

**PATIENT**

Becks Almeida

**SPECIES**

Canine

**BREED**

Maltese

**SEX**

Male Neutered

**AGE**

15 years

**WEIGHT**

8.5lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

New Bridge  
Veterinary Hospital

**REFERRING VET**

Dr. Glennon

**INVOICE**

29957

**DATE**

3/30/23

**PRESENTING CLINICAL SIGNS**

History: Recheck echo.

-Current medications: Spironolactone 12.5mgs SID, Furosemide 12.5mgs a.m. and 6.25mgs p.m., Pimobendan 1.25mgs BID, and Enalapril 1.25mgs BID.

-Pertinent previous echo findings (3/2022 EL): CVD B2 with MR and AI. Recommend Pimobendan and ACE-I.

**ECHOCARDIOGRAM FINDINGS**

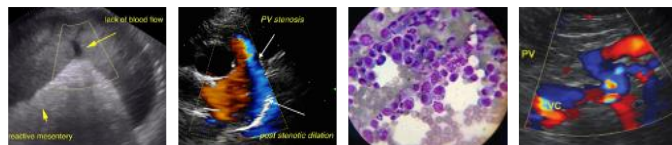
2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with prolapse into the left atrial lumen. There is severe eccentric mitral regurgitation present. The MR velocity is normal. There is severe left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. Mild right atrial and ventricular dilation (subjective). Mild thickening of the tricuspid valve with mild TR. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. The main pulmonary artery is normal in diameter. The pulmonic valve is normal in appearance. Moderate to severe aortic insufficiency. No pericardial/pleural effusion or cardiac masses are seen.

**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	6.0	NM	2.2	2.2	55	90	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	140	1.8	1.2	3.9	2.6	3.1	1.4
*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)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				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 causing severe mitral and mild tricuspid regurgitation. The LA is significantly dilated indicating a high risk for clinical signs going forward. A significant aortic leak is noted, which has certainly progressed from the prior study and routine blood pressure monitoring is advised. No additional concurrent issues are identified. Compared to what is available, this does appear to reflect progressive disease overall.



## PATIENT

Becks Almeida

## SPECIES

Canine

## BREED

Maltese

## SEX

Male Neutered

## AGE

15 years

## WEIGHT

8.5lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Kelly Vazquez, CVT

## HOSPITAL NAME

New Bridge  
Veterinary Hospital

## REFERRING VET

Dr. Glennon

## INVOICE

29957

## DATE

3/30/23

Given these findings, continued Pimobendan and Enalapril are recommended with an increase in dosing of Spironolactone. Lasix is being administered without explanation and should be continued if the patient has a history of CHF. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (late B2/C). Unfortunately the patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

Close monitoring for development of associated clinical signs (development of a cough, labored breathing, exercise intolerance or worsening collapse episodes) is recommended. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.

Elective anesthesia is not advised, as there is high risk for complication. If necessary, cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso or sevoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction and recover in O2 cage. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Moderate IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

Omega fatty acid supplementation and mild salt restriction may also be of some long term benefit.

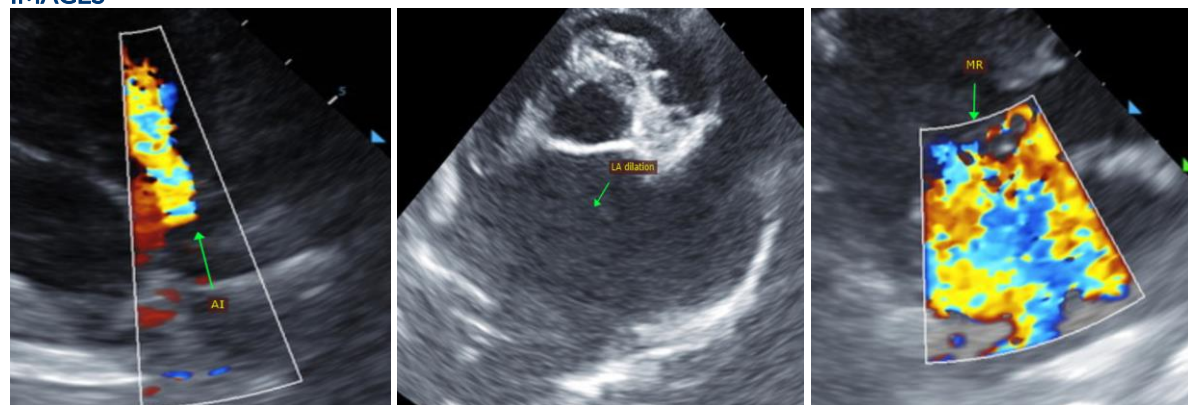
## PLAN

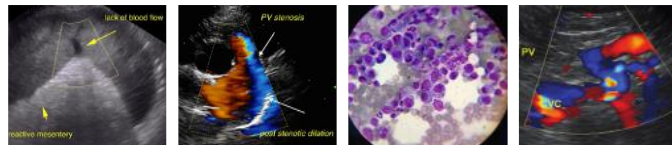
Continue Pimobendan and Enalapril as prescribed, pending BP assessment. Dose change: administer Spironolactone 6.25mgPO q12h. If CHF has been documented, continue Lasix 1-2mg/kg PO q12h.

Monitor renal values and BP every 3-4 months lifelong to ensure tolerance of medications.

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise.

## IMAGES





**PATIENT**

Becks Almeida

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.

**SPECIES**

Canine

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.

**BREED**

Maltese

Maggie Machen Lamy, DVM  
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)  
info@sonopath.com

**SEX**

Male Neutered

**AGE**

15 years

**WEIGHT**

8.5lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING  
PERFORMED BY**

Kelly Vazquez, CVT

**HOSPITAL NAME**

New Bridge  
Veterinary Hospital

**REFERRING VET**

Dr. Glennon

**INVOICE**

29957

**DATE**

3/30/23