



PATIENT

Lester Lukunich

SPECIES

Canine

BREED

Greyhound

SEX

Male Neutered

AGE

3 years

WEIGHT

82lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Jennifer Todd, DVM

HOSPITAL NAME

Lambs Gap Animal
Hospital

REFERRING VET

Dr. Todd

INVOICE

23217

DATE

3/22/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. Doing well and sleeping heart rate at home is usually around 80 bpm. Today's blood pressure was 142/90, 137/91, 136/91mmHg.

-Current medications: Diltiazem 60mg PO Q8h.

-Pertinent previous echo findings (9/2021 MML): Suspect AF, heart 125-150bpm (avg 190bpm). CVD B1. LA: 3.1, LV: 4.9, FS: 35%.

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 100-214bpm). No identifiable P waves with an irregularly irregular rhythm consistent with atrial fibrillation.

ECG diagnosis: Atrial fibrillation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Diffuse thickening of mitral valve leaflets (anterior>posterior) with no prolapse into the left atrial lumen. Mild central mitral regurgitation with moderate left atrial dilation. Mild LV dilation with decreased myocardial function. The tricuspid valve appears subjectively normal, with mild tricuspid regurgitation. Normal right atrial and ventricular diameter. A suspect prominent papillary muscle can be seen on left cranial views; small mass is not entirely ruled out. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities. No aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No cardiac tumors observed.

CARDIAC CHART

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	NM	NM	1.6	1.7	18	25	0.7
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	1.2	1.0	37.2	3.5	5.1	4.2
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				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)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				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)

Adapted from June Boon, Veterinary Echocardiography, 1998
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435
Hansson et al, Vet Rad and Ultrasound 2002
Bonagura et al, Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease persists with evidence of progression. Mild to moderate mitral and mild tricuspid regurgitation are similar to previous; however, the left heart dimensions are increased. Additionally, moderate LV dysfunction has developed, which is certainly concerning. The abnormally papillary muscle in the RV is similar to previous with no obvious progressive enlargement. No additional issues are identified. Additionally, atrial fibrillation persists with an improved average heart rate.

Given what is seen here, it is difficult to know if the LV dilation and dysfunction was sub-clinical and led to the arrhythmia or if the opposite is true. The latter is suspected, although at this point the differentiation is purely academic. Recommend institution of Pimobendan as below. Additionally, screening for issues that may exacerbate LV dysfunction is recommended, including atypical diet or hypothyroidism.

Anesthesia is not advised.

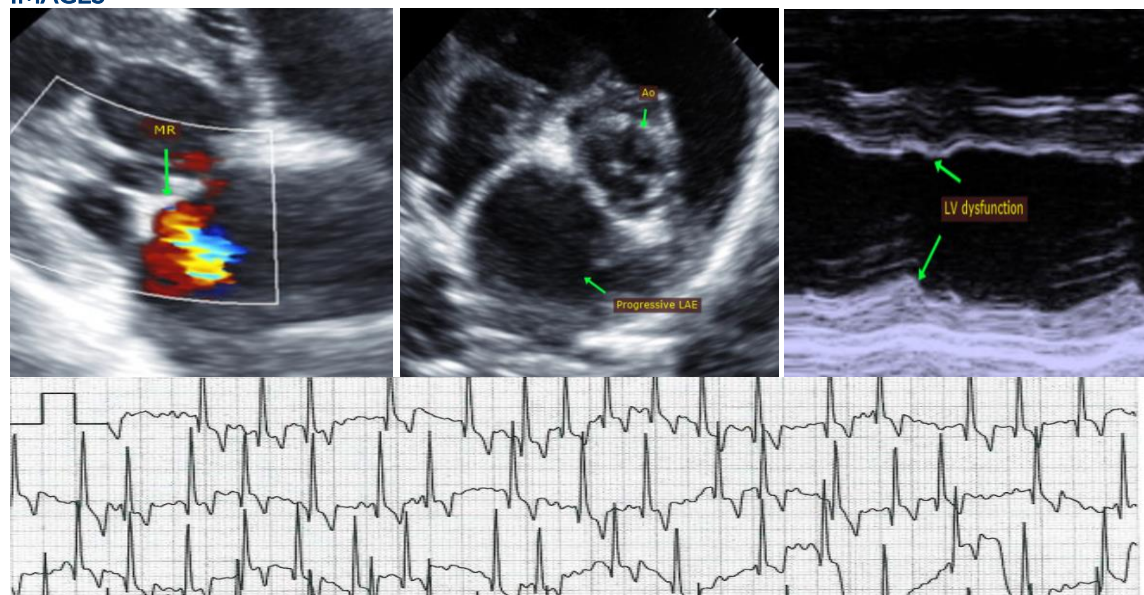
Prognosis is guarded long-term with risk for progression to CHF, malignant arrhythmias and/or sudden death going forward. It is encouraging this patient continues to do well; however, the young age is certainly concerning.

PLAN

Continue Diltiazem as prescribed. Institute Pimobendan 0.3mg/kg PO q12h. Consider thyroid level, diet history, etc.

Recheck echocardiogram and ECG are recommended in 6 months.

IMAGES





PATIENT

Lester Lukunich

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

Greyhound

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Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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