



PATIENT

Gizzy Greco-O'Rourke

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

13 years

WEIGHT

16.2lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Jennifer Migner,
RDCS

HOSPITAL NAME

Wood River Animal
Hospital

REFERRING VET

Dr.Fishcer

INVOICE

22670

DATE

2/18/22

PRESENTING CLINICAL SIGNS

History: Presented several days ago for lethargy and decreased appetite. Placed on enrofloxacin for suspected pneumonia and UTI. Patient had presumptive seizure. Enrofloxacin discontinued and placed on sulfatrim. Flash AUS to obtain urine sample revealed scant abdominal effusion. On TMS 480mg, 1/4 t BID. Radiographs: cardiomegaly and perihilar infiltrates. Mild tracheal collapse. Auscultation difficult.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.

Left atrium: The left atrium is normal.

Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. Mild eccentric mitral regurgitation with a normal velocity.

Aortic valve/aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Mild RV enlargement.

Right atrium: Moderate RA enlargement.

Tricuspid valve: The tricuspid valve appears thickened with septal prolapse and moderate to severe tricuspid regurgitation. Velocity consistent with early pulmonary hypertension.

Pulmonic valve/pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

Pericardium/other: Small volume pericardial effusion noted. Scant abdominal effusion. No obvious cardiac masses.

Heart rhythm: ECG reveals a sinus rhythm with an average HR of 110bpm with dramatic rate variation.

2-Dimensional Measurements

Ao diam (cm)	1.5
LA diam (cm)	1.77
LA:Ao (Swe)	1.2
IVS thickness (cm)	0.7
LVID diastole (cm)	2.6
PW thickness (cm)	0.7
LVID systole (cm)	1.0
FS (%)	60

Doppler Measurements

PV Vmax (m/s)	0.6
AoV Vmax (m/s)	1.2
MR Vmax (m/s)	5.2
TR Vmax (m/s)	3.2
TR PG (mmHg)	40

INTERPRETATION OF THE FINDINGS

Chronic degenerative valve disease causing mild mitral and moderate to severe tricuspid regurgitation. Lack of left atrial enlargement indicates risk for left-sided congestive heart failure is low. The TR is greater in quantity than MR with moderate RA enlargement. Pulmonary pressures are mildly elevated which is of unknown significance and likely secondary rather than primary. No additional structural issues are identified.

The finding of pericardial and abdominal effusion is highly concerning. The most common rule outs for this would include a LA tear, right-sided CHF, or an extra-cardiac cause such as a tumor bleed or cancer. This case is confounding, as the LA is normal, ruling out the first option. The right heart is moderately enlarged, which would make right-sided CHF



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unusual; however, not impossible. Extra-cardiac causes are also possible and should be considered, such as a tumor not well visualized here. As an aside, perihilar infiltrates are mentioned on the radiographs, which would be unlikely without LA enlargement. Consider a Radiologist review of the films in this complicated case.

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Given that the patient is relatively stable, we have a few options going forward. First would be to attempt medical management for CHF and reassess effusion in a few days. If the patient experiences any decline in that time, immediate reassessment and hospitalization is advised. An alternative option would be to consider a

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diagnostic/therapeutic tap to help understand origin (i.e., is the effusion hemorrhage or not), however this certainly carries risk. If the patient is progressively hypotensive or has evidence of developing tamponade this will become necessary rather than optional.

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Discussion with the owner is advised. If this cannot be done safely in your facility, referral for advanced work-up/treatment may be indicated. Regardless of cause, prognosis is guarded going forward.

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RECOMMENDATIONS

- Consider options as discussed. If treatment is elected, institute Lasix 1-2mg/kg PO q12h, Pimobendan 0.25mg/kg PO q12h, Spironolactone 1-2mg/kg PO q12h, Sildenafil 1-2mg/kg PO q12h.
- Reassess effusion status in 2-3 days, sooner if any decline in the interim.
- Alternatively consider referral versus pericardiocentesis as discussed.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

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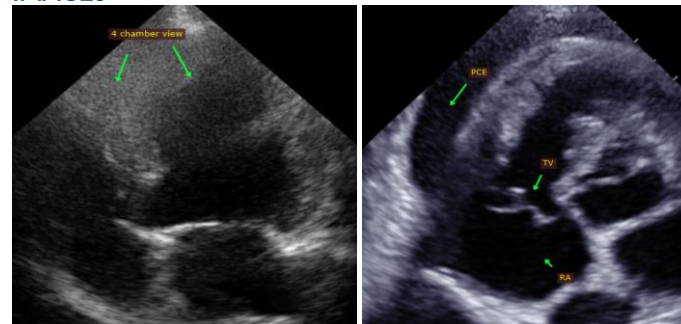
PLAN

- Recommend conservative monitoring with a full recheck echocardiogram in 6 months, sooner pending clinical response.

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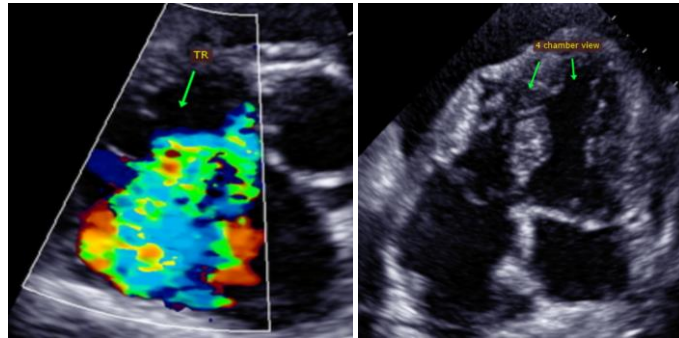
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. 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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