



PATIENT

Bowser Murphy

PRESENTING CLINICAL SIGNS

History: Worsening heart murmur, grade 3/6. HR 135/ RR35. BP: 130mmHg.
-Bloodwork: Showed mildly elevated liver enzymes.
-Radiographs: Showed left sided heart enlargement.
-Current medications: Has started Lasix and Fortekor.

SPECIES

Canine

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. There is severe left atrial enlargement. There is mild left ventricular dilation. Left ventricular systolic function is adequate. Mild right atrial and ventricular dilation (subjective). Mild thickening of the tricuspid valve with trace TR. Normal velocity. 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. Mild AI and PI. No pericardial/pleural effusion or cardiac masses are seen.

BREED

Shih Tzu Mix

SEX

Male Neutered

AGE

13 years

CARDIAC CHART

WEIGHT

26.7lbs

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	2.5	1.9	2.2	59	89	0.1
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	200	1.1	0.97	12.1	3.9	4.3	1.7
*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)
<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)

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

Hespeler Animal
Hospital

REFERRING VET

Dr. Bhinder

INVOICE

29409

DATE

3/6/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and trace tricuspid regurgitation. The LA is significantly dilated indicating a high risk for clinical signs going forward. A small aortic insufficiency is noted; however, the reported blood pressure is normal. No additional concurrent issues such as systolic dysfunction are documented.



PATIENT

Bowser Murphy

With this degree of left heart changes, the risk for spontaneous congestive heart failure is elevated and cardiac supportive medications are indicated as below. A weak diuretic (spironolactone) is included given high risk for decompensation in the future even with no reported symptoms. Lasix is not clearly warranted prior to CHF and can be discontinued. Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (late B2). Unfortunately the patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

SPECIES

Canine

BREED

Shih Tzu Mix

SEX

Male Neutered

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.

AGE

13 years

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.

WEIGHT

26.7lbs

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

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

PLAN

Continue Pimobendan 0.3mg/kg PO q12h. Continue ACE-I (benazepril or enalapril) 0.5mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h. Discontinue Lasix as discussed.

IMAGING PERFORMED BY

Crystal Hill, RVT

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

HOSPITAL NAME

Hespeler Animal
Hospital

A recheck echocardiogram is recommended in 4-6 months to screen for progression, sooner if clinical signs arise.

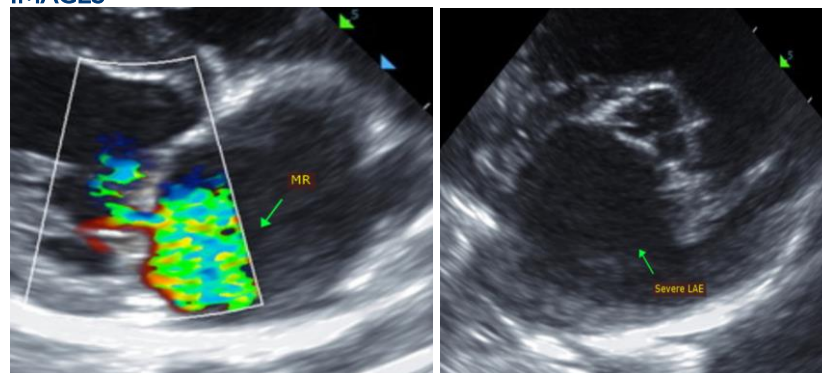
REFERRING VET

Dr. B hinder

IMAGES

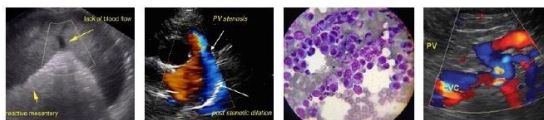
INVOICE

29409



DATE

3/6/23



PATIENT

Bowser Murphy

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

Shih Tzu Mix

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

SEX

Male Neutered

AGE

13 years

WEIGHT

26.7lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Crystal Hill, RVT

HOSPITAL NAME

Hespeler Animal
Hospital

REFERRING VET

Dr. Bhinder

INVOICE

29409

DATE

3/6/23