



**PATIENT**

Truman Snavely

**SPECIES**

Canine

**BREED**

Cockapoo

**SEX**

Male Neutered

**AGE**

8 years

**WEIGHT**

34.4lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Kim Liedberg

**HOSPITAL NAME**

SVS Imaging WI

**REFERRING VET**

Dr. Goertz

**INVOICE**

27389

**DATE**

11/9/22

**PRESENTING CLINICAL SIGNS**

History: Presented with decreased energy and not wanting to play. Drinks and eats normal and urination and defecation normal. He is on a grain free diet due to allergies. History of concerns with ears, perianal area/anal glands which resolved with grain free diet. Grade 2/6 systolic heart murmur was noted with no pulse deficits. Butorphanol was given for sedation.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Moderate eccentric mitral regurgitation with moderate left atrial dilation. Normal MR velocity. Increased LV diameter with increased sphericity. Moderate systolic dysfunction. The tricuspid valve appears normal with trivial tricuspid regurgitation. Velocity consistent with early pulmonary hypertension. Normal right atrial and ventricular diameter and morphology. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and mildly elevated aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

**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	5.2	3.0	1.5	1.8	20	36	1.3
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	NM	1.5	1.4	15.6	3.1	4.9	3.9
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				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 moderate mitral and trivial tricuspid regurgitation. Moderate left atrial enlargement indicates there may be risk for progression to spontaneous congestive heart failure in the future. Of great concern, there is evidence of moderate systolic dysfunction, which in light of the diet and breed predisposition is concerning for concurrent cardiomyopathy. If possible, recommend change to a more standard option going forward in addition to supplementing taurine. Finally, mild pulmonary hypertension is noted, which should be monitored going forward.

**PATIENT**

Truman Snavely

Assessment of progression in the future will help predict long term prognosis, however given degree of LA dilation is guarded at this stage (B2). There findings may or may not be related to recent exercise intolerance and may improve on Pimobendan therapy. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for progression at home.

**SPECIES**

Canine

Given the risk for progression and results of the EPIC study, Pimobendan is indicated in this patient as below. Once on the medication for 3-5 days, anesthetic risk is considered mildly elevated however cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso/sevoflurane 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.

**BREED**

Cockapoo

**SEX**

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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.

**AGE**

8 years

**PLAN**

Consider diet change as discussed. Screening BP recommend; if >150mmHg consider institution of an ACEI 0.5mg/kg PO q12h. Institute heart muscle support Pimobendan 0.3mg/kg PO q12h. Institute Taurine 1000mg PO q12h.

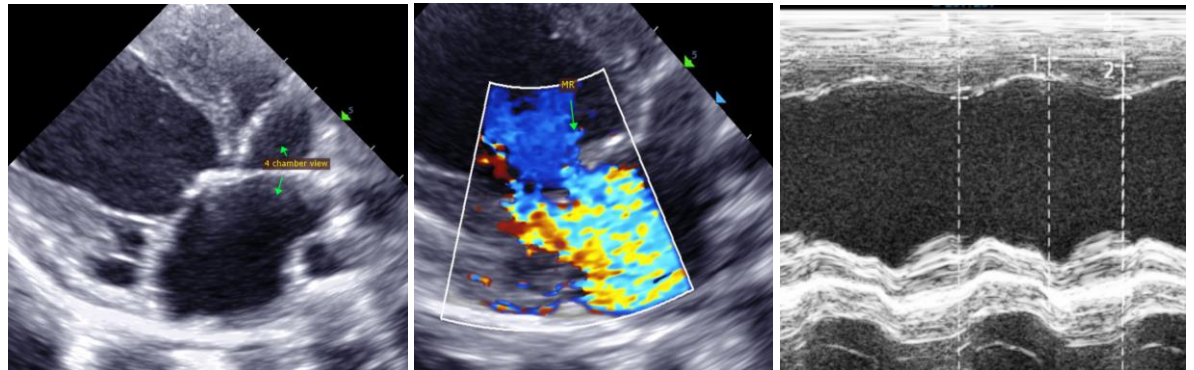
**WEIGHT**

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

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**IMAGES****IMAGING PERFORMED BY**

Kim Liedberg

**HOSPITAL NAME**

SVS Imaging WI

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.

**REFERRING VET**

Dr. Goertz

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.

**INVOICE**

27389

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