and afterload reduction. Medical management is recommended as below with a guarded to poor prognosis. **If the patient has any further decline, fainting or respiratory distress, emergency hospitalization is recommended.**

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Please monitor at home for cough, lethargy, inappetance, collapse/fainting episodes or increase in respiratory rate or effort. Monitoring of sleeping breathing rates is recommended to screen for recurrent CHF at home. Moderate activity restriction is advised. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

WEIGHT

52lbs

PLAN

Consider abdominocentesis if needed for comfort or appetite. Institute Spironolactone 1-2mg/kg PO q12 hours. Administer Furosemide 1-2mg/kg PO q12 hours. Administer Pimobendan 0.3mg/kg PO q12 hours. A screening BP is recommended. If BP >130mmHg, recommend ACE-I 0.5mg/kg PO q12h. If <130mmHg do not utilize until patient is normotensive and eating well at home. **Repeat ECG is recommended.**

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(Cardiology)

Recheck renal panel and BP in 10-14 days to ensure tolerance of medications.

IMAGING PERFORMED BY

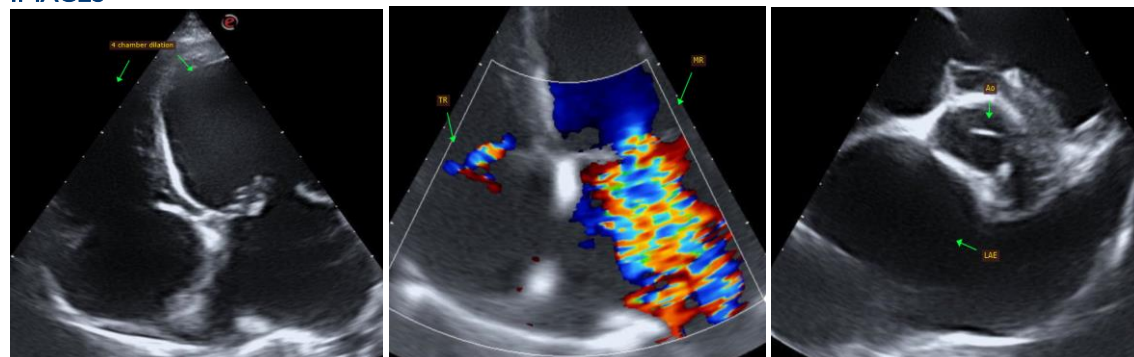
G. Ferrer, DVM

Monitor renal values every 3-4 months lifelong. A recheck echocardiogram is recommended in 6 months to screen for progression.

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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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