



PATIENT

Baby Ruth Williamson

SPECIES

Canine

BREED

Havanese

SEX

Female Spayed

AGE

14 years

WEIGHT

8.8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

A. Nicastro, DVM

HOSPITAL NAME

VCA Palmetto Animal
Hospital

REFERRING VET

Dr. Leavis

INVOICE

47572

DATE

4/15/26

PRESENTING CLINICAL SIGNS

History: Recheck echo. Doing well. Grade 4/6 heart murmur.

-Current medications: Sildenafil 5mg PO q8h, Cardalis 10mg PO q24h, Furosemide 10mg PO AM, 5mg PO midday, 10mg PO PM, Pimobendan 1.25mg PO q12h

-Pertinent previous echo findings (8/2025 SB): Degenerative valve disease, ACVIM stage C (tricuspid). Degenerative valve disease, B-1 (mitral). Tricavitary effusion (suspect right sided heart failure). Degeneration of the aortic valve with aortic insufficiency, Pulmonary hypertension.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. There is severe mitral regurgitation present. There is moderate left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. Mild to moderate aortic insufficiency. The main pulmonary artery is mildly dilated. Mild to moderate right atrial and right ventricular dilation. Mild right ventricular hypertrophy. The tricuspid valve is thickened with moderate tricuspid regurgitation. The tricuspid regurgitant velocity is elevated. 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	5.1	3.7	NM	1.6	55	87	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	NM	1.3	0.6	4.0	2.4	2.9	1.3
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Compared to the prior study, findings are similar. Severe mitral and moderate tricuspid regurgitation are unchanged with stable to mildly progressed left heart dimensions. The right



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heart is enlarged, as is expected with pulmonary hypertension. The pressures appear relatively stable. Finally, the aortic valve insufficiency persists, and routine BP monitoring is advised.

Given these findings, continue all medications as prescribed. No changes are necessary unless the patient has recurrent effusion or clinical issues in the future. The average survival of canine patients at this point is <12 months and our goal is to maintain a good QOL for some time. Going forward the risk will remain high for CHF (right or left-sided), development of arrhythmias/syncope and/or sudden death, and close monitoring is advised.

Elective anesthesia is not advised.

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a worsening cough, labored breathing, abdominal distention, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is the best way to assess for development of cardiogenic edema going forward.

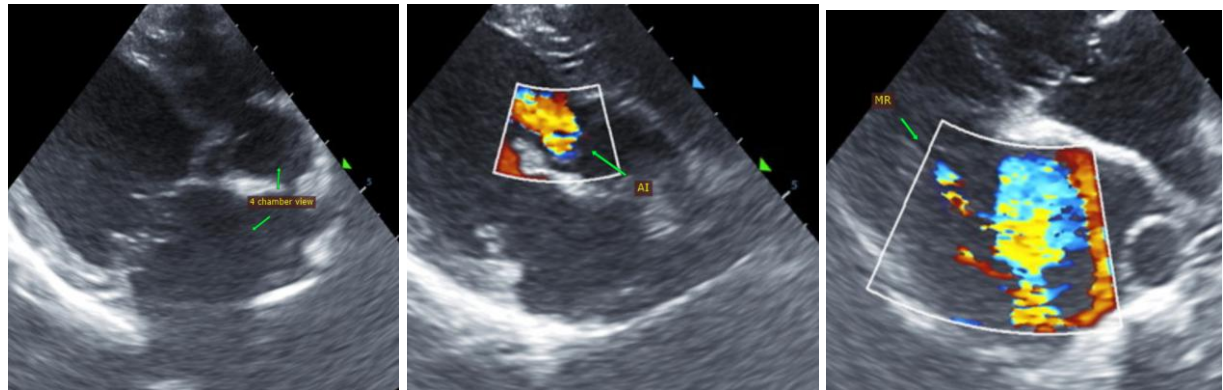
PLAN

Continue four medications as prescribed.

A renal panel and BP are recommended every 3-4 months lifelong.

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

IMAGES



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.

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.



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Maggie Machen Lamy, DVM

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