



**PATIENT**

Bella Shrewsbury

**SPECIES**

Canine

**BREED**

Schnauzer

**SEX**

Spayed Female

**AGE**

15 Years

**WEIGHT**

11.5 Pounds

**INTERPRETED BY**

Sara Brethel, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Kathleen Byrnes

**HOSPITAL NAME**

Scotts Creek AH

**REFERRING VET**

Dr. Cartner

**INVOICE**

35695

**DATE**

2/4/26

**PRESENTING CLINICAL SIGNS**

- P presented for echo due to heart murmur and need for anesthesia and dental. P is currently on Pimobendan and Enalapril.
- BP 130/98 (109)
- 143/114 (124)

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

<b>CANINE CARDIAC PARAMETERS</b>	<b>MR VMAX</b> (m/s)	<b>TR VMAX</b> (m/s)	<b>LA/AO</b> (M-Mode)	<b>LA/AO</b> (Heart Base; Swe)	<b>FS</b> (%)	<b>EF</b> (%)	<b>EPSS</b> (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>	Underest	--	1.83	1.7	53.23	--	0.17
<b>CANINE CARDIAC PARAMETERS</b>	<b>HR</b> (BPM)	<b>AV VMAX</b> (m/s)	<b>PV MAX</b> (m/s)	<b>BODY WEIGHT</b> (kg)	<b>LAD</b> LA MAX 4 Chamber	<b>LVIDd</b> Avg; 2D and m-mode short axis (cm)	<b>LVIDs</b> 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>	101	1.37	0.91	5.22	3.42	3.1	1.45

**Chest Radiographic Interpretation**

There is mild to moderate left sided cardiomegaly without evidence of cardiogenic pulmonary edema. There is no evidence of congestive heart failure. There is mild left atrial enlargement.

**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 moderately 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 without 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 no evidence of pulmonic insufficiency. There is mild aortic insufficiency. The aorta appears normal. The pulmonary artery and



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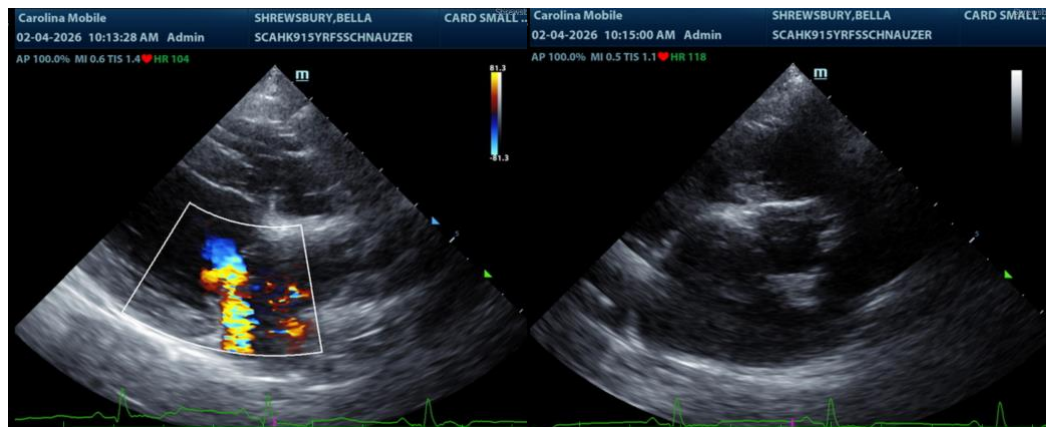
associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

**ULTRASONOGRAPHIC FINDINGS**

- Degenerative valve disease, ACVIM stage B-2
- Moderate left atrial enlargement
- Mild aortic insufficiency

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The patient continues to have degenerative valve disease, ACVIM stage B-2. There is evidence of increased atrial pressures, however, due to the left atrial enlargement, the patient is at a mildly increased risk for elective anesthetic procedures. Recommend giving pimobendan the morning of the procedure, and close monitoring of breathing rates. Judicious perioperative fluids are recommended due to the increased left atrial size. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia. 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. Recheck echo in 6 months. If there are any concern postoperatively for heart failure, recommend obtaining repeat chest radiographs.



**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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