



PATIENT

Rosco Carlson

SPECIES

Canine

BREED

Chihuahua

SEX

Male Neutered

AGE

9 years

WEIGHT

8.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Emily Kalenius, DVM

HOSPITAL NAME

Wilvet Salem

REFERRING VET

Dr. Kalenius

INVOICE

27346

DATE

11/8/22

PRESENTING CLINICAL SIGNS

History: Summer of 2022 diagnosed with tracheal collapse and a heart murmur and started on Furosemide 12.5mg po BID, Pimobendan 1.25mg BID - 1/3 of a 3.75mg compounded tablet po BID, Enalapril 2.5mg po SID. History from 06/2022 - Crea 1.1 BUN 23 - weight 9.34lb in July - now 8.5lb Seen on 11/5 at Salem ER for difficulty breathing and coughing spells. Transferred on 11/7 from Salem ER for lethargy, not eating, tachypnea. Rads showed cardiomegaly and suspect perihilar pulmonary edema. Stabilized with oxygen and injectable Lasix. Overnight, transitioned to oral meds and Weaned of oxygen, currently on room air.

-Abnormal PE/Chem/CBC/UA Results: S/O: QAR, light pink mm, mod dental disease, clear corneas OU, grade 5-6/6 left systolic murmur, harsh lung sounds right hemithorax, clear left thorax, normal respiratory effort, mild tachypnea, abdomen soft and nonpainful, Lab/trends: 11/6 - BUN 51, Creat 1.5, K 3.3 PCV 52%, T.S. 7.0 g/dl 11/7-11/8 Recheck EPOC - pH 7.566*, BE -1.2, Na 141, K 3.2*, Cl 109, Ca 1.01*, Lact 1.16, BUN 43*, Creat 1, Glu 109, HCT 46% PCV 48%, TS 7.4 g/dL

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is marked thickened with significant prolapse into the left atrial lumen. There is marked eccentric mitral regurgitation present. The MR velocity is low normal. There is marked left atrial enlargement. There is moderate left ventricular dilation. Left ventricular systolic function is hyperdynamic. There is normal systolic flow velocity across the aortic valve, velocity normal. The aortic valve appears trileaflet with normal mobility. No aortic insufficiency. The main pulmonary artery is prominent. Mild right atrial and right ventricular dilation. The tricuspid valve is thickened with trace tricuspid regurgitation. Mild aortic insufficiency, no PI. 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	2.9	2.9	48	80	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	240	1.7	0.9	3.85	3.5	3.6	1.9
*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



PATIENT

Rosco Carlson

SPECIES

Canine

BREED

Chihuahua

SEX

Male Neutered

AGE

9 years

WEIGHT

8.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Emily Kalenius, DVM

HOSPITAL NAME

Wilvet Salem

REFERRING VET

Dr. Kalenius

INVOICE

27346

DATE

11/8/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is chronic degenerative valve disease causing marked mitral and trace tricuspid regurgitation. Marked left atrial and ventricular enlargement indicates the risk for spontaneous congestive heart failure is elevated. Continued full cardiac support is recommended at this time as below, given the history and severity of disease seen here. Mild aortic insufficiency is noted, and a baseline BP is recommended.

Pending response to current medications, cough suppression (up to q4-6 hours) may also be helpful for QOL. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF at home.

The average survival of canine patients with this severity of disease and concern for CHF is <6 months on medications; however, they generally are able to maintain a good quality of life. Going forward the risk will remain high for CHF, development of arrhythmias/syncope and 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, exercise intolerance or collapse episodes.

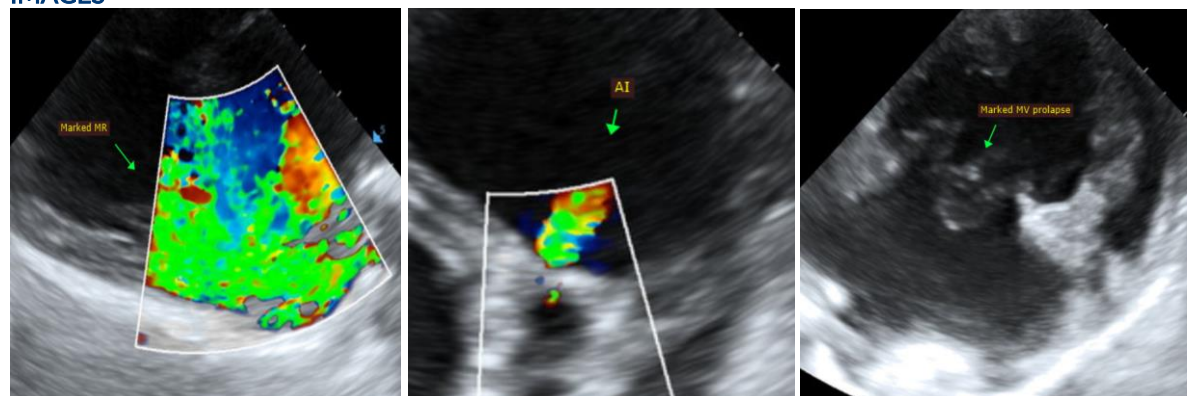
PLAN

Continue oral Lasix at 1-2mg/kg PO q12h. Continue Pimobendan 0.3mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h. If indicated, consider hydrocodone with homatropine, 0.2-0.4mg/kg PO up to q4-6 hours PRN.

Monitor renal panel and BP every 3-4 months going forward. Once BP is documented >130mmHg, institute ACE-I 0.5mg/kg PO q12h.

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

IMAGES





PATIENT

Rosco Carlson

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

Chihuahua

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

SEX

Male Neutered

AGE

9 years

WEIGHT

8.5lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Emily Kalenius, DVM

HOSPITAL NAME

Wilvet Salem

REFERRING VET

Dr. Kalenius

INVOICE

27346

DATE

11/8/22