



**PATIENT**

Nicholas Mather

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Neutered Male

**AGE**

11.5 Years

**WEIGHT**

17.8 pounds

**INTERPRETED BY**

Sara Brethel DVM,  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Dr. Sorbo

**HOSPITAL NAME**

JM Pet Resort &  
Veterinary Clinic

**REFERRING VET**

Dr. Sorbo

**INVOICE**

14461

**DATE**

03/19/26

**PRESENTING CLINICAL SIGNS**

- Grade VI/VI murmur, PMI LHB
- Hx of Stage B1 MV Dz
- Coughing more and more - prev dx with tracheomalacia.
- On Cerenia for cough
- OD anterior lens luxation

Abnormal PE/Chem/CBC/UA Results: Pending rads of chest. BP 119mmHg on doppler. Imaging with P under butorphanol.

**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)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	~6.0	~3.0	NM	1.25	52.94	--	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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
PATIENT	NM	~1.0	~1.0	8.1	3.1	2.55	1.2

**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 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 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**

- Degenerative valve disease ACVIM stage B1.



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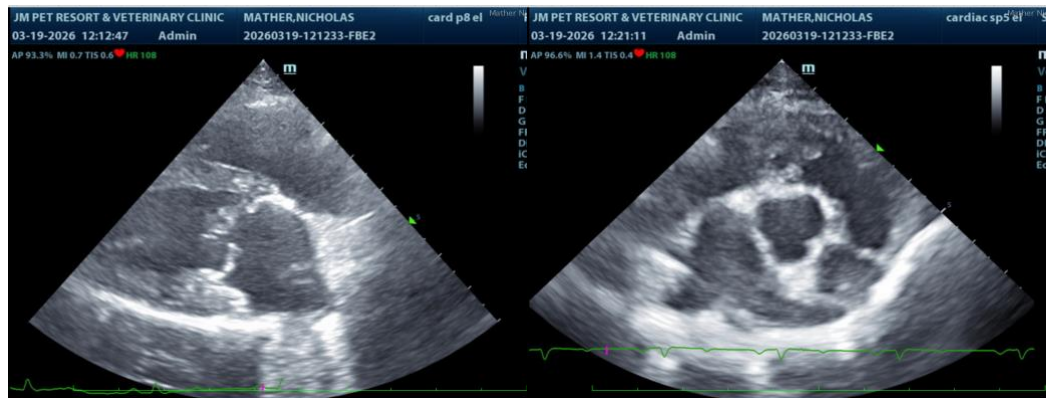
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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 10-12 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.

The reported blood pressure is within normal limits. The cause of the cough does not appear to be cardiac in nature. I recommend ensuring thoracic radiographs are normal. Recheck echo in 6-12 months, sooner if the murmur is changing in intensity or the patient is developing other cardiovascular clinical signs.



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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