


**PATIENT**

Boom Freeborn

**PRESENTING CLINICAL SIGNS**

History: 2-3 episodes of collapse. Irregular sounding heart rhythm.

**SPECIES**

Canine

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with no left atrium enlargement. Normal LV dimension with adequate myocardial function. The tricuspid valve appears mildly thickened, with some degree of tricuspid regurgitation. The right atrium is markedly dilated. The right ventricle is markedly dilated with suspect systolic dysfunction. Normal aortic outflow velocities with laminar flow. The MPA is mildly dilated. No significant pericardial effusion. No pleural effusion seen. No obvious cardiac masses. Highly irregular rhythm throughout with periods of marked tachycardia.

**BREED**

Great Dane

**SEX**

Male Neutered

**CARDIAC CHART**
**AGE**

8 years

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NA	NM	NM	1.3	22	40	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.4	NM	69.4	4.0	5.0	3.9
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
<b>BODY WEIGHT DEPENDENT PARAMETERS</b>				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

**WEIGHT**

153lbs

**INTERPRETED BY**

 Maggie Machen Lamy,  
 DVM, DACVIM  
 (Cardiology)

**IMAGING PERFORMED BY**

B. Pilon, DVM

**HOSPITAL NAME**

 O'Sullivan Animal  
 Hospital

**REFERRING VET**

Dr. Pilon

**INVOICE**

27253

**DATE**

11/3/22

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Unfortunately, this patient has severe right ventricular cardiomyopathy with marked right heart dilation and dysfunction. A tricuspid leak is noted, although not extensively elevated, which is mild and considered secondary. The left heart is mildly affected and relatively insignificant. Regardless, these findings confirm severe structural heart disease is the cause of current clinical issues. It is important to note that this is not an extensive study, and referral for advanced imaging is strongly recommended.

Dilation and dysfunction of the right heart specifically can be primary in nature due to a form of ARVC, and this is potentially supported by arrhythmias seen throughout the study. **The most life-threatening issue in this patient is marked arrhythmias are appreciated and immediate six-lead**



**PATIENT**

Boom Freeborn

tracing should be evaluated as anti-arrhythmic therapy is certainly warranted. If this not available at your facility, referral is advised on an emergent basis.

**SPECIES**

Canine

Institute lifelong medications as recommended as below. If the patient is unstable or experience collapse or worsening symptoms at home, 24 hours monitoring in addition to oxygen support and diuretic therapy should be considered.

**BREED**

Great Dane

Prognosis is poor at this stage with most dogs succumbing to CHF in less than 6 months. There is high risk for recurrent congestive heart failure, malignant arrhythmias (AF, VT), collapse and/or sudden death in the future even on medications.

**SEX**

Male Neutered

Omega fatty acid supplementation and mild salt restriction may be of some long-term benefit.

Elective anesthesia is not advised.

**AGE**

8 years

Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for CHF going forward.

**WEIGHT**

153lbs

**PLAN**

**Immediate referral and ECG evaluation as discussed.** Institute Lasix 1-2mg/kg PO q12h. Institute Pimobendan 0.3/mg/kg PO q12h. Institute Spironolactone 1-2mg/kg PO q12h (available in 25 and 50mg tablets). Once BP is documented >130mmHg, institute ACEI 0.5mg/kg PO q12h.

**INTERPRETED BY**

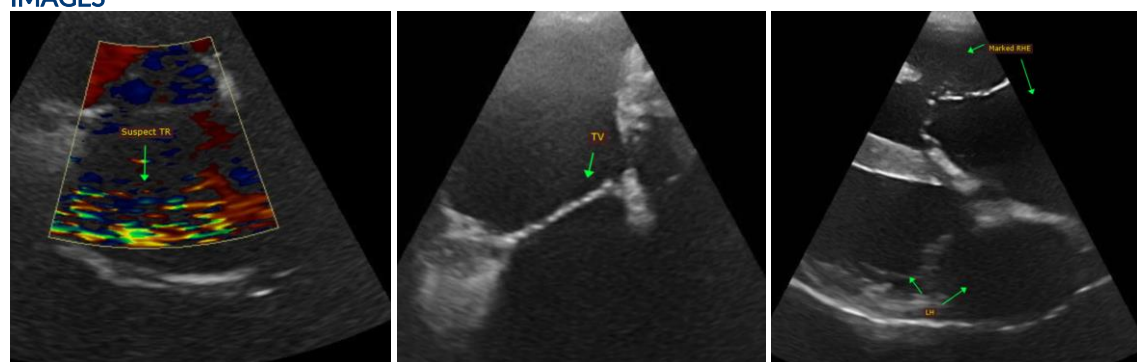
Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

Recheck is recommended based upon clinical evaluation.

**IMAGING PERFORMED BY**

B. Pilon, DVM

**IMAGES**



**HOSPITAL NAME**

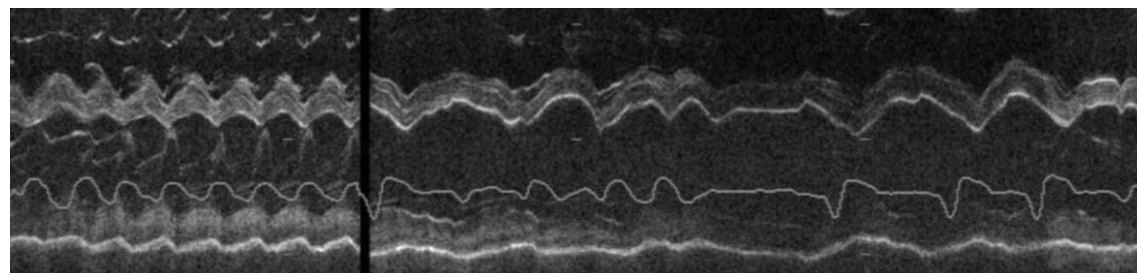
O'Sullivan Animal  
Hospital

**REFERRING VET**

Dr. Pilon

**INVOICE**

27253



**DATE**

11/3/22



**PATIENT**

Boom Freeborn

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.

**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**

Great Dane

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

**SEX**

Male Neutered

**AGE**

8 years

**WEIGHT**

153lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**IMAGING  
PERFORMED BY**

B. Pilon, DVM

**HOSPITAL NAME**

O'Sullivan Animal  
Hospital

**REFERRING VET**

Dr. Pilon

**INVOICE**

27253

**DATE**

11/3/22