



**PATIENT**

Bailey Sarno

**SPECIES**

Canine

**BREED**

Boxer

**SEX**

Female Spayed

**AGE**

10 years

**WEIGHT**

71.8lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

24228

**DATE**

5/17/22

**PRESENTING CLINICAL SIGNS**

History: Bailey was noted to have an arrhythmia in March. He lost ~ 10lbs when was kenneled for a week. Good appetite and activity level. On exam today, pronounced arrhythmia, no murmurs noted, PSS, lung fields clear. BPL: 220mmHg x 5 (panting).

**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 150bpm (range 125-166bpm) with an irregularly irregular rhythm. Suspect an underlying sinus rhythm, although the PR interval has some variation and is decreased overall. AF cannot be ruled out without a 6 lead tracing. Frequent supraventricular arrhythmias most consistent with paroxysmal atrial tachycardia; HR 280-300bpm. No ventricular arrhythmias appreciated.

ECG diagnosis: Suspect underlying sinus rhythm with frequent paroxysmal SVT and APCs; atrial fibrillation cannot be ruled out.

**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 mild to moderately dilated and bulbous in appearance.

**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. Normal aortic outflow velocity; laminar flow. No aortic insufficiency.

**Right ventricle:** Right ventricular is normal.

**Right atrium:** RA is mildly dilated.

**Tricuspid valve:** The tricuspid valve appears normal with trivial tricuspid regurgitation.

**Pulmonary 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)	2.2
LA diam (cm)	3.8
LA:Ao (Swe)	1.7
IVS thickness (cm)	1.1
LVID diastole (cm)	4.5
PW thickness (cm)	1.1
LVID systole (cm)	2.9
FS (%)	36

**Doppler Measurements**

PV Vmax (m/s)	0.97
AoV Vmax (m/s)	1.8
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

**INTERPRETATION OF THE FINDINGS**

Essentially normal cardiac dimensions and function are identified in this study. Mild to moderate biatrial enlargement is likely secondary to the arrhythmia; however, follow up is advised. Trivial MR and TR are considered secondary and are of little of hemodynamic significance. No additional issues are identified.



**PATIENT**  
Bailey Sarno

The ECG is most consistent with frequent paroxysmal SVT; however, atrial fibrillation (AF) is not entirely ruled out. A six-lead ECG would be necessary to provide a definitive diagnosis; however, given a lack of structural disease the former is more likely (and fortunately treatment is the same). SVT of any origin most commonly develops secondary to severe atrial dilation, which is not appreciated in this case. A primary arrhythmic issue is a possibility; however, systemic illness should be ruled out through abdominal evaluation, lab work, etc.

**SPECIES**  
Canine

**BREED**  
Boxer

Given the frequency of the tachycardia, treatment with diltiazem is warranted as below. Our goal is to maintain a resting heart rate of 140-160bpm in hospital. If the patient is highly stressed, a holter should be considered to ensure control is adequate. The BP is notably elevated and should be reassessed once the medication is instituted.

**SEX**  
Female Spayed

Prognosis is guarded, as this is an unusual presentation. Patient will be at risk for collapse and/or sudden death lifelong, and mild activity restriction is advised.

**AGE**  
10 years

**RECOMMENDATIONS**

- Institute Diltiazem 1-2mg/kg PO q8h.
- Full systemic evaluation is recommended as discussed.
- Omega fatty acid supplementation may be of some long-term benefit.
- Anesthesia should be postponed prior to further evaluation/arrhythmic control.
- Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

**WEIGHT**  
71.8lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

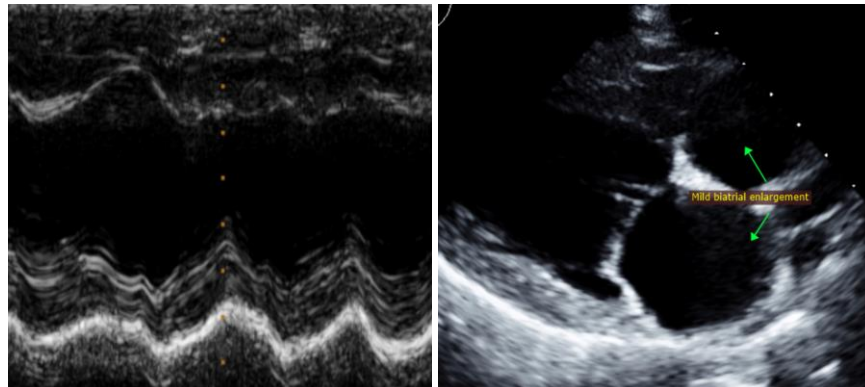
**PLAN**

- Recheck heart rate/ECG/BP in 1-2 weeks, target being 140-160bpm. Up-titrate Diltiazem to effect. Consider a holter monitor if indicated.
- If the rhythm is difficult to control, a 6 lead tracing should be sought.
- Recommend conservative monitoring with a recheck echocardiogram in 6 months, sooner if any development of clinical signs.

**IMAGING PERFORMED BY**

Pamela Harrigan,  
RDCS

**IMAGES**



**HOSPITAL NAME**

Mass Veterinary Services

**REFERRING VET**

Dr. Masloski

**INVOICE**

24228

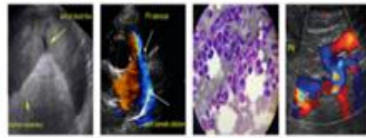
**DATE**

5/17/22





Mass Veterinary  
Services



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

**PATIENT**

Bailey Sarno

**SPECIES**

Canine

**BREED**

Boxer

**SEX**

Female Spayed

**AGE**

10 years

**WEIGHT**

71.8lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM  
DACVIM (Cardiology)

**IMAGING  
PERFORMED BY**

Pamela Harrigan,  
RDCS

**HOSPITAL NAME**

Mass Veterinary  
Services

**REFERRING VET**

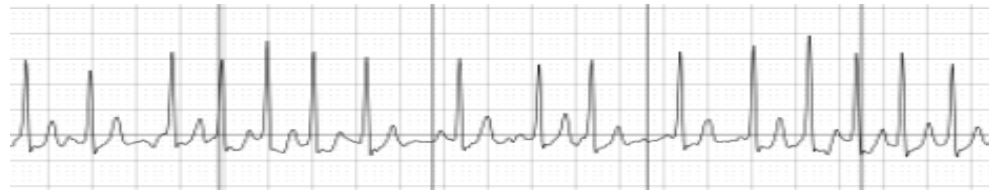
Dr. Masloski

**INVOICE**

24228

**DATE**

5/17/22



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

**Echocardiogram performed by:** Pamela Harrigan, RDCS  
Pet Animal Ultrasound Service (4paus.com)