



PATIENT

Castial O'Leary

SPECIES

Canine

BREED

Boxer

SEX

Female Spayed

AGE

13 years

WEIGHT

66.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

Snelgrove Veterinary
Services

REFERRING VET

Dr. Gunsinger

INVOICE

28539

DATE

1/24/23

PRESENTING CLINICAL SIGNS

History: Had a seizure-like episode Jan 12, her legs went rigid, and she lost control of her bowels and urinated and then fell over to the ground shaking and panting. Less than a week later she had another episode of weak hind legs, falling to the ground and rigid extremities. Arrythmia present with premature beats on auscultation. At this time, she also had anisocoria, which has remained. Has been on Rheumocam. No heart murmur. HR 132 RR 36
-Abnormal PE/Chem/CBC/UA Results: Slight increase in ALT and Lipase.

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

A brief single lead ECG is available; 142, 25mm/s, 10mm/mV. The average heart rate is 140bpm (range 120-166bpm). The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive and low voltage. A single VPC is identified. No supraventricular ectopic beats, pauses or other dysrhythmias observed. ECG diagnosis: Normal sinus rhythm with respiratory variation and a single VPC.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Trace central mitral regurgitation with no left atrial dilation. Normal LV diameter with adequate myocardial function. The tricuspid valve appears normal with no tricuspid regurgitation. 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 pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	NA	NA	1.2	1.2	35	68	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	140	1.5	1.5	30.0	2.3	4.3	2.8
*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)

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



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	50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. No significant valvular leaks are visualized, and no evidence of pulmonary hypertension.

BREED

Boxer

Syncope in this breed is always concerning, particularly with VPCs suspected previously. Unfortunately, the submitted ECG is very brief and only shows a single abnormal beat which is certainly not definitive for arrhythmic syncope (although does not rule it out). Intermittent VPCs could also be developing secondary to a neurologic issue, etc. Going forward, options include obtaining an extended tracing for further evaluation (consider hospitalization for continuous monitoring for a period of time), referral to a local Cardiologist for a 6 lead extended tracing, or application of a holter monitor (can be ordered through SonoPath). Based upon the information we have at this point, anti-arrhythmic therapy is not clearly warranted.

SEX

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No obvious cardiac medications are indicated. Monitor at home for any further episodes, cough/labored breathing and/or exercise intolerance.

WEIGHT

66.1lbs

Activity restriction is recommended until further evaluation sought.

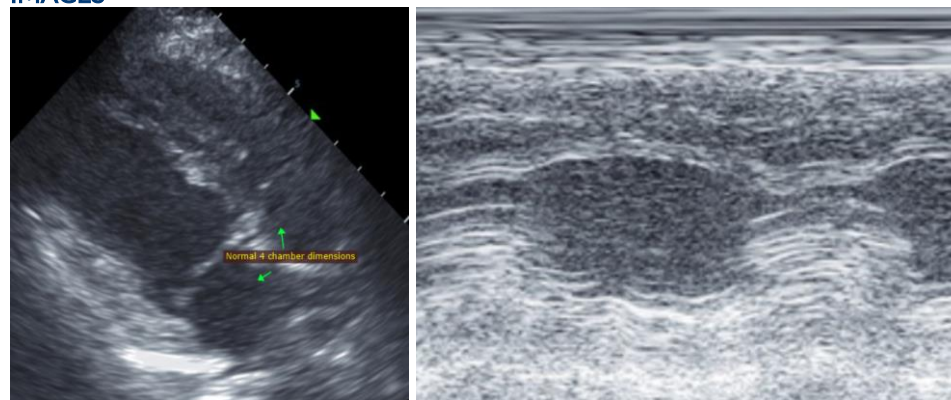
Plan: Consider extended ECG, holter, etc. Consider neurologic evaluation in this case.

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Recheck echocardiogram is recommended in 1 year to screen for development of silent disease.

IMAGES



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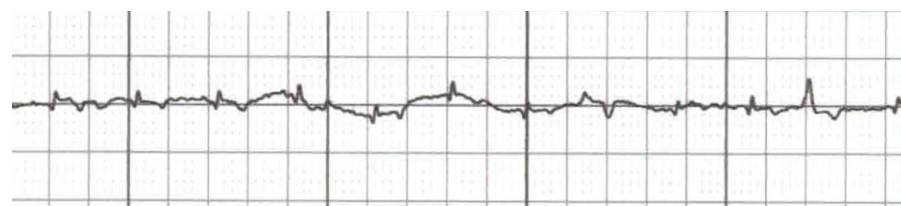
Dr. Gunsinger

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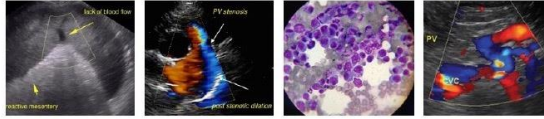
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Single VPC



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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

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Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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