



PATIENT

Cassie Miner

PRESENTING CLINICAL SIGNS

History: Having "events": undefined seizure v syncope. New grade 4/6 systolic murmur. Sedated with Butorphanol.

SPECIES

Canine

BREED

Maltese Mix

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with mild prolapse into the left atrial lumen. Moderate to severe eccentric mitral regurgitation with moderate left atrial dilation. Borderline LV dilation with adequate myocardial function. The tricuspid valve appears thickened with mild tricuspid regurgitation. Velocity consistent with mild to moderate pulmonary hypertension. Mild right heart enlargement. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic and trace pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

SEX

Female Spayed

CARDIAC CHART

AGE

15 years

WEIGHT

19.2lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Rachel Runnels, RVT

HOSPITAL NAME

SVS Imaging KC

REFERRING VET

Dr. Mervin

INVOICE

26255

DATE

9/8/22

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	6.4	3.4	1.8	1.75	53	85	0.2
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	112	1.2	0.76	8.7	2.3	3.1	1.5
*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 moderate to severe mitral and mild tricuspid regurgitation. Moderate left atrial enlargement indicates current relative stability with risk for progression to spontaneous congestive heart failure in the future. There is also TR with evidence of mild to moderate pulmonary hypertension appreciated. No additional issues are noted at this time.

Given these findings, it is responsible to institute Pimobendan given the degree of disease and risk for progression.

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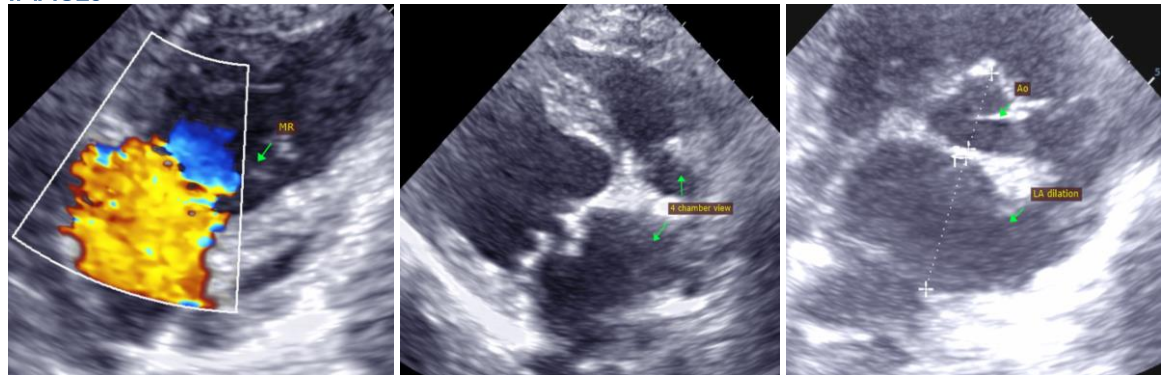
No definitive cardiac cause for the episodes is seen in this study (i.e. no severe PAH, no obvious rupture or tears, reasonable cardiac output, etc.) and other causes should be considered. The first important delineation is cardiogenic syncope versus seizure, with the hallmark of syncope being of short duration and normal mentation immediately prior to and following the episode. If syncope is more likely pending further historical information, these possible causes include vasovagal events, intermittent arrhythmias, etc. That being said, if the episodes are occurring with significant exertion there certainly is a possibility that regurgitant volume is involved and Pimobendan may help. A baseline BP and ECG should be obtained. An intermittent arrhythmia cannot be ruled out without a Holter monitor, and this should be considered if episodes continue undiagnosed. Further systemic evaluation may also be considered including AUS. If seizures are more likely pending historical information, full neurologic evaluation is recommended.

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.

PLAN

Baseline BP and ECG are recommended. Institute Pimobendan 0.25-0.3mg/kg BID. Consider further evaluation as discussed.

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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

Maggie Machen Lamy, DVM
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