


**RESENTING CLINICAL SIGNS**

History: Diagnosed with CHF at the ER.

**DATE**

4/7/22

**ECHOCARDIOGRAPHIC FINDINGS**

2D, M-mode, and Doppler study.

**PERFORMED BY:**

Dr. Paul Kim

**INTERPRETED BY**

 Keith Blass, DVM,  
 MS, DACVIM  
 (Cardiology)

Left atrial size is normal. The mitral valve leaflets are mildly thickened and exhibit systolic prolapse. A mild jet of eccentric mitral regurgitation is present. Left ventricular dimensions are normal. Left ventricular systolic function is hyperdynamic. Left ventricular diastolic function is characteristic of an age-related relaxation abnormality, and is suggestive of normal left heart filling pressure. The aorta and aortic valve appear normal, though there is mildly increased flow velocity in the ascending aorta. Right atrial and right ventricular dimensions are normal. The tricuspid valve leaflets are mildly thickened, and a mild jet of tricuspid regurgitation is present. TR velocity does is consistent with the presence of moderate pulmonary hypertension. The pulmonary artery and pulmonic valve appear normal, though trace pulmonic insufficiency is present. No shunting lesions are visualized. No heartworms are visualized. No pericardial effusion or cardiac masses are seen.

**PATIENT**

ECG during echo: Sinus/sinus arrhythmia

Oreo Park

 LA - 17.2 mm  
 RA - 16.5 mm  
 LVIDd - 23.3 mm  
 LVIDs - 12.7 mm  
 FS - 47.8%  
 LVOT - 1.92 m/s  
 RVOT - 1.10 m/s  
 TR - 4.23 m/s

**SPECIES**

Canine

**BREED**

Chihuahua

**ASSESSMENT/RECOMMENDATIONS**

 Degenerative mitral and tricuspid valve disease  
 Pulmonary hypertension

**SEX**

FS

**AGE**

13 y

This examination demonstrates mild regurgitation of blood across Oreo's mitral and tricuspid valves resulting from degenerative valve disease. The hemodynamic effects of each of the regurgitations also appear to be mild, as Oreo does not have secondary dilation of any of her cardiac chambers. As such, it would be very surprising if Oreo experienced an episode of congestive heart failure, however, I would believe it to be true if radiographs were consistent with the presence of pulmonary edema and Oreo's respiratory rate/effort improved with cardiac therapy.

**WEIGHT**

5.1 lb

Oreo's tricuspid regurgitation velocity is consistent with the presence of moderate pulmonary hypertension. It's possible that Oreo's pulmonary hypertension could be contributing to her trouble breathing, and it's possible that an underlying cause of the pulmonary hypertension, such as respiratory disease or pulmonary thromboembolism, could be contributing as well.

**HOSPITAL NAME**

Ridgefield Park AH

Recommended therapy for Oreo's pulmonary hypertension is sildenafil (5 mg BID-TID). No therapy appears to be indicated for Oreo's valvular diseases based on her echocardiogram alone, however, if radiographs from the ER were consistent with congestive heart failure, therapy with furosemide (5 mg BID), enalapril (1.25 mg BID), and pimobendane (0.625 mg BID) would be warranted.

**REFERRING VET**

Dr. Kim

A renal/electrolyte profile is recommended in 1-2 weeks if CHF therapy is started. A recheck echocardiogram is recommended in 4-6 months, sooner if Oreo experiences syncope and/or right-



sided CHF.

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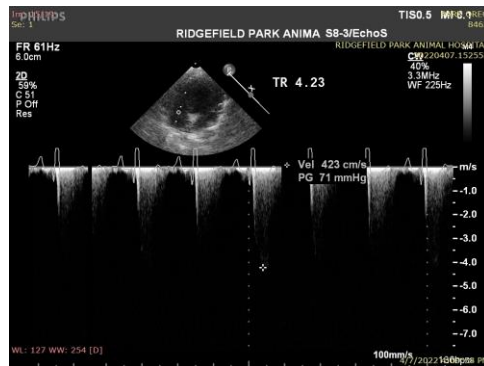
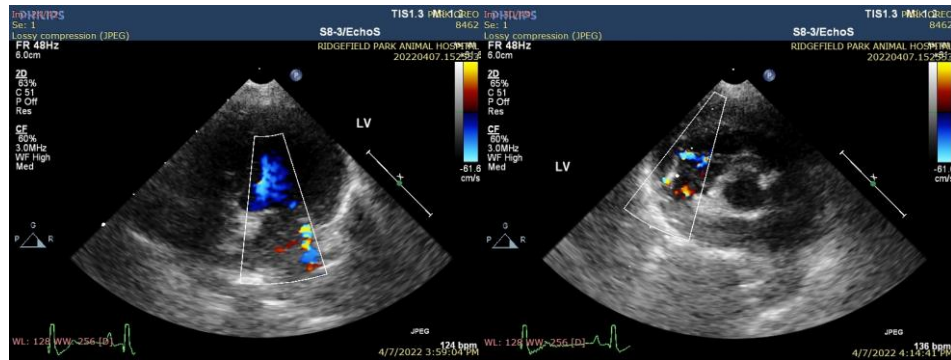
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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