



PATIENT

Sarge Hilbert

SPECIES

Canine

BREED

Labrador Retriever Mix

SEX

Male Neutered

AGE

9 years

WEIGHT

73lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM
DACVIM (Cardiology)

**IMAGING
PERFORMED BY**

Pamela Harrigan,
RDCS

HOSPITAL NAME

Mass Veterinary
Specialty Services

REFERRING VET

Dr. Masloski

INVOICE

20899

DATE

9/7/21

PRESENTING CLINICAL SIGNS

History: Sarge is referred for evaluation of an intermittent arrhythmia and new lethargy (lays down 10 minutes into a walk, seems to need rest). No coughing or dyspnea. Good appetite and otherwise good activity level for a dog of his years. An arrhythmia was noted in July. CV/RESP: transient arrhythmia, no murmurs noted, PSS, lung fields clear. BP: 160mmHg. No medications. *Sedated with propofol for echo.

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

An extended single lead ECG is included, 6 minutes in total; 25mm/s, 10mm/mV. The majority of the tracing shows a normal sinus rhythm with an average heart rate of 130-150pm. P for every QRS complex and vice versa. An acute onset narrow complex tachycardia is captured; heart rate 200bpm with slight variability. Some variation in ST morphology noted pre and post SVT. No ventricular arrhythmias, pauses or other dysrhythmias observed. Occasional APCs noted throughout the echocardiogram. ECG diagnosis: Paroxysmal SVT; suspect atrial tachycardia.

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. Mild LV hypertrophy with a small internal chamber.

Left atrium: The left atrium is normal.

Mitral valve: The mitral valve is diffusely thickened with mild prolapse into the left atrial lumen. No mitral regurgitation.

Aortic valve/aorta: Aortic root is prominent. Normal 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 trace 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)	2.8
LA diam (cm)	2.7
LA:Ao (Swe)	0.9
IVS thickness (cm)	1.1
LVID diastole (cm)	2.9
PW thickness (cm)	1.3
LVID systole (cm)	1.5
FS (%)	52

Doppler Measurements

PV Vmax (m/s)	0.53
AoV Vmax (m/s)	0.95
MR Vmax (m/s)	NA
TR Vmax (m/s)	NM
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

Overtly normal cardiac structure and function is identified in this study. The only abnormality identified is a small LV chamber with increased wall thickness, which may suggest pseudohypertrophy (i.e., secondary to volume changes). The blood pressure is



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reasonable in this patient ruling out systemic hypertension as a cause. **Full baseline lab work is recommended.**

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More importantly, the ECG does capture a rapid intermittent tachycardia most consistent with paroxysmal SVT (AT suspected). This is based upon the morphology of the complexes and APCs seen throughout the study. This particular breed is predisposed to a congenital accessory pathway that predisposes to this developing; however, an adult/senior onset is difficult to explain in this instance. Regardless, rapid AT may cause acute onset of clinical signs as is described by the owner and treatment is warranted with Sotalol as below. A holter is ideally recommended 2-4 weeks after starting the medication to ensure good arrhythmic control is obtained. Anti-arrhythmic therapy will likely be necessary life-long. No additional medications are indicated at this time.

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RECOMMENDATIONS

- Initiate Sotalol 1-2mg/kg PO q12h. Ideally recommend a holter monitor in 2-4 weeks to assess response. As an alternative, an extended ECG can be obtained.
- No additional medications are indicated.
- Omega fatty acid supplementation may also be of some long-term benefit in dogs predisposed to arrhythmias.
- Monitor for development of a murmur, cough, labored breathing, exercise intolerance or collapse episodes.
- Once good control of the arrhythmia is established, 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.

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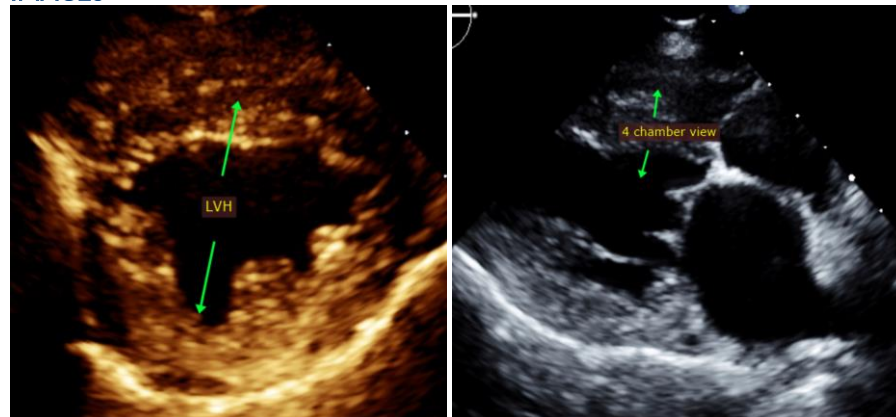
PLAN

- Recheck ECG every 6 months once controlled.
- Recommend conservative monitoring with a recheck echocardiogram in 1 year to screen for any progressive changes.

IMAGING PERFORMED BY

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IMAGES



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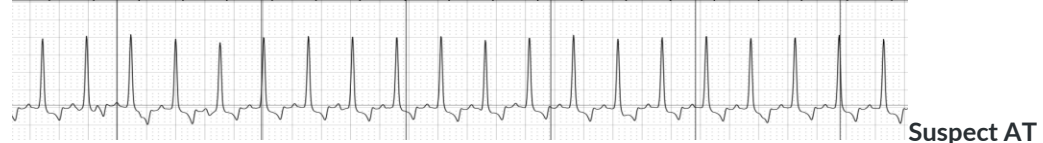
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NSR



Suspect AT

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.

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