



**PRESENTING CLINICAL SIGNS**

History: PU/PD. Exam revealed an arrhythmia. Possible pulmonary masses in radiographs.

**DATE**

2/22/22

**ECHOCARDIOGRAPHIC FINDINGS**

2D, M-mode, and Doppler study.

**PERFORMED BY:**

Tom McNeill

Left atrial size is normal. The mitral valve is normal. Left ventricular dimensions are normal. Left ventricular systolic function is hyperdynamic. The aorta and aortic valve appear normal, though there is mildly increased flow velocity in the ascending aorta. Right atrial and right ventricular dimensions are normal. The tricuspid valve is normal. The pulmonary artery and pulmonic valve are normal. No shunting lesions are visualized. No pericardial effusion or cardiac masses are seen.

**INTERPRETED BY**

Keith Blass, DVM,  
MS, DACVIM  
(Cardiology)

LA – 38.4 mm  
IVSd – 5.0 mm  
LVPWd – 5.0 mm  
LVIDd – 13.5 mm  
LVIDs – 6.0 mm  
FS – 55.5%  
RA – 30.0 mm  
LVOT – 1.76 m/s  
RVOT – 0.95 m/s

**PATIENT**

Molly Peterson

**SPECIES**

Canine

**ELECTROCARDIOGRAPHIC FINDINGS**  
A single lead ECG is submitted for review.

HR: 68 bpm  
Rhythm: Sinus with VPCs

**BREED**

Boxer

The underlying rhythm is sinus in origin. All sinus complex amplitudes and intervals are within normal limits. There are intermittent VPCs, including two ventricular couplets. No atrial ectopy or conduction blocks are seen.

**RADIOGRAPHIC FINDINGS**

**SEX**

Three-view thoracic radiographs are submitted for review.

**FS**

The cardiac silhouette is normal in size, with no specific chamber enlargement present. The pulmonary vessels are within normal limits. The pleural space is within normal limits. There is a possible small nodule in the left lung field just caudal to the heart, however, this likely represents a blood vessel. The trachea is normal. The remainder of the thorax is unremarkable.

**AGE**

10 y

**ASSESSMENT/RECOMMENDATIONS**  
Ventricular premature complexes (VPCs)

**WEIGHT**

42.1 kg

Molly's ECG demonstrates the presence of intermittent VPCs and ventricular couplets. Given her breed, it's likely she suffers from the form of arrhythmogenic right ventricular cardiomyopathy (ARVC) that is characterized by ventricular arrhythmias in the absence of myocardial dysfunction, as no abnormalities were appreciated in Molly's echocardiogram (she does have mildly increased aortic velocity, which could potentially result in the auscultation of a left basilar functional/innocent murmur).

**HOSPITAL NAME**

SVS Imaging CT

Molly's thoracic radiographs are unremarkable, save for the possible presence of a small pulmonary nodule, however, I suspect that this actually represents an end-on pulmonary blood vessel.

**REFERRING VET**

Dr. Severson



Recommended therapy for Molly's arrhythmia is sotalol (40 mg BID), though a switch to mexiletine (150 mg TID with food) could potentially be indicated if the sotalol results in the development of bradycardia.

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A recheck ECG is recommended in 2 weeks. A recheck echocardiogram is recommended if new physical exam and/or clinical abnormalities suggestive of cardiac dysfunction develop. Recheck radiographs may be warranted in 3 months to reevaluate the possible pulmonary nodule.

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Tom McNeill

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Keith Blass, DVM,  
MS, DACVIM  
(Cardiology)

PATIENT

Molly Peterson



SPECIES

Canine

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.

BREED

Boxer

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Keith Blass, DVM, MS, DACVIM (Cardiology)  
KeithBlass@gmail.com  
631-804-5754

SEX

FS

AGE

10 y

WEIGHT

42.1 kg

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Severson