



PATIENT

Oreo Dunn

SPECIES

Canine

BREED

Maltese Mix

SEX

Neutered Male

AGE

15 Years

WEIGHT

18.8 Pounds

INTERPRETED BY

Sara Brethel, DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Chrissy Krell, DVM

HOSPITAL NAME

Taylor Veterinary
Emergency Hospital

REFERRING VET

Chrissy Krell, DVM

INVOICE

37315

DATE

6/3/26

PRESENTING CLINICAL SIGNS

History: Patient presented 3 days ago for coughing. Patient was evaluated and x-rays revealed an enlarged LA. Treated for tracheal irritation with prednisone 5mg PO SID. This improved the coughing until last night, patient became more dyspneic about 1 am this morning (6/3). Triaged about 1 pm - noted dilated LA on US and 3-4 Blines in all fields. Client agreed to stabilization and oxygen support. TXR consult confirmed left sided CHF, recommended echocardiogram to screen for right sided disease due to hepatomegaly. Patient started with 3mg/kg IV Furosemide, oxygen support, Pimobendan 2.5mg PO BID and Enalapril 5mg PO SID.

Abnormal PE/Chem/CBC/UA Results: PE: dyspneic and tachypneic about 60-80 rpm, HR 80 bpm, notable murmur left sided 5-6/6. light pink mm. Cataracts OU, advanced dental disease. CBC: neutrophilia 13.2K/uL, Monocytosis 1.33K/uL, Chem: BUN 36, ALT did not read pending rerun, TT4 0.9 ug/dL (low) TXR Consult findings: CONCLUSIONS: 1. Moderate cardiomegaly with moderate to severe left atrial dilation. The most likely aetiology is mitral valve endocardiosis. 2. Pulmonary venous congestion. 3. Mixed severe interstitial and alveolar pattern, left and right caudal lung lobes and right cranial lung lobe. 4. The visible pleural fissure lines are compatible with a small volume pleural effusion, most likely from early right-sided congestive cardiac failure. 5. Mild hepatomegaly.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	~6.0	~3.0	NM	2.19	42.46	--	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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				
PATIENT	--	~1.3	~0.8	8.54	4.7	3.65	2.1

Cardiac Presentation

The mitral valve leaflets are moderately thickened with moderate mitral regurgitation posteriorly directed. There is moderate prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular internal dimensions during diastole are increased and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild tricuspid



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regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic and pulmonic valves have normal morphology, and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

ULTRASONOGRAPHIC FINDINGS

- Degenerative valve disease, ACVIM stage C
- Mild tricuspid regurgitation without evidence of significant pulmonary hypertension

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are reported signs of congestive heart failure and the patient has degenerative valve disease stage C. Furosemide and pimobendan therapy is recommended. Furosemide at a starting dose of 2mg/kg PO q12. Pimobendan therapy at a dose of 0.27-0.32mg/kg PO q12 is recommended. These will likely be lifelong therapies. Recheck chest radiographs is recommended in 7-10 days along with blood work and a blood pressure. If the patient is doing well and the kidney values are within normal limits, recommend starting an ACE inhibitor (enalapril or benazepril 0.5mg/kg POq12-24) and spironolactone (2mg/kg PO q24). 2-3 weeks after starting ACE inhibition, repeat kidney values are recommended. If the patient is doing well, a recheck echocardiogram is recommended in 4-6 months. Blood work to assess these patients is recommended every 4-6 months.

If the patient is clinically unstable, continued hospitalization is recommended. They may require a furosemide CRI. Typically, I recommend 0.5 mg/kg per hour for 6 hours while continuing pimobendan therapy. ACE inhibitor therapy is typically not recommended until the patient has recovered, clinically improved eating and drinking, and normal kidney values.

Blood pressure monitoring is recommended. Recommend obtaining a blood pressure on the patient to ensure it is <160mmHg. If the blood pressure is elevated recommend following ACVIM guidelines for systemic hypertension and treating if indicated.

While there was evidence of pleural fissure lines, the right side is within normal limits and right-sided congestive heart failure based upon the images provided is not identified.

The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

Elective anesthetic procedures are not recommended for this patient moving forward.



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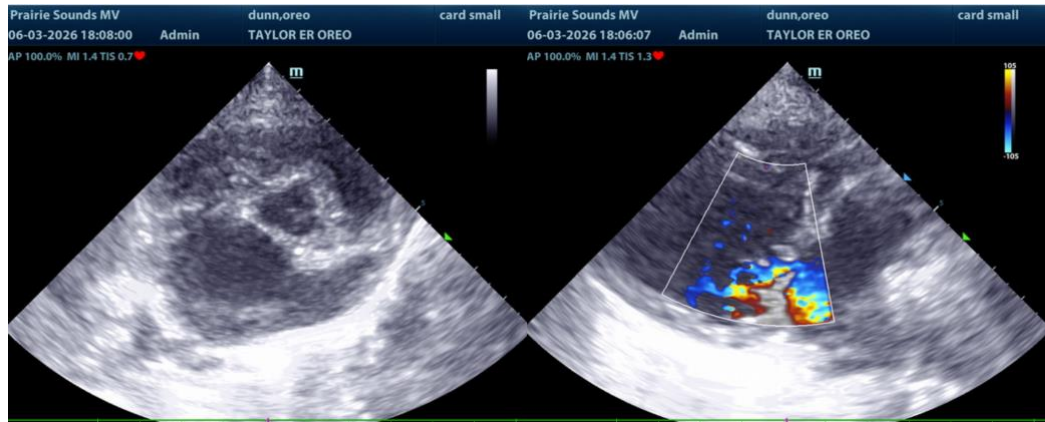
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Sara Brethel DVM, DACVIM (Cardiology)

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