
**PRESENTING CLINICAL SIGNS**

History: Increased coughing/gagging recently, less active. Cough easily induced with tracheal palpation. Grade 6/6 murmur. Currently receiving furosemide 30 mg BID, pimobendan 2.5 mg BID, and hydrocodone 2.5 mg PRN.

**DATE**

12/10/21

**ECHOCARDIOGRAPHIC FINDINGS**
**PERFORMED BY:**

2D, M-mode, and Doppler study.

Jenna Walsh, CVT

**INTERPRETED BY**

 Keith Blass, DVM,  
 MS, DACVIM  
 (Cardiology)

There is severe left atrial dilation. The mitral valve leaflets are thickened and exhibit systolic prolapse. A severe jet of eccentric mitral regurgitation is present. There is moderate to severe left ventricular dilation. Left ventricular systolic function is hyperdynamic. The aorta and aortic are normal. 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 is consistent with the presence of very mild pulmonary hypertension (PG 33.4 mmHg). The pulmonary artery and pulmonic valve are normal. No heartworms are visualized. No pericardial effusion or cardiac masses are seen.

**PATIENT**

 LA – 45.9 mm  
 LVIDd – 41.2 mm  
 LVIDs – 19.8 mm  
 FS – 51.9%  
 RA – 20.0 mm  
 LVOT – 1.56 m/s  
 RVOT – 1.14 m/s  
 TR – 2.89 m/s

Gizmo Galloway

**SPECIES**

Canine

**ELECTROCARDIOGRAPHIC FINDINGS**

A single lead ECG is submitted for review.

**BREED**

Rat Terrier

 HR: 74 bpm  
 Rhythm: Sinus arrhythmia

**SEX**

Sinus arrhythmia is present throughout this recording. All complex amplitudes and intervals are within normal limits. No premature beats or conduction blocks are seen.

**MN**
**ASSESSMENT/RECOMMENDATIONS**

Degenerative mitral and tricuspid valve disease

**AGE**

Pulmonary hypertension

11 y

This examination demonstrates regurgitation of blood across Gizmo's mitral and tricuspid valves resulting from degenerative valve disease. Gizmo's tricuspid valve disease is mild, and appears to be well-compensated at this time. His mitral valve disease is significantly more advanced, as Gizmo has severe mitral regurgitation present, with severe secondary dilation of his left atrium and moderate to severe dilation of his left ventricle, as well as very mild secondary pulmonary hypertension. Given the severity of his disease, it's likely that mainstem bronchial compression is contributing to Gizmo's cough, though it's possible that dynamic tracheal collapse could be contributing as well. In addition to coughing, Gizmo is at high risk for the development of exercise intolerance, syncope, and labored breathing, therefore, careful monitoring for these signs is recommended.

**WEIGHT**

18.9 lb

**HOSPITAL NAME**

Four Corners VC

No abnormalities are appreciated in Gizmo's ECG.

**REFERRING VET**

Dr. Williams



Gizmo's current cardiac medications appear to be appropriate based on this exam, and the lowest effective furosemide dose is recommended to control his cough. I also recommend starting Gizmo on enalapril (5 mg BID). Continued use of hydrocodone is acceptable if needed.

DATE

12/10/21

A renal/electrolyte profile is recommended in 1-2 weeks. A recheck echocardiogram is recommended in 6 months. Thoracic radiographs are recommended if clinical signs compatible with congestive heart failure develop.

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PATIENT

Gizmo Galloway

SPECIES

Canine

BREED

Rat Terrier

SEX

MN

AGE

11 y

WEIGHT

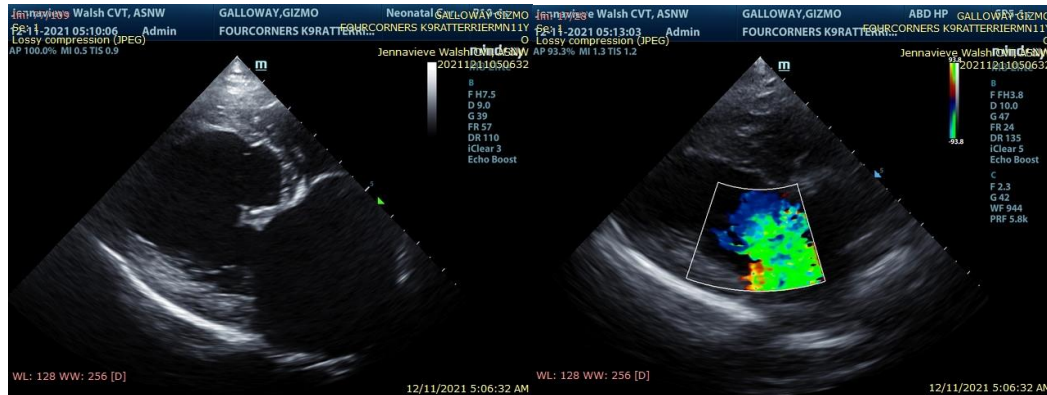
18.9 lb

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REFERRING VET

Dr. Williams



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.

Keith Blass, DVM, MS, DACVIM (Cardiology)

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