



**PATIENT**

Pip Alexander

**PRESENTING CLINICAL SIGNS**

History: Worsening cough – more during exercise or excitement. Grade 5/6 heart murmur. Tachypnea, crackles on right.

**SPECIES**

Canine

**RADIOGRAPHIC FINDINGS** \*NOTE: Images submitted for supplemental cardiac information only. Cardiomegaly. Concern for early CHF.

**BREED**

Schnauzer

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, and doppler imaging is available. Diffuse thickening of mitral valve leaflets with prolapse into the left atrial lumen. Mitral regurgitation with severe left atrial dilation. Mild LV dilation with mildly depressed myocardial function. The tricuspid valve appears normal, with TR. Normal velocity. Mild right heart enlargement. The pulmonic and aortic valves are normal in morphology and mobility. Normal aortic and pulmonic outflow velocities with laminar flow. No pericardial or pleural effusion noted. No obvious cardiac masses.

**SEX**

Male

**CARDIAC CHART**

**AGE**

10 years

**WEIGHT**

18.2lbs

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	2.7	NM	2.2	27	53	0.5
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	0.8	0.6	8.3	3.2	4.6	3.3
*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)

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Sang K Han, DVM

**HOSPITAL NAME**

Oso Pet Care Center

**REFERRING VET**

Dr. Han

**INVOICE**

24817

**DATE**

6/15/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the murmur is chronic degenerative valve disease causing mitral and tricuspid regurgitation. Severe left atrial enlargement indicates the risk for spontaneous congestive heart failure is elevated. No additional issues are identified.

In light of the clinical signs, chest radiograph findings and severity of disease on echocardiogram, the diagnosis is congestive heart failure and medications are warranted lifelong as below. Monitoring of sleeping respiratory rates will be paramount to screen for congestive heart failure at home. Cough suppression to improve QOL can also be considered (hydrocodone, 0.2-



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0.4mg/kg up to q4-6h PRN) for any residual mechanical cough in the face of normal sleeping respiratory rates. The average survival time of canine patients with active pulmonary edema is 8-9 months on medications, however they generally are able to maintain a good quality of life for that period. Patient will always be at risk for recurrent CHF, development of arrhythmias/LA tear, syncope and/or sudden death in the future.

**SPECIES**

Canine

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for acute progression of the cough, labored breathing, exercise intolerance or collapse episodes in the future.

**BREED**

Schnauzer

**PLAN**

Institute Pimobendan 0.3mg/kg PO q12h. Institute Furosemide 1-2mg/kg PO q12h. Institute spironolactone 1-2mg/kg PO q12h.

**SEX**

Male

Monitor SRRs at home. Monitor renal values and BP in 10-14 days, then every 3-4 months while on diuretics. If doing well and BP >130mmHg, institute ACEI 0.5mg/kg PO q12h. Consider hydrocodone if needed for QOL.

**AGE**

10 years

Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of associated clinical signs occurs in the interim.

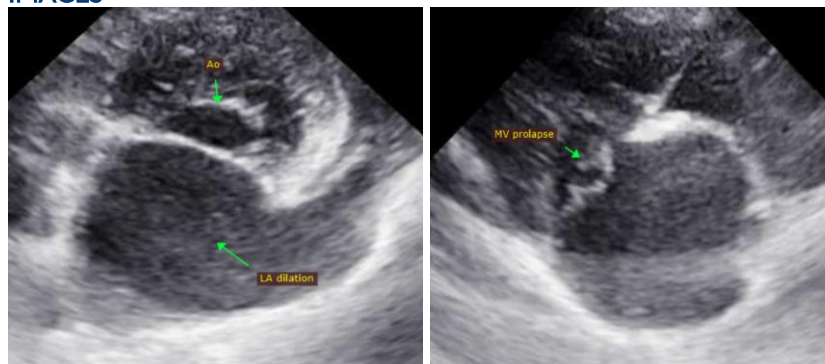
**WEIGHT**

18.2lbs

**IMAGES**

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)



**IMAGING PERFORMED BY**

Sang K Han, DVM

**HOSPITAL NAME**

Oso Pet Care Center

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. Han

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.

**INVOICE**

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**DATE**

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