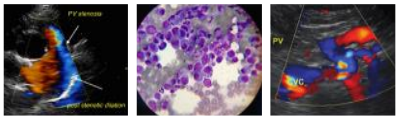
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Holly Gaigler

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

2010

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Happy Tails Veterinary Hospital

REFERRING VET

Dr. Calpeno

INVOICE

21302

DATE

9/30/21

PRESENTING CLINICAL SIGNS

History: Patient has been anorexic for 2d and owner unable to give Trilostane medication since she is not eating. She also has not been coughing but her breathing has increased. Owner is concerned with her condition. Evaluated her at home briefly. Inc respiratory effort at rest, mild dehydration mm pp/tacky crt<2s, thoracic auscultation crackles present, murmur grade II/VI systolic and most prominent over MV. QAR attitude. abdomen tense on palpation. protruding slightly abdominal rotund and potbelly abdomen. overall BCS 3.5 however distended abdomen makes appearance 4.5/9, very ribby and bone prominent. RR >35/min.
-Current medications: Hemp oil bid, Antronex 1t BID, Denamarin 1/2T BID, Ursodiol 150mg
-Pertinent previous ultrasound results (3/15/18 MML): Trace TR; respiratory signs noted at that time, suspect airway disease.
-STAT: Not requested.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The average heart rate is 120bpm (range 68-150bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is positive with normal dimension. MEA is normal. No ectopic beats, pauses or dysrhythmias.
ECG diagnosis: Normal sinus rhythm with respiratory variation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Normal mitral valve structure and function with no obvious prolapse into the left atrial lumen. Trace mitral regurgitation. Normal TR velocity. Normal left atrial dimension. Normal to decreased LV diameter with adequate myocardial function. Suspicion for volume depletion. The tricuspid valve appears mildly thickened with trace/mild TR. Normal velocity. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal LVOT velocity. Trace aortic insufficiency. No pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac tumors 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	5.0	2.0	NM	1.3	33	65	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	1.2	5.9	1.8	1.76	1.2
*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)

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

Overtly normal cardiac structure and function persist. Trace mitral and tricuspid regurgitation are hemodynamically insignificant, these may reflect early valve disease or may be physiologic in origin. Follow up is advised. The overall cardiac appearance suggests volume depletion and **lab work is strongly recommended**, in addition to a baseline blood pressure. No additional issues are noted in this study.

The ECG shows a respiratory sinus arrhythmia which is a normal finding. This is likely exacerbated by current clinical issues and potential for respiratory disease. These findings make the respiratory signs noncardiac in origin. Continued work up for lower airway disease (infectious/inflammatory exacerbation, etc.) is recommended. Consider hydrocodone for cough suppression, course of Baytril, etc. Also, may consider TTW/BAL for further information.

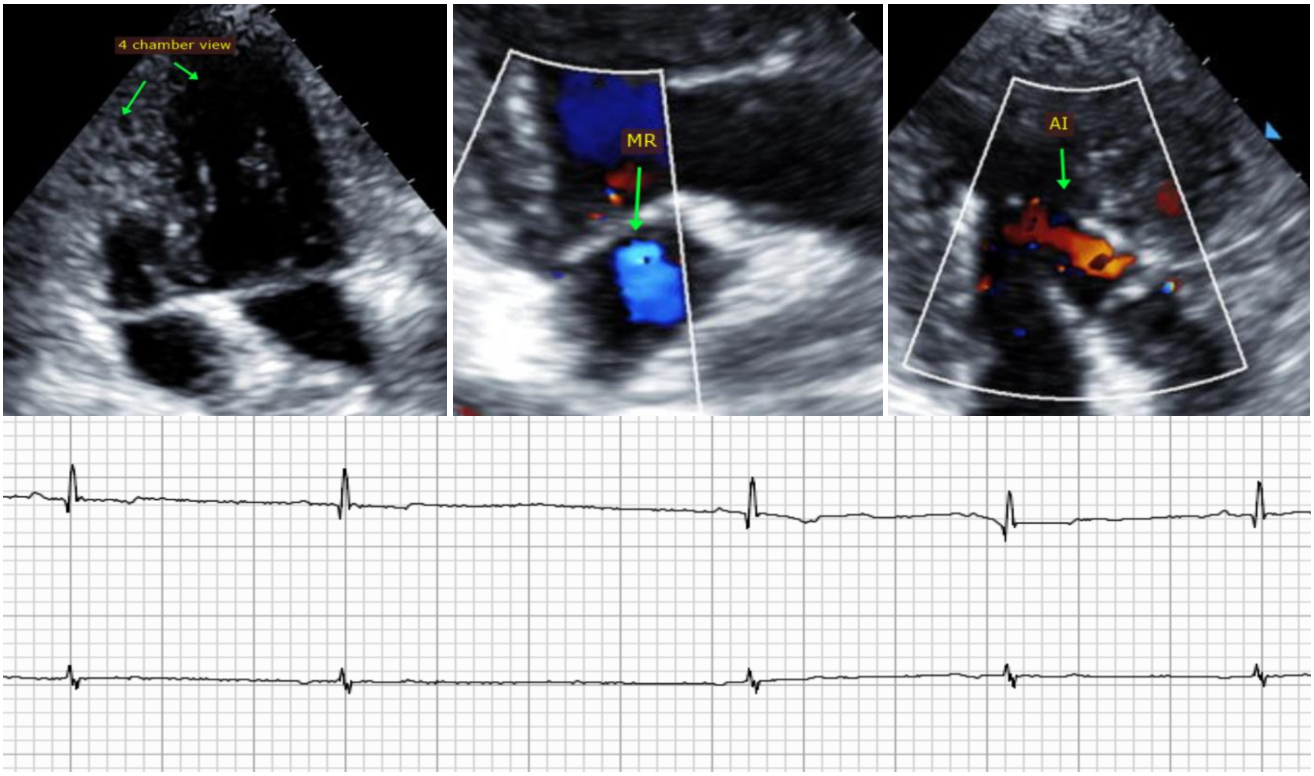
Chronic respiratory issues can lead to pulmonary hypertension if poorly controlled and a recheck echocardiogram is recommended should any exertional syncope/dyspnea occur. No cardiac indication for medications is seen.

PLAN

Baseline lab work and BP is recommended ASAP. Further respiratory evaluation/treatment as discussed.

A recheck echocardiogram is indicated in 1 year to screen for development of progressive disease.

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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com