



PATIENT

Kiska Hansen

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

14 years

WEIGHT

11.7lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

C. Belan, DVM

HOSPITAL NAME

South Pointe
Veterinary Clinic

REFERRING VET

Dr. James

INVOICE

21308

DATE

9/30/21

PRESENTING CLINICAL SIGNS

History: Murmur 5/6. Assess prior to dental. Patient was dyspneic during exam and a few breaks were taken to prevent cardiovascular compromise.

-Current medications: Pimobendan and furosemide.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with significant prolapse into the left atrial lumen. Moderate to severe eccentric mitral regurgitation with moderate left atrial dilation. Normal MR velocity. Mildly increased LV diameter with hyperdynamic myocardial function. The tricuspid valve appears subjectively normal, with trace tricuspid regurgitation. Normal right atrial and ventricular diameter. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

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	5.6	NM	1.8	1.9	62	92	0.3
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	190	1.3	1.1	5.3	2.6	2.9	1.1
*Normal chamber parameters expressed as a mean value (SD)							
BODY WEIGHT DEPENDENT PARAMETERS							
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>							
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							
	3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)			
	5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)			
	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 to severe mitral and trace tricuspid regurgitation. Moderate left atrial enlargement indicates there is risk for progression to spontaneous congestive heart failure in the future. No additional issues are identified.

Given the risk for progression and results of the EPIC trial, continued Pimobendan is indicated in this patient as below. **The patient is on Lasix and dyspnea was noted during the exam.** If the patient has clinical signs (currently or previously) of congestive heart failure, this should certainly be continued, in addition to full cardiac support. If CHF has not been documented, Lasix is likely



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unnecessary and should be discontinued. This breed is highly predisposed to underlying airway disease and this should also be considered as a contributing factor (ie Lasix is unnecessary in this case). **Chest radiographs are strongly recommended.**

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Assessment of progression in the future will help predict long term outcome, however prognosis is guarded at this stage (B2).

BREED

Shih Tzu

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.

SEX

Female Spayed

Anesthesia should be postponed pending further evaluation. If the patient is or was in CHF, anesthesia becomes high risk and should be avoided if possible.

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PLAN
Baseline BP recommended. Continue Pimobendan 0.25-0.3mg/kg PO q12h. Use of Lasix should be dictated by historical and/or current signs for CHF. Chest radiographs are strongly recommended. If CHF is or was suspected, continue Lasix 1-2mg/kg PO q12h with institution of an ACE-I as well. If CHF is not present, Lasix should be discontinued, and primary respiratory disease evaluated.

WEIGHT

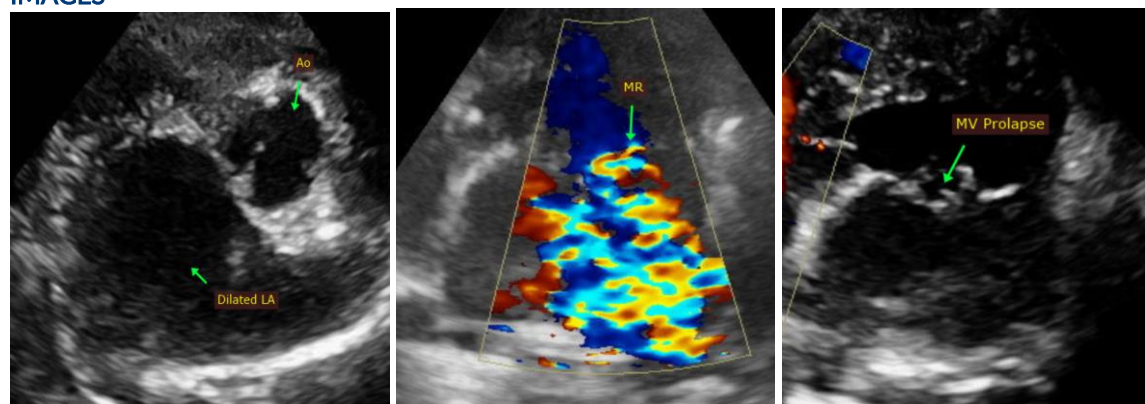
11.7lbs

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

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IMAGES



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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.

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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.

DATE

9/30/21

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