



**PATIENT**

Astro Dixon

**SPECIES**

Canine

**BREED**

English Bulldog

**SEX**

Male Intact

**AGE**

11 years

**WEIGHT**

77.8lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Crystal Hill, RVT

**HOSPITAL NAME**

Southside Animal  
Clinic

**REFERRING VET**

Dr. Delitala

**INVOICE**

21263

**DATE**

9/28/21

**PRESENTING CLINICAL SIGNS**

History: History of 48 hours of intermittent rapid breathing and hyporexia noted previously; initial evaluation done 9/18/21. ECG non-diagnostic, although HR on exam ranged from 84-200bpm. Echo showed left heart enlargement with MR. Medications initiated based upon preliminary findings including Lasix, spironolactone and Pimobendan (updated dosages not provided). Patient has improved on medications.

**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, 20mm/mV. The underlying rhythm is sinus in origin; HR ranges from 42-100pm. The majority of the tracing is atrial bigeminy (every other beat an APC). No ventricular ectopic beats, pauses or other dysrhythmias observed.

ECG diagnosis: Sinus bradycardia with atrial bigeminy.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The cause of the ausculted arrhythmia is frequent atrial premature contractions (APCs) in primarily a bigeminal pattern. APCs are generated from abnormal conductive or fibrotic tissue in the atria of the heart muscle, and even frequent single APCs will often cause no clinical signs in dogs. When sustained however, supraventricular tachycardia can lead to symptoms such as lethargy and collapse. This ECG rules out atrial fibrillation as the cause of prior issues, although intermittent SVT remains possible (not seen here).

APCs are a very non-specific finding. They can be primary in origin, develop secondary to significant cardiac disease, or be extra-cardiac in origin; ie due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. In this dog with severe structural changes, this is no doubt the cause of the arrhythmia. 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 (albeit relatively low with APCs compared to VPCs).

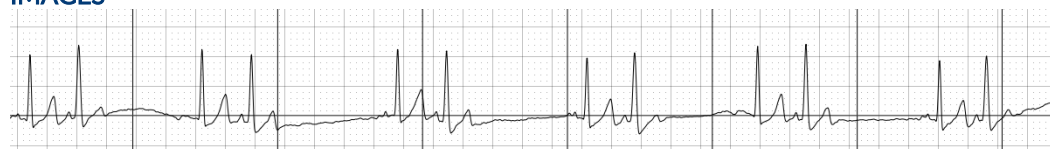
While the frequency of APCs is concerning, no treatment is clearly indicated without sustained or complex arrhythmias (only isolated beats are seen). A holter monitor is strongly recommended to understand the full extent of the rhythm, particularly should any recurrent clinical issues be noted such as lethargy or syncope. My hope is that prior sustained issues have improved with institution of cardiac supportive medications, although intermittent issues remain possible.

Anesthetic risk is high and should be avoided.

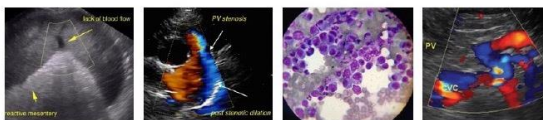
Monitor at home for collapse, exercise intolerance, and/or lethargy.

Plan: Consider holter monitor, particularly should symptoms develop or recur. If declined, a recheck ECG is recommended in 3-4 months, sooner if any clinical signs develop in the interim.

**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



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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**

English Bulldog

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

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