



## PATIENT

Bear Miller

## SPECIES

Feline

## BREED

DSH

## SEX

Male Neutered

## AGE

15 years

## WEIGHT

16lbs

## 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

23301

## DATE

3/28/22

## PRESENTING CLINICAL SIGNS

History: History of CKD and recent systemic hypertension. He has a grade II-III/VI right parasternal heart murmur. He was prescribed on 2/15/22 when her blood pressure measured average of 193/119. However, Amlodipine has not yet been started. At his recent exam and wellness check, Bear's lab results showed an increased NT-ProBNP (1087). T4 was normal. Creat=2.1 and Phos=4.6. Blood pressure today was 191/117, 182/122, 182/118mmHg.

**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 214bpm with a regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. No ectopic beats, pauses or other dysrhythmias observed. ECG diagnosis: Normal sinus tachycardia.

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with borderline hypertrophy globally. A focal septal bulge is appreciated. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled and hyperechoic. The endocardium also appears remodeled. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. No TR. Blood flow through both the LVOT and RVOT is normal in velocity. Mild aortic insufficiency. No pleural or pericardial effusion seen. No obvious cardiac tumors.

## CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) <small>(Moise, Pipers)</small>	LVIDd (cm) <small>(Moise, Pipers)</small>	LVWd (cm) <small>(Moise, Pipers)</small>	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	7.3	NM	0.68	1.7	0.52	69	96
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) (Abbott)	LA 2D short axis Base view (cm) (Abbott)	LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)	
NORMAL	<1.5	<1.3	<1.2	<1.6	<1.3	<0.9	
PATIENT	1.4	1.2	1.2	1.8	0.9	NM	

\*Note: All measurements based upon multi-modal images and methods. An average value is reported.

Adapted from June Boon, Veterinary Echocardiography, 1998

Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Focal LV hypertrophy is present in addition to borderline global LVH which may be indicative of early hypertrophic disease or may simply represent a normal variant. The recent diagnosis of systemic hypertension is likely related and follow up is advised once the blood pressure is well controlled. This is further supported by a small aortic leak. Certainly, there is no evidence of severe chronic pressure overload of the left heart which is a good sign. The LA is normal indicating low risk at this time. The ECG is unremarkable with a sinus tachycardia.



**PATIENT**

Bear Miller

Continued treatment/evaluation of systemic hypertension is recommended, including institution of Amlodpine, screening for underlying causes, etc. Consultation with an Internal Medicine Specialist may be useful if difficult to control.

**SPECIES**

Feline

Given a normal LA dimension, no medications are indicated.

Anesthetic risk is mild, however any cat with this degree of fibrosis and diastolic dysfunction will be at risk for iatrogenic IV fluid overload should they be needed in the future.

**BREED**

DSH

Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

**SEX**

Male Neutered

A recheck echocardiogram is recommended in 6-12 months to screen for any evidence of progression, sooner if clinical signs arise.

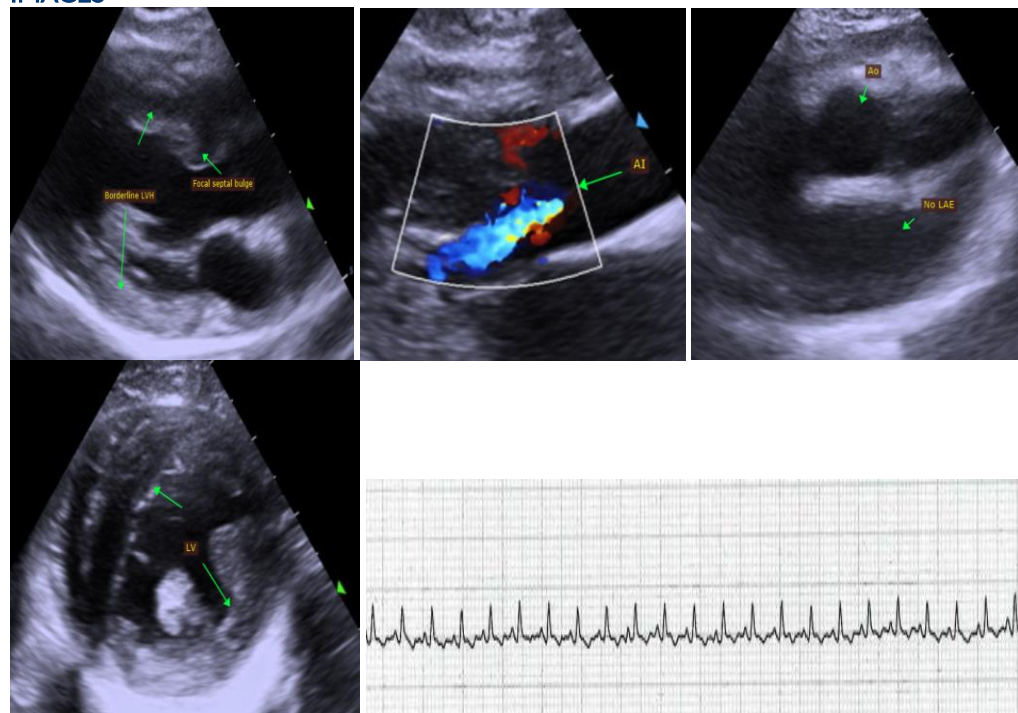
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**INVOICE**

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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.

**DATE**

3/28/22

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