



PATIENT

Mitzi Duwenhoeffer

SPECIES

Canine

BREED

Poodle Mix

SEX

Female Spayed

AGE

10 years

WEIGHT

6.8kgs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Melissa Weisman, DVM

HOSPITAL NAME

Minnesota Veterinary
Ultrasound

REFERRING VET

Dr. Weisman

INVOICE

29815

DATE

3/23/23

PRESENTING CLINICAL SIGNS

History: Presented 3-7-23 for a seizure-like episode. On PE her murmur had progressed from a III to a VI/VI. Panting increased with exercise intolerance. Globoid heart on CXR without evidence of CHF. Between the initial evaluation and the echocardiogram, the patient has >10 syncopal episodes. The patient is having multiple syncopal episodes at home. Previous echo done by MVU.
-Abnormal PE/Chem/CBC/UA Results (10/22): Mild BUN elevation.
Pertinent previous echo findings (MVU 1/2022): CVD B1, no RHE

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Mild cardiomegaly with possible right-sided enlargement. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. There is moderate eccentric mitral regurgitation present. There is moderate left atrial enlargement. Mild left ventricular dilation with hyperdynamic function. Subtle septal flattening at end-systole. There is normal systolic flow velocity across the aortic valve, no insufficiency. The aortic valve appears normal. Mild right atrial/ventricular enlargement. The tricuspid valve is mildly thickened with moderate tricuspid regurgitation. The tricuspid regurgitant velocity is consistent with moderate pulmonary hypertension. The pulmonary artery and pulmonic valve are normal. No AI or PI. 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	5.8	3.4	NM	1.7	64	92	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	NM	1.0	0.6	6.8	2.6	3.4	1.3
*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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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)

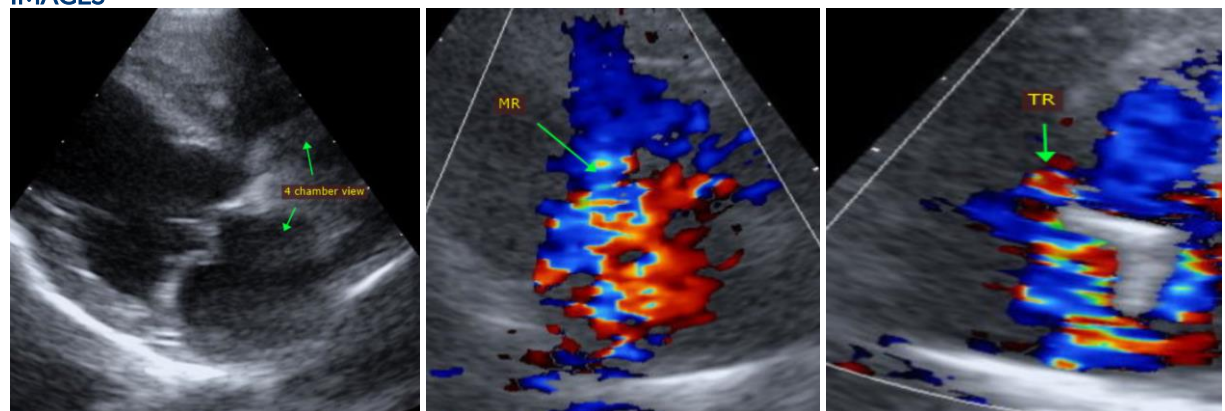
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral and tricuspid regurgitation. Compared to the prior study there is evidence of progression from mild to moderate disease.



PATIENT	Mitzi Duwenhoeffer	Moderate left atrial enlargement indicates there may be elevated risk for spontaneous congestive heart failure in the future. Additionally moderate pulmonary hypertension is also identified, with right heart enlargement. Given the combination of findings, recommend institute Pimobendan and Sildenafil at this time in this patient as below. Cause for PAH remains open in this case without a chronic history of a cough/respiratory disease.
SPECIES	Canine	
BREED	Poodle Mix	Syncope (assuming the symptom is exertional in nature), is likely to be cardiogenic in origin secondary to pulmonary hypertension. If the episodes continue despite prescribed therapy, consider alternative explanations such as blood pressure swings, intermittent arrhythmias, etc. The latter is unlikely in this signalment; however, cannot be entirely ruled out.
SEX	Female Spayed	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	10 years	Elective anesthesia is not advised.
WEIGHT	6.8kgs	PLAN Institute heart muscle support Pimobendan 0.25-0.3mg/kg PO BID. Institute Sildenafil 1-2mg/kg PO q8h.
INTERPRETED BY	Maggie Machen Lamy, DVM, DACVIM (Cardiology)	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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