



**PATIENT**

Rowdy Randolph

**SPECIES**

Canine

**BREED**

Miniature Austr. Shep

**SEX**

MN

**AGE**

14y

**WEIGHT**

18.0kgs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Megan Spatz

**HOSPITAL NAME**

Boren VMTH- OSU

**REFERRING VET**

Dr. Pillai

**INVOICE**

29546

**DATE**

3/13/23

**PRESENTING CLINICAL SIGNS**

History: Presented 2 days ago for hematochezia. Dx with HGE. Clinically improving with supportive care (on antibiotics, pain meds, and acid reducers). On PE yesterday auscultated grade 3/6 heart murmur. No clinical signs of heart disease and not noted previously on prior exams. On AFAST FS 0/4, but gallbladder sludge noted.

Sedation: 1.8 mg Methadone given at 7am 300mg Gabapentin given at 7am 3.6 mg Butorphanol given IV immediately prior to the echo BLOOD PRESSURE- 161/70 MAP 99

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with mild prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Normal MR velocity. Mildly increased LV diameter with adequate myocardial function. The tricuspid valve appears subjectively normal, with trace tricuspid regurgitation. Normal velocity. Normal right atrial and ventricular diameter. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

**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)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
<b>PATIENT</b>	6.4	2.7	NM	1.8	36	65	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)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
<b>PATIENT</b>		1.3	1.2	18	3.4	4.7	2.7
<b>*Normal chamber parameters expressed as a mean value (SD)</b>				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b> <i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>  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				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
				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 causing moderate mitral and trace tricuspid regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication; however, risk for progression to spontaneous congestive heart failure in the future is elevated. No additional issues are identified.



**PATIENT**

Rowdy Randolph

A new murmur while being hospitalized for a separate problem is most likely a coincidence, although volume and/or heart rate changes can have some impact on murmur intensity. What is seen here is typical of an age-related process, without obvious acute exacerbating factors (such as a rupture or tear).

**SPECIES**

Canine

Given the risk for progression and results of the EPIC trial, Pimobendan is indicated in this patient as below. Assessment of progression in the future will help predict long term outcome; however, prognosis is guarded at this stage (B2).

**BREED**

Miniature Austr. Shep

Omega fatty acid supplementation and mild salt restriction may also be of some long term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

**SEX**

MN

Once on the medication for 3-5 days, anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso or sevo gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

**AGE**

14y

**WEIGHT**

18.0kgs

Plan: Baseline BP recommended every 6 months. Once feeling/eating well at home, institute heart muscle support Pimobendan 0.25-0.3mg/kg PO q12h.

**INTERPRETED BY**

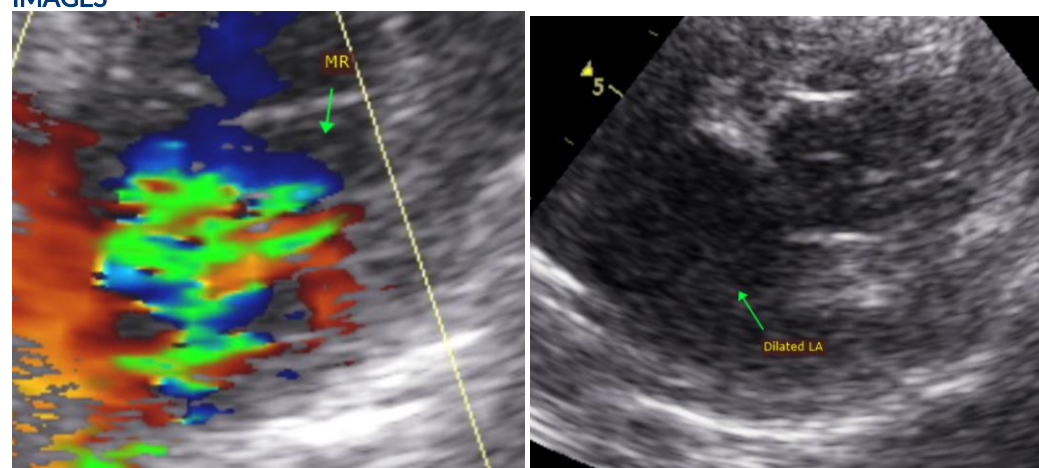
Recommend monitor for progression with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Megan Spatz

**IMAGES**



**HOSPITAL NAME**

Boren VMTH- OSU

**REFERRING VET**

Dr. Pillai

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.

**INVOICE**

29546

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.

**DATE**

3/13/23



**PATIENT**

Rowdy Randolph

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

**SPECIES**

Canine

**BREED**

Miniature Austr. Shep

**SEX**

MN

**AGE**

14y

**WEIGHT**

18.0kgs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**IMAGING  
PERFORMED BY**

Megan Spatz

**HOSPITAL NAME**

Boren VMTH- OSU

**REFERRING VET**

Dr. Pillai

**INVOICE**

29546

**DATE**

3/13/23