



PATIENT

Hugo Gopalratnam

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Male Neutered

AGE

14 years

WEIGHT

NP

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kim Liedberg

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Grewal

INVOICE

28394

DATE

1/17/22

PRESENTING CLINICAL SIGNS

History: Grade 5/6 heart murmur. Coughing.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is thickened with mild prolapse into the left atrial lumen. There is severe eccentric mitral regurgitation present. The MR velocity is normal. There is marked left atrial enlargement. There is mild left ventricular dilation and increased sphericity indicative of volume overload. Left ventricular systolic function is hyperdynamic. There is normal flow across the aortic valve. The aortic valve appears trileaflet with normal mobility. No AI. The main pulmonary artery is mildly dilated. Normal pulmonic outflow velocity with laminar profile. Trivial pulmonic insufficiency. Moderate right atrial and right ventricular dilation. The tricuspid valve is thickened and prolapsing with moderate tricuspid regurgitation. The TR velocity is elevated. Scant pericardial effusion. No obvious pleural effusion. No 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	5.4	4.5	1.9	2.2	46	79	0.15
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	175	1.6	0.8	NP	3.0	3.5	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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing severe mitral and moderate tricuspid regurgitation. Biatrial and ventricular enlargement in addition to severe MR/TR and pulmonary hypertension indicates the risk for spontaneous congestive heart failure is high. Scant pericardial effusion is concerning for early right-sided congestion, and **full cardiac support is recommended, including sildenafil therapy**. If the patient appears unstable, highly recommend overnight hospitalization for supportive care at a 24-hour facility. Additionally cough suppression may be useful in the face of normal breathing rates in the future.

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Unfortunately, with this degree of heart disease and congestion, the prognosis is guarded to poor with an average survival time of 6-12mo at this point. Most dogs are able to maintain a good quality of life for some time however with medications. Going forward, patient will remain at high risk for recurrent CHF (left or right sided), collapse episodes and/or development of malignant arrhythmias/sudden death in the future.

SPECIES

Canine

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit once stabilized. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for improvement/recurrent CHF at home.

BREED

Chihuahua Mix

PLAN

Hospitalization if indicated. Institute sildenafil 1-2mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h. Administer Pimobendan 0.3mg/kg PO q12h. Institute Furosemide 1-2mg/kg PO q12h. Hydrocodone as needed for cough suppression.

SEX

Male Neutered

Recheck a kidney panel and BP in 10-14 days, then every 3-4 months. If BP is >130mmHg and patient doing well, institute ACE-I 0.5 mg/kg PO q12h.

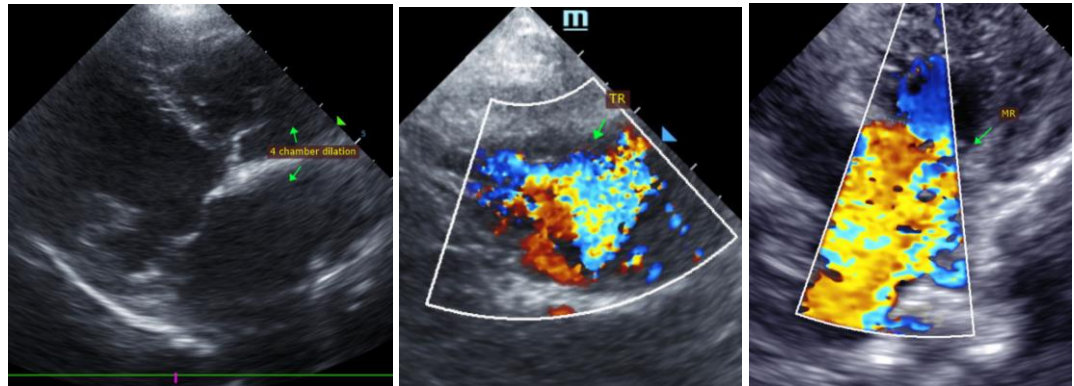
AGE

14 years

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

WEIGHT

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IMAGES**INTERPRETED BY**

Maggie Machen Lamy,
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(Cardiology)

IMAGING PERFORMED BY

Kim Liedberg

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.

HOSPITAL NAME

SVS Imaging WI

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.

REFERRING VET

Dr. Grewal

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

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