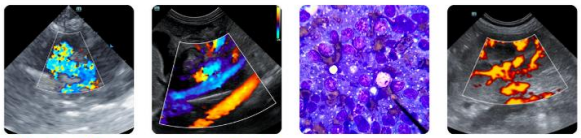


DATE

3.3.26

PATIENT

Ozzie Reyes

SPECIES

Canine

BREED

Boxer

SEX

MN

AGE

10.3.20

WEIGHT

96lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Schaupp

INVOICE

47070

PRESENTING CLINICAL SIGNS

History: Presented for lethargy, inappetence, spitting up phlegm. Recently placed on Mexiletine 250mg 1 TID for finding of arrhythmia (02/02/2026). EKG demonstrated couplets of VPCs every 4th beat. Today EKG demonstrates HR 124 to 158 BPM, 2 single VPCs per minute. Ascites noted with fluid wave, mmemb pink. Completely anorexic since starting Mexiletine. O had been trying to give with food; he will not eat. Abdominocentesis revealed slightly blood tinged fluid.
Pertinent abnormal PE/Chem/CBC/UA Results: Alt 303, Alk Phos 489.
-CXR (2/19/25): moderate cardiomegaly. At this time, there was no ascites.
-Current medications: Mexiletine 250mg 1-tab TID, Cerenia 120mg 1 QD
-Blood Pressure: 82, 81, 100mmHg
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Approved.
-Imaging performed by: Stephanie Warga RDCS, RVT.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 5mm/mV. The rhythm is sinus in origin with an average heart rate of 120bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS is prolonged. No VPCs are identified. The MEA is shifted left. No APCs, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm. Left axis deviation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Severe eccentric mitral regurgitation with severe LA dilation. The MR velocity is normal. Significant LV dilation with significantly depressed myocardial function. The tricuspid valve appears normal in morphology, with severe tricuspid regurgitation. Mildly elevated TR velocity. The right atrium is moderately dilated. The ventricle is severely dilated with depressed function. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic and mild pulmonic insufficiency. No significant pericardial or pleural effusion. 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	5.0	3.1	NM	2.8	18	38	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	1.2	0.7	43.5	5.9	6.0	4.3
*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)
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

The academic diagnosis could be argued in this case. There is significant four chamber dilation and dysfunction, which given the breed is likely the DCM-form of ARVC. That being said, it is rare to see severe MR and TR to this degree with just a primary cardiomyopathy. The patient is relatively young for chronic degenerative valve disease, and the valves do not appear dysplastic, making this difficult to explain. The TR velocity is mildly elevated suggestive of early pulmonary hypertension, which is not surprising. No additional structural issues are seen.

Regardless, the findings are severe and confirm right-sided CHF is the cause of ascites. Full cardiac support should be continued forward as below. Abdominocentesis should be performed if or when the patient is uncomfortable or inappetent.

The ECG is normal with a normal sinus rhythm and no ventricular arrythmias are appreciated. There is a left bundle branch block, which is a benign conduction abnormality. No dysrhythmias are observed.

Despite an apparently positive response to Mexiletine, the patient does not appear to be tolerating it well. This is not uncommon with this drug and Sotalol may be the superior choice. Changing from Mexiletine to Sotalol is recommended as below in hopes in improving clinical status while maintaining adequate rhythm control.

Prognosis is poor at this stage with most dogs succumbing to CHF in less than 6 months. There is high risk for recurrent congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death in the future even on medications.

Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

Elective anesthesia is not advised.

Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF going forward.

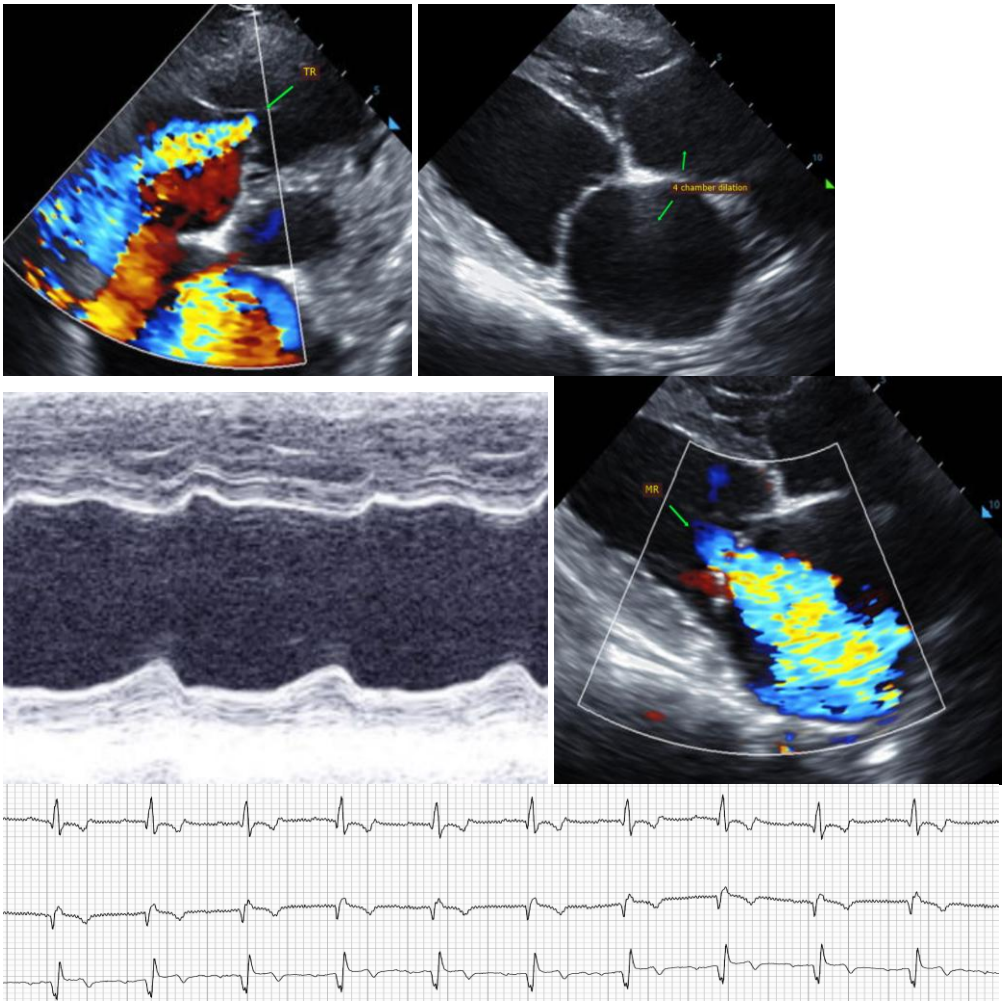
PLAN

Abdominocentesis if or when the patient is uncomfortable or inappetent. Institute Lasix 1-2mg/kg PO q12h. Institute heart muscle support Pimobendan (Vetmedin) 0.3mg/kg PO q12h. Institute Spironolactone 1-2mg/kg PO q12h (available in 25 and 50mg tablets). Consider change to Sotalol 1-2mg/kg PO q12h. Discontinue Mexilitene.

Monitor renal values, BP and ECG n 1-2 weeks. If doing well and BP is >130mmHg, consider ACE-I 0.5mg/kg PO q12h. Monitor renal values and BP every 3-4 months lifelong. If the patient is still inappetent, further workup is advised. Ideally a holter should be considered due to the arrhythmia.

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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