


PATIENT

Ollie Shuttle

PRESENTING CLINICAL SIGNS

History: Previously dx with CVD and mild PAH (report not included). Possible syncope 2 weeks ago; 30s duration, suddenly off balance and whining. Quiet afterwards. Heart murmur, grade 3/6.

SPECIES

Canine

-Abnormal lab results: CBC/biochemistry SDMA 22 (0 - 14 ug/dL) Creatinine 147 (44 - 133 umol/L) Urea (BUN) 22.9 (3.2 - 11.0 mmol/L) Amylase 1684 (337 - 1469 IU/L) Lipase 821 (0 - 250 IU/L) Spec cPL 700 (0 - 200 ug/L).

-Pertinent previous echo findings: mod/severe TR, mild RHE, no MR/LHE

BREED

Poodle Mix

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 50mm/s, 20mm/mV. The average heart rate is 120bpm (range 107-150bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. No ectopic beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with respiratory variation.

AGE

15 years

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with no left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with septal prolapse and mild tricuspid regurgitation. Velocity consistent with normal pulmonary pressures; however, mild pulmonary hypertension suspected. Prominent right heart. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

WEIGHT

8.6lbs

INTERPRETED BY

 Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

CARDIAC CHART
IMAGING PERFORMED BY

Kelly Reschny, RVT

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	NA	2.0	1.0	1.1	51	85	0.1
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	140	1.0	0.96	3.9	1.3	2.0	1.0
*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)

 Adapted from June Boon, Veterinary Echocardiography, 1998
 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435

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24924

DATE

6/22/22



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Hansson et al, Vet Rad and Ultrasound 2002	35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995	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)

SPECIES
Canine

BREED
Poodle Mix

SEX
Male Neutered

AGE
15 years

WEIGHT
8.6lbs

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Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY
Kelly Reschny, RVT

HOSPITAL NAME
Graham Animal
Hospital

REFERRING VET
Dr. Lukacs

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing mild tricuspid regurgitation. Lack of significant right atrial enlargement indicates the current risk for complication is low. Early pulmonary hypertension is suspected with mild right heart enlargement. This is unexpected without chronic respiratory signs, and monitoring for progression is advised. No additional issues are noted in this study and the ECG is unremarkable.

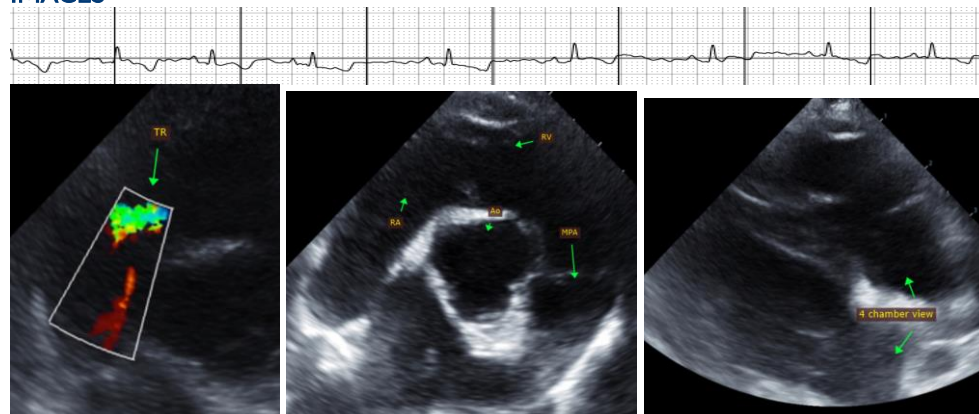
These findings are discordant with the prior report, which suggested severe TR. Regardless, what is seen here is relatively mild and would suggest structural disease is not the cause of the recent episode. While syncope can certainly be a sign of pulmonary hypertension, this is unexpected prior to severe pressure elevation. Other possibilities should be considered including an intermittent arrhythmia (screening ECG normal), blood pressure swings such as an adrenal tumor, vaso-vagal event, etc. Full systemic evaluation is advised in this senior dog.

In a dog without significant atrial enlargement, no cardiac medications are clearly indicated. Assessment of progression in the future will help predict long term prognosis, which is highly variable at this stage (B1). Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

Anesthetic risk is considered mild if needed. Cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, isoflurane gas) are recommended. Pre-oxygenate for 5-10 minutes prior to induction. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Mild IV fluid restriction is recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

IMAGES





PATIENT

Ollie Shuttle

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.

SPECIES

Canine

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.

BREED

Poodle Mix

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

SEX

Male Neutered

AGE

15 years

WEIGHT

8.6lbs

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