



PATIENT

Bailey Smith

SPECIES

Canine

BREED

Shih Tzu

SEX

Male Neutered

AGE

14 years

WEIGHT

6.4kgs

PRESENTING CLINICAL SIGNS

History: Presented on emergency on March 2nd, rapid breathing, could not settle, vomited bile in the morning, not eating. Grade 6/6 systolic heart murmur noted, crackles audible in lungs, cyanotic, open-mouth breathing. Was on pimobendan and meloxicam.

-Abnormal PE/Chem/CBC/UA Results: Hypoxic on room air, pulmonary edema on chest rads. Treated with furosemide and oxygen and butorphanol and improved through the day. Mild increase ALT (145), rest normal. Sent home with furosemide 10mg BID, Fortekor 2.5mg BID, Spironolactone 12.5mg BID, continue with pimobendan. Recheck today - lungs clear, edema has resolved. Grade 5/6 systolic apical murmur, MM pink, no ascites. No coughing.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is markedly thickened with prolapse into the left atrial lumen. A suspect ruptured chord is visualized. There is severe eccentric mitral regurgitation present. The MR velocity is normal. There is moderate to severe left atrial enlargement with a horizontal component. 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. The main pulmonary artery is not significantly dilated. No significant right atrial or ventricular dilation. The tricuspid valve is mildly thickened with mild tricuspid regurgitation. TR velocity is mildly elevated. No pericardial/pleural effusion or cardiac masses are seen. Occasional premature beats is seen throughout the study.

CARDIAC CHART

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Nigel Gumley, DVM

HOSPITAL NAME

Cedarview Animal
Hospital

REFERRING VET

Dr. Gumley

INVOICE

29805

DATE

3/23/23

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	5.4	3.0	NM	1.9	52	85	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	110	0.85	0.62	6.4	2.9	3.1	1.5
*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)

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



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and mild tricuspid regurgitation. A ruptured primary chord is suspected, which is the likely cause of recent decompensation. Significant left atrial and ventricular enlargement indicates the risk for spontaneous congestive heart failure is elevated. Early pulmonary hypertension is also noted, which is likely secondary. No additional issues are noted at this time. Occasional premature beats are appreciated throughout the study and a screening ECG is recommended.

These findings would support the recent diagnosis of CHF and continued full cardiac support is recommended as below. The average survival of canine patients at this stage is 8-9 months on medications, however they generally are able to maintain a good quality of life. Going forward the risk will remain high for recurrent CHF, development of arrhythmias and sudden death, and close monitoring is 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, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home. Elected anesthesia is not advised.

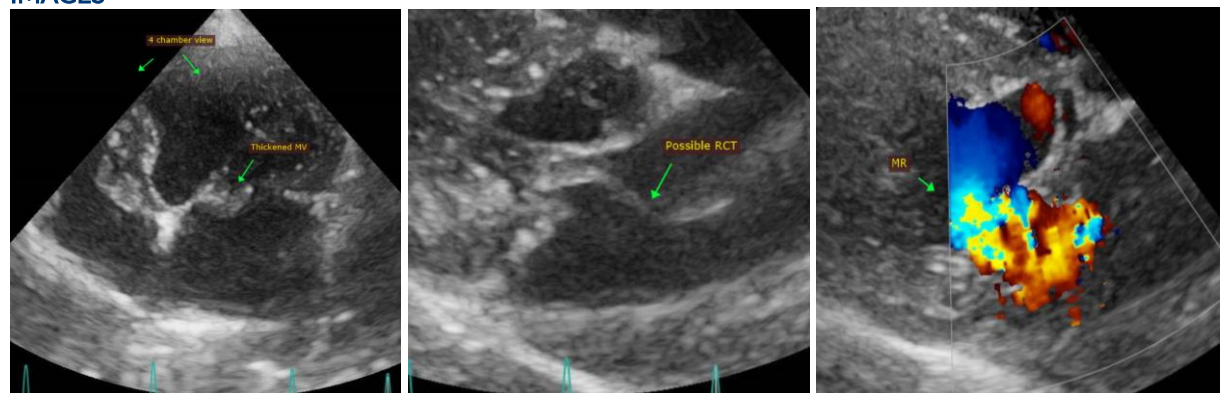
PLAN

Baseline BP and ECG are recommended. Continue furosemide 1-2mg/kg PO q12h. Continue Pimobendan 0.3mg/kg PO q12 hours. Continue spironolactone 1-2mg/kg PO q12h. Continue ACE-I 0.5mg/kg PO q12h, pending BP assessment.

Monitoring 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





PATIENT

Bailey Smith

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

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

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