



## PATIENT

Gracie Marcus

## SPECIES

Canine

## BREED

Maltese

## SEX

Female Spayed

## AGE

9 years

## WEIGHT

9.2lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Kelly Vazquez, CVT

## HOSPITAL NAME

Ho Ho Kus Veterinary  
Hospital

## REFERRING VET

Dr. Eisenberg

## INVOICE

25237

## DATE

7/11/22

## PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade 3/6 heart murmur.

-Pertinent previous echo findings (8/2021 MML): Mild MR, mild LAE, no LVE, mild aortic valve thickening with mild to moderate AI. AV max: 3.4m/s.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Mild eccentric mitral regurgitation with mild left atrial dilation. Normal LV diameter with adequate myocardial function. Mild LV hypertrophy noted. The tricuspid valve appears normal with no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic valve is normal in morphology and mobility. The aortic valve is mildly thickened. Mild to moderate aortic insufficiency. Velocity through the region is severely elevated, consistent with stenosis. Normal pulmonic outflow velocities with laminar flow. No pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

## CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NM	NA	1.5	1.4	34	64	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	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	BELOW	BELOW	BELOW	BELOW
PATIENT	100	5.6	1.7	4.2	1.9	2.9	1.9
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease persists with evidence of stability. Mild mitral regurgitation is unchanged with mild left atrial enlargement. What has progressed, is the aortic stenosis is now severe (previously noted as mild), while this may reflect some degree of heart rate and/or volume variability, this is concerning with development of mild LVH. No additional issues are noted in this study.



**PATIENT**

Gracie Marcus

Even with progression in aortic stenosis, I would not necessarily utilize Atenolol at this juncture. Atenolol can have a negative impact on valve disease, and we must balance the two issues going forward. The overall disease appears relatively well compensated for and continued monitoring is advised. If the patient experiences significant exercise intolerance or syncope heart rate control may certainly become warranted. No indication for Pimobendan at this time.

**SPECIES**

Canine

Prognosis is guarded, given the unusual nature of this case. Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**BREED**

Maltese

Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**SEX**

Female Spayed

**AGE**

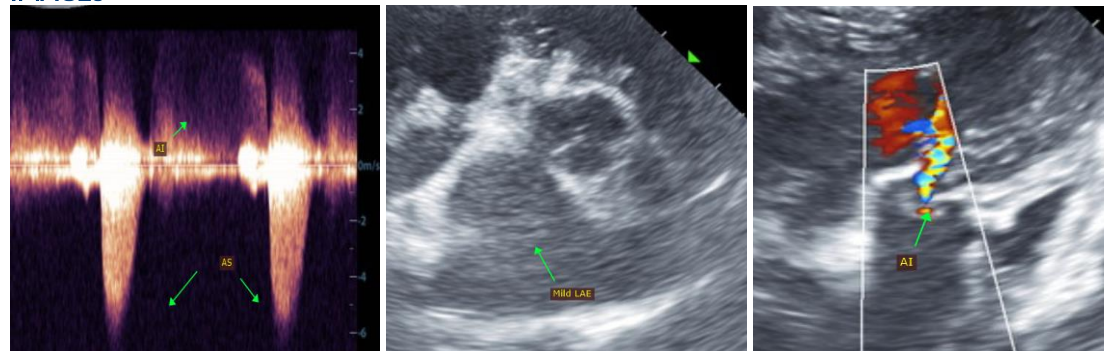
9 years

Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

**WEIGHT**

9.2lbs

**IMAGES**



**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

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

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**HOSPITAL NAME**

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