



**PATIENT**

Bobby Elliot

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Neutered Male

**AGE**

9 Years

**WEIGHT**

15.7 Pounds

**INTERPRETED BY**

Sara Brethel DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

Companion AC

**REFERRING VET**

Dr. Casita

**INVOICE**

36802

**DATE**

12/8/25

**PRESENTING CLINICAL SIGNS**

History: Clinical Exam Findings: grade 4/6 Left systolic heart murmur, first noted in Jan 2025 grade 3/4 periodontal dz needs cardiac assessment prior to anesthesia for dental ABNORMAL Labwork Values nonrecent For ECHO Only: Blood Pressure will take day of HR/RR/BP: 114/30/will take day of Is there a Heart Murmur? If so, please grade. 4/6 left systolic Current Medications Cyclosporin 25 mg 3x/week Radiographic Findings Will take rads day of with sedation, P AWC and difficult for basic treatments.

**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>	5.57	2.96	NM	1.4	43.22	--	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>	--	1.3	0.9	7.13	2.5	2.73	1.55

**ECG Interpretation**

Sinus rhythm with a sinus arrhythmia.

**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 normal. 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 mild evidence of pulmonary hypertension based upon tricuspid regurgitant velocities. The right ventricle subjectively appears normal in structure and function. The aortic valves are mildly thickened. The pulmonic valves are normal and there is no evidence of pulmonic or 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**



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- Degenerative valve disease, ACVIM stage B-1
- Mild tricuspid regurgitation with mild pulmonary hypertension
- Mildly thickened aortic valves

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**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 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.

Standard perioperative fluid rates should be well-tolerated. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. Anticholinergics can be used in the case 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 aortic valve is mildly thickened and likely also mildly degenerative. Recommend ensuring the patient is normotensive. 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.

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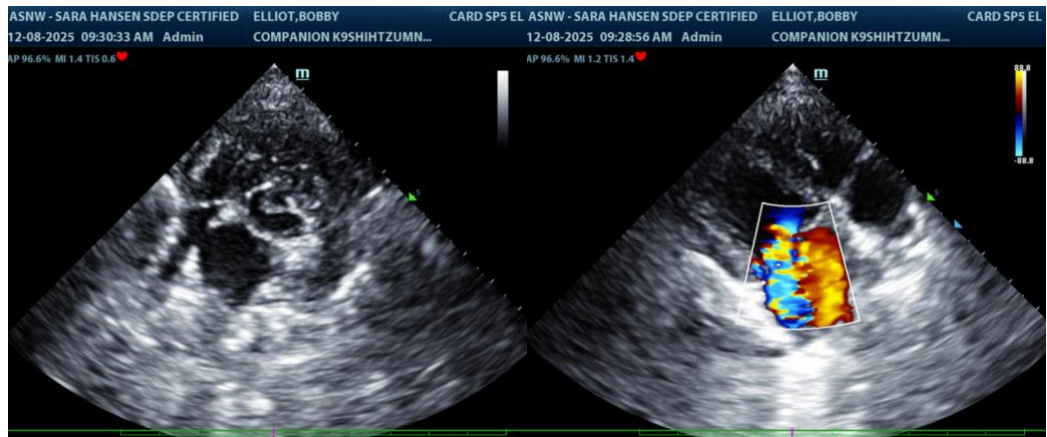
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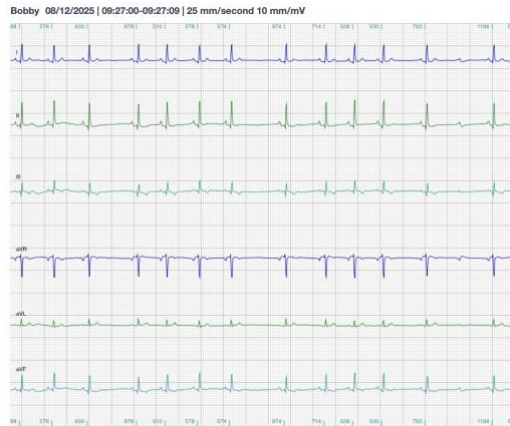
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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