

PATIENT

Lola Sisson

SPECIES

Canine

BREED

Boxer

SEX

Female Spayed

AGE

9 years

WEIGHT

67.4lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Anchor Animal
Hospital

REFERRING VET

Dr. Pietsch

INVOICE

20650

DATE

8/19/21

PRESENTING CLINICAL SIGNS

History: Patient presented for dental cleaning. On exam an irregular arrhythmia was noted. ECG tracing done in-house showed intermittent VPCs. No clinical signs. BP: 180-190mmHg (average)

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; 25mm/s, 10mm/mV. The average heart rate is 140bpm (range is 75-188bpm) The rhythm is largely regular with some respiratory variation. P for every QRS complex and vice versa. P and QRS morphologies are positive. Isolated VPCs throughout. 10 in a two-minute tracing. The VPCs are monomorphic with an LBBB morphology indicative of an RV origin. No supraventricular premature beats, pauses or other dysrhythmias observed.

ECG diagnosis: Normal sinus rhythm with respiratory variation. Isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.

Left ventricle: The LV diameter is normal with adequate myocardial function. LV wall thicknesses are normal.

Left atrium: The left atrium is mildly dilated.

Mitral valve: The mitral valve is normal with no prolapse into the left atrial lumen. Trivial mitral regurgitation.

Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Borderline elevated aortic outflow velocity; laminar flow. No aortic insufficiency.

Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.

Right atrium: Normal RA dimension.

Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.

Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.

Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	1.8
LA diam (cm)	2.5
LA:Ao (Swe)	1.4
IVS thickness (cm)	1.1
LVID diastole (cm)	3.4
PW thickness (cm)	1.2
LVID systole (cm)	2.1
FS (%)	37

Doppler Measurements

PV Vmax (m/s)	1.0
AoV Vmax (m/s)	1.8
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA



PATIENT

Lola Sisson

SPECIES

Canine

BREED

Boxer

SEX

Female Spayed

AGE

9 years

WEIGHT

67.4lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

IMAGING

PERFORMED BY

Pamela Harrigan,
RDCS

HOSPITAL NAME

Anchor Animal
Hospital

REFERRING VET

Dr. Pietsch

INVOICE

20650

DATE

8/19/21

INTERPRETATION OF THE FINDINGS

Overtly normal cardiac structure and function. No significant valve leaks are appreciated, and the systolic function is intact. No additional issues are identified.

Ventricular premature contractions were identified as the cause of the arrhythmia. VPCs are generated from abnormal conductive or fibrotic tissue in the ventricles of the heart muscle, and even frequent single VPCs will often cause no clinical signs in dogs. When sustained however, ventricular tachycardia can lead to symptoms such as lethargy and collapse.

VPCs are a very non-specific finding. They can be primary in origin (such as ARVC), be secondary to significant cardiac disease (not present in this study) or be extra-cardiac in origin, i.e., due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. In this senior Boxer, early ARVC is possible; however, all systemic differentials should be ruled out. An abdominal ultrasound to monitor for any underlying abnormalities, in addition to tick titers and cardiac troponin level can be considered. Unfortunately, there is always an elevated risk for collapse and sudden death in any arrhythmic patient, and even on medications this risk unfortunately still persists.

Based strictly upon the amount of arrhythmia present on the available ECG in this asymptomatic dog, anti-arrhythmic therapy is not clearly indicated. A holter monitor is a reasonable next step to allow monitoring of the rhythm throughout 24 hours of a normal day and help determine if treatment is indicated. Given the asymptomatic status and mild nature of the findings, monitoring at home is also a reasonable approach albeit less conservative. Discussion with the owner is advised.

RECOMMENDATIONS

- In a dog without significant left atrial enlargement, no cardiac medications are clearly indicated.
- Consider a holter monitor as discussed.
- Fish oil supplementation is recommended for dogs with arrhythmias (500-1000mg of omega 3 and 6 once to twice daily).
- If a holter monitor is elected, this will dictate whether therapy is needed and follow up protocol. Otherwise monitor at home for collapse, exercise intolerance, and/or lethargy.
- I would not recommend anesthesia until the results of further eval/holter are available if elected. If declined, an ECG should be monitored during general anesthesia and lidocaine administered in the event of sustained VT or malignant arrhythmias. Avoid stimulants such as atropine or glycopyrrolate unless indicated. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

- Recheck ECG is recommended pending holter results, or in 3-4 months if declined.



PATIENT

Lola Sisson

- Recommend conservative monitoring with a recheck echocardiogram in 6-12 months, sooner if any development of clinical signs.

SPECIES

Canine

BREED

Boxer

SEX

Female Spayed

AGE

9 years

WEIGHT

67.4lbs

INTERPRETED BY

Maggie Machen
 Lamy, DVM
 DACVIM (Cardiology)

IMAGING

PERFORMED BY

Pamela Harrigan,
 RDCS

HOSPITAL NAME

Anchor Animal
 Hospital

REFERRING VET

Dr. Pietsch

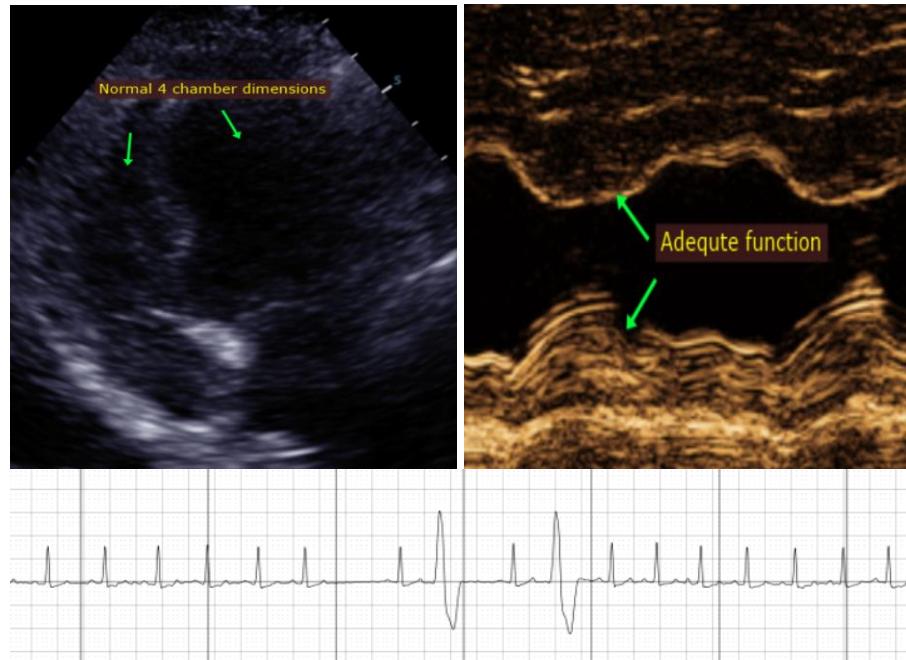
INVOICE

20650

DATE

8/19/21

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