



## PATIENT

Bean Cortes

## SPECIES

Feline

## BREED

DSH

## SEX

Male Neutered

## AGE

6 years

## WEIGHT

14.3lbs

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

## IMAGING PERFORMED BY

Shari Reffi, CVT

## HOSPITAL NAME

Ringwood Animal  
Hospital

## REFERRING VET

Dr. DeSpinto

## INVOICE

29049

## DATE

2/16/23

## PRESENTING CLINICAL SIGNS

History: Grade III/VI murmur. Increased RR. Heart sounds sl. muffled.

-Current medications: Lasix

-Abnormal PE/Chem/CBC/UA Results: Mild neutropenia, PLT's clumped

## ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a mildly hyperechoic endocardium consistent with fibrosis. Mild papillary muscle remodeling. The left atrium is normal in size. The right atrium is normal in size. Trace MR. No TR. The right ventricle appears normal. The mitral valve is suspected to be causing a dynamic LVOTO with a minimally elevated velocity. Blood flow through the RVOT is normal in velocity. Trace AI, no PI. No cardiac tumors are seen. No pleural or pericardial effusion.

## CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWVd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.5	268	0.51	1.3	0.50	57	90
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	1.3	1.3	1.3		1.9	1.3	NM

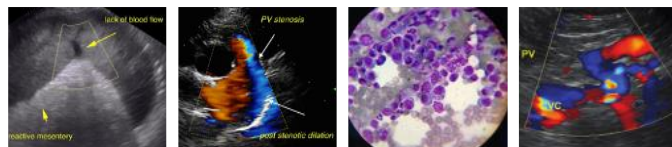
*\*Note: All measurements based upon multi-modal images and methods. An average value is reported.*  
Adapted from June Boon, Veterinary Echocardiography, 1998  
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Essentially normal cardiac structure and function. The murmur is due to an LVOT obstruction with secondary trace MR, which is secondary to tachycardia. The valve itself appears normal, and no LVH is seen making this likely a stress/tachycardia-induced phenomenon. That being said, this may be the first sign of early HOCM, and serial monitoring is advised. The left atrium is normal indicating low risk for complication. Trace AI is noted, and a baseline BP recommended. Finally, a period of acute bradycardia was noted by the sonographer; a screening ECG is recommended. No additional issues are identified.

In patients with persistent LVOT obstruction and development of hypertrophy, a beta blocker is often prescribed to lower heart rate and decrease the gradient. In this patient with a normal left atrium and no LVH, no medications are clearly indicated.

These findings would suggest CHF is not the cause of respiratory changes. **Lasix can be safely discontinued.** Other possibilities should be considered.



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Anesthetic risk and/or steroid risk is currently low. Avoid heart rate stimulating drugs (atropine, glycopyrrolate) unless clinically necessary. Avoid vasodilators such as acepromazine as this can worsen obstruction. Judicious IV fluid rates are recommended to avoid fluid overload in this patient with diastolic dysfunction.

## SPECIES

Feline

A recheck echocardiogram is recommended in 6-12 months, sooner if any clinical signs arise.

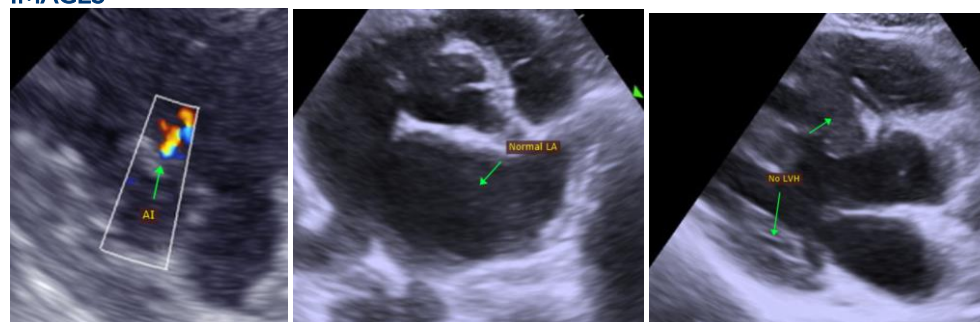
## BREED

DSH

## IMAGES

## SEX

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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.

## WEIGHT

14.3lbs

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.

## INTERPRETED BY

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**Maggie Machen Lamy, DVM**  
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