



**PATIENT**

Angus Scottish Terrier  
CR

**SPECIES**

Canine

**BREED**

Scottish Terrier

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

22 Pounds

**INTERPRETED BY**

Sara Brethel DVM,  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Brandi Kurzowski

**HOSPITAL NAME**

Corfu VC

**REFERRING VET**

Dr. Nicole Kelper

**INVOICE**

35487

**DATE**

11/11/25

**PRESENTING CLINICAL SIGNS**

History: New p exam 11/8/25. Grade 1/6 heart murmur systolic left heart base. No arrhythmias ausculted, strong synchronous pulses. Rescue also elects to do abdominal ultrasound to search for abnormalities and evaluate liver as liver values elevated on BW.

Abnormal PE/Chem/CBC/UA Results: 11/8/25 CBC: NSF Chem: Anion Gap 28 (11-26), ALT 249 (18-121), ALKP 4691 (5-160), GGT 14 (0-13), rest WNL T4: 1.3 (1-4) 4DX: Lyme +, rest neg (has been positive in past), QC6- 12.

**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)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
<b>PATIENT</b>	NM	NM	NM	1.5	33.33	--	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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>	--	~0.6	~0.8	10	3.5	3.0	2.0

AI: Underestimated

**Cardiac Presentation**

The mitral valve leaflets are mildly thickened with mild mitral regurgitation posteriorly directed. There is no prolapse of the mitral valve leaflet. The left atrial size is mildly increased. Left ventricular internal dimensions during diastole are within normal limits and systolic function is preserved in the face of mitral regurgitation. There is normal right atrial size with mild tricuspid 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 mild evidence of pulmonic insufficiency. There is at least moderate evidence of 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 B-1



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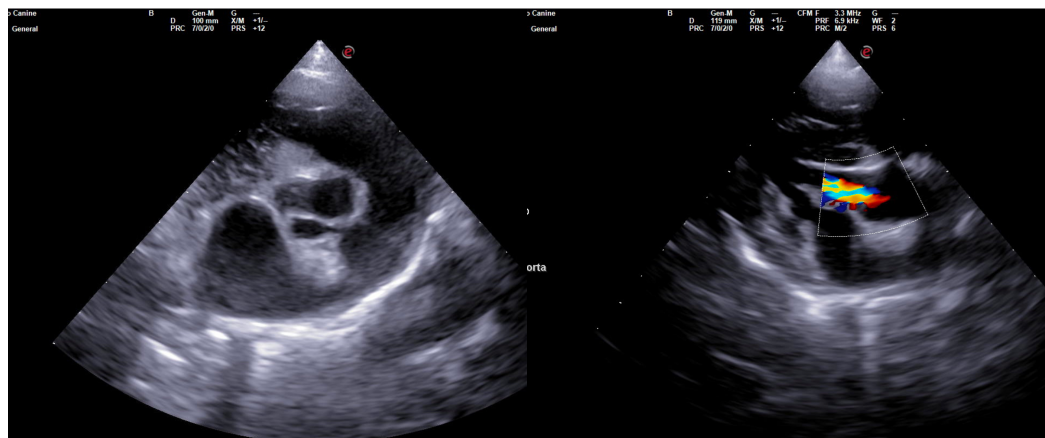
- Mild left atrial enlargement
- Mild tricuspid regurgitation
- Significant aortic insufficiency
- Mild pulmonic insufficiency

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease ACVIM stage B1 and no cardiac medications are indicated at this time. Since this can be a progressive condition, serial monitoring is recommended. A recheck echocardiogram is recommended in 4-6 months. A sooner recheck is recommended if the patient develops cardiovascular clinical signs or the heart murmur is worsening in intensity. Elective anesthetic procedures should be well tolerated.

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.

The aortic valve may also have degenerative changes contributing to the aortic insufficiency, but it is strongly recommended to ensure the patient does not have underlying systemic hypertension. While the left atrium is at the upper limits of normal to mildly increased, I would hold on cardiac therapies at this time. However, if there is progression in the next several months, then therapies would be indicated. If it preferred to hold on a sooner recheck, then we can start pimobendan at a dose of 0.27-0.32 mg/kg twice daily. If starting pimobendan, I would recommend a recheck echo in 10-12 months.



**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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[info@SonoPath.com](mailto:info@SonoPath.com)

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