



PATIENT

Henry Winston Shiebley

SPECIES

Canine

BREED

Chihuahua

SEX

MN

AGE

2012

WEIGHT

14.5lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Kerr

INVOICE

24100

DATE

5/9/22

PRESENTING CLINICAL SIGNS

History: Henry Winston presented to EVH for additional workup regarding elevated liver values and worsening heart murmur as noted by ER. He was seen at ER for a grand mal seizure and was started on levetiracetam. There have been no additional seizure events since the ER visit on 4/29 - 4/30. Physical exam was largely unremarkable, with no residual neurologic deficits. He historically has had a grade 2-3/6 systolic murmur which has increased to a 4/6 at this time. The owner reports that Henry Winston has had a few episodes of diarrhea after his visit to the emergency hospital
 Pertinent abnormal PE/Chem/CBC/UA Results: PCV/TS 51% and 7.2, serum clear, CBC-WNL, CHEM-ALT 221, ALP >2000, Electrolytes- Sodium 149, Potassium 3.8, Cl 110, NH3- 0
 Current medications: Levetiracetam soln 100 mg/mL 1.5 mL PO q8h, Provable forte
 Blood pressure: Blood pressure-110mmHg
 Sedation used: Not required to complete full diagnostic ultrasound.
 Pertinent previous ultrasound results: No previous.
 STAT: Not requested
 Imaging performed by: Andi Parkinson, RDMS.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with significant prolapse into the left atrial lumen. There is moderate eccentric mitral regurgitation present. The MR velocity is normal. There is moderate left atrial enlargement. There is borderline left ventricular dilation. Left ventricular systolic function is hyperdynamic. No right atrial or ventricular dilation (subjective). Mild thickening of the tricuspid valve with no TR. No obvious PAH. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. Mild AI; no PI. The main pulmonary artery is normal in diameter. The pulmonic valve is normal in appearance. 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	5.4	NA	NM	1.8	31	60	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	165	1.2	0.9	6.6	2.3	2.8	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)
<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)

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral regurgitation. Moderate left atrial enlargement indicates there is relatively low risk for imminent complication, however risk for progression to spontaneous congestive heart failure in the future is elevated. A small aortic leak is noted, and lifelong BP monitoring is advised (normal to low on exam). No additional issues are identified.

Given the risk for progression and results of the EPIC trial, Pimobendan is indicated in this patient as below. Assessment of progression in the future will help predict long term outcome; however, prognosis is guarded at this stage (B2).

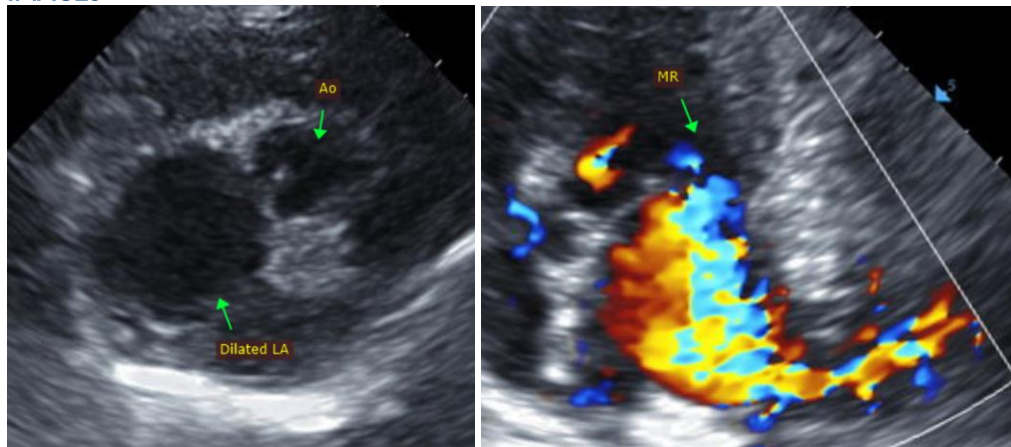
Omega fatty acid supplementation and mild salt restriction may also be of some long term benefit. Monitor for development of a progressive cough, labored breathing, exercise intolerance or collapse episodes.

Once on the medication for 3-5 days, anesthetic risk is considered mildly elevated. Cardiac protective drug choices (opioid/benzodiazepine premedication, Propofol or alfaxalone induction, iso or sevo 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.

Plan: Baseline BP recommended every 6mo. Institute heart muscle support Pimobendan 0.25-0.3mg/kg PO q12h.

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

IMAGES



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.

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.

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