

**PATIENT**

Bruiser Fulk

**SPECIES**

Canine

**BREED**

Boxer

**SEX**

Neutered Male

**AGE**

8 Years 1 Month

**WEIGHT**

90.8 Pounds

**INTERPRETED BY**

Camden Rouben, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Kathleen Byrnes

**HOSPITAL NAME**

AC Madison Mayodan

**REFERRING VET**

Dr. McKinlay

**INVOICE**

36515

**DATE**

4/10/26

**PRESENTING CLINICAL SIGNS**

History: P under anesthesia yesterday for mass removal- ECG showed possible supraventricular tachycardia, gave lidocaine and reverted to sinus- continued with mass removal-no issues- immediately after recovery HR 150 bpm, checked on p later and HR 220bpm, rDVM gave thump to chest and rate went back down to 150 bpm concern for ARVC due to breed Not on any medication

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
<b>NORMAL PARAMETER</b>	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
<b>PATIENT</b>	--	--	1.32	1.34	34.35	64.07	0.51
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
<b>NORMAL PARAMETER</b>	50-100	0.7-1.7	0.7-1.6				
<b>PATIENT</b>	--	2.22	1.06	41.27	4.03	3.9	2.56

RVOT Vmax: 0.93 m/s, LVOT Vmax: 1.29 m/s

**ECG Interpretation**

The average heart rate is roughly 120 beats per minute on average. The rhythm is irregular. There is an underlying sinus rhythm with intermittent ventricular premature contractions. They are in singles and triplets. The triplet shows a multifocal nature, but the majority of the VPCs, at least unfortunately in singles, are a right bundle branch block morphology. There is also a left bundle branch block conduction as well that appears as a single, but they are primarily right bundle branch block. There are a total of, based off of the EKG provided, 7 VPCs.

**Cardiac Presentation**

The left atrial size is within normal limits. The mitral valve leaflet is mildly thick and there is trace mitral regurgitation. The left ventricle appears normal in structure and overall systolic function and diastolic function. The aortic valve appears normal in morphology. There is no evidence of aortic insufficiency. The aortic outflow velocities are mildly increased. No evidence of subaortic stenosis. The right atrium appears normal subjectively in size. The tricuspid valve subjectively appears normal. There is trace



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tricuspid regurgitation. The right ventricular structure subjectively appears normal in structure and function. The pulmonic valve is normal morphology. There's no evidence of pulmonic insufficiency. The outflow velocities of the pulmonic valve appear within normal limits. There's no evidence of pleural effusion, pericardial effusion, or intracardiac masses based off of the images provided.

**ULTRASONOGRAPHIC FINDINGS**

- Based off of the images provided in the overall study, this patient does have ventricular premature contractions in multifocal nature. No evidence of overt or obvious cardiac structural abnormalities. Top differential is arrhythmogenic cardiomyopathy.

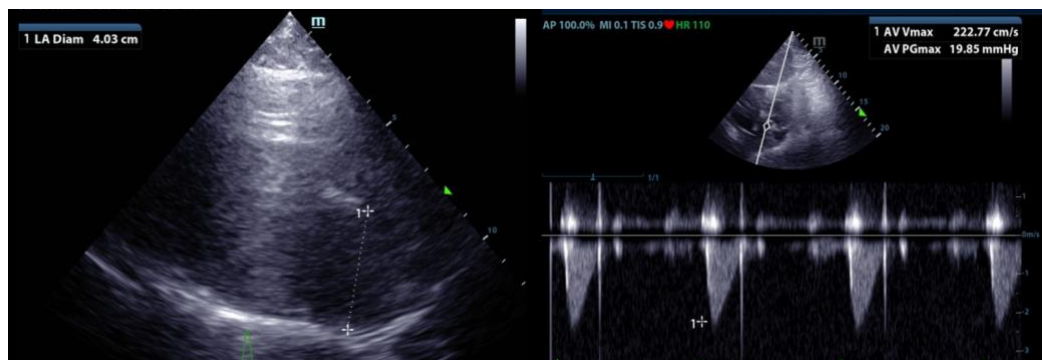
**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Based off of the entirety of the study, a 24-hour Holter monitor should be performed in this patient. In addition, a full CBC chemistry and thyroid panel should be performed in this patient, as well as thoracic radiographs. VPCs, particularly in older Boxers, do raise the concern for arrhythmogenic cardiomyopathy, formerly known as arrhythmogenic right ventricular cardiomyopathy.

In these particular patients, VPCs can also be caused by other systemic diseases, meaning extracardiac diseases. So, things like anxiety, thyroid disease, neoplasia, can all increase their risk for having VPCs. If a referral to a cardiologist is not possible, the use of Sotalol should be considered in this patient at 1.0-2.0 mg/kg by mouth twice a day.

The patient should be closely monitored for increased resting respiratory rate and effort, exercise intolerance, collapsing episodes, things of that nature. Activity restriction is not warranted in this patient. This patient may be at an increased risk for sudden death.

An EKG should be considered after starting Sotalol. Please keep in mind for all future echocardiograms, the use of Sotalol can reduce overall left ventricular systolic function. A recheck echocardiogram with an EKG should be considered in at least 6 months.





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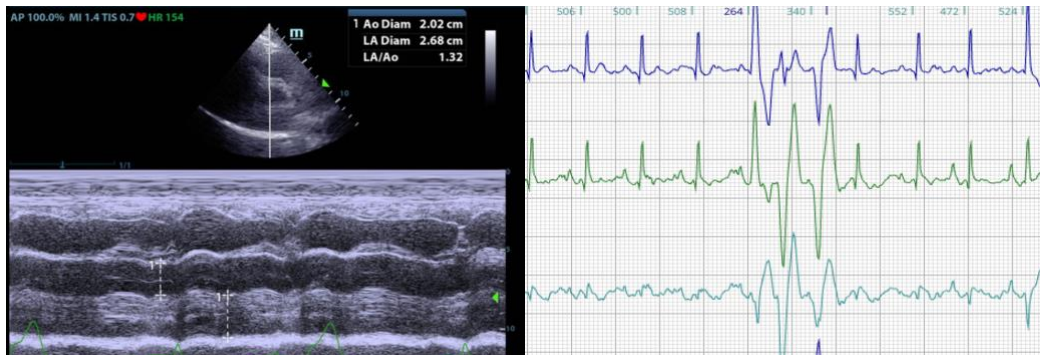
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Camden Rouben DVM, DACVIM (Cardiology)

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