



PATIENT

Buttercup Cartwright

SPECIES

Canine

BREED

Japanese Chin/Terrier
Mix

SEX

Spayed Female

AGE

10 Years

WEIGHT

12.8 lbs

INTERPRETED BY

Sara Brethel DVM,
DACVIM (Cardiology)

IMAGING PERFORMED BY

Dr. Christina Wagner

HOSPITAL NAME

Angeles Clinic for
Animals

REFERRING VET

Dr. Christina Wagner

INVOICE

15853

DATE

05/06/26

PRESENTING CLINICAL SIGNS

Has had heart murmur since 2025, stable

Abnormal PE/Chem/CBC/UA Results: IV/VI left apical murmur Rads: Heart: The cardiac silhouette is tall, suggesting left ventricular enlargement. There is a loss of the caudal cardiac waist, suggesting left atrial enlargement. On the sagittal view, a bulge is noted in the area of projection of the left auricle suggesting enlargement. VHS: 12.05 (normal for a generic dog: 8.7-10.7); VLAS: 2.64 (normal: less than 2.3) • Pulmonary vasculature: Symmetrical and normal in size. • Great vessels: Within normal limits. ACVIM Stage B2 mitral valve disease suspected Blood pressure - about 140 mmHg doppler

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	--	NM	NM	39.28	--	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	NM	--	5.82	3.55	3.08	1.87

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 to severely 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 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 B2.
- Moderate to severe left atrial enlargement.



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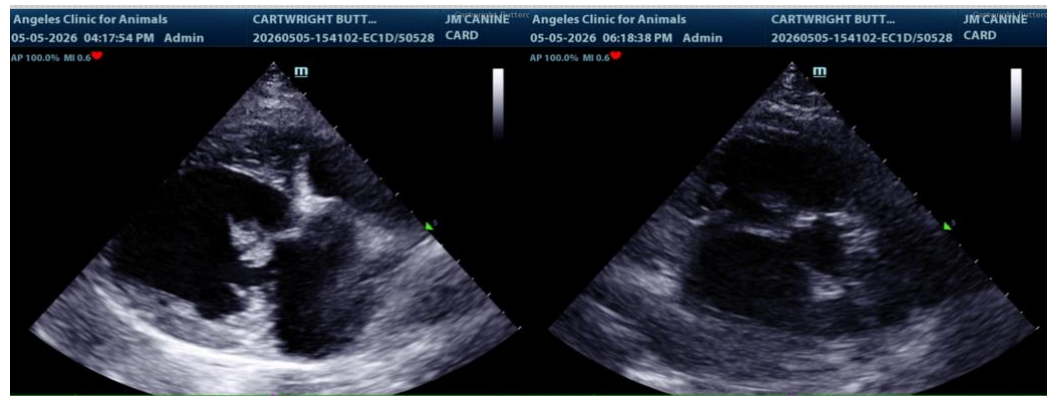
05/06/26

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient has degenerative valve disease ACVIM stage B2 and Pimobendan therapy at 0.27-0.32mg/kg PO q12 is recommended. This will be a lifelong therapy. A recheck echocardiogram is recommended in 4-6 months to monitor the condition since starting Pimobendan. A sooner recheck is recommended if the patient develops cardiovascular clinical signs or the heart murmur is worsening in intensity. 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.

The reported blood pressure is within normal limits. There is an increased risk for elective anesthetic procedures due to the severity of the left atrial size. If anesthesia is needed, recommend the patient be on Pimobendan for at least 1-3 weeks prior to these elective procedures.

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 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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