



**PATIENT**

Ghost Ruvolo

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

13.73 pounds

**INTERPRETED BY**

Sara Brethel, DVM,  
 DACVIM (Cardiology)

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

Banfield Pet Hospital-  
 North Eugene

**REFERRING VET**

Dr. Coker

**INVOICE**

13412

**DATE**

01/26/26

**PRESENTING CLINICAL SIGNS**

- ABNORMAL Labwork Values: 1/15/2026 Cardiopet 1500 (0-100)
- Is there a Heart Murmur? If so, please grade. H/L: heart murmur grade 3/6
- Current Medications: Prednisolone 15mg/5ml Syrup

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	6.24	NM	0.57	1.7	0.9	59.41	--
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	2.0	2.0	NM		UE	1.05	NM
Adapted from June Boon, Veterinary Echocardiography, 1998							
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

MR: 3.87

**Cardiac Presentation**

The mitral valve leaflets are normal and there is mild mitral regurgitation. There is no prolapse of the mitral valve leaflets. The left atrial size is severely increased. Left ventricular systolic function appears preserved. Left ventricular diastolic dimensions are within normal limits. There is evidence of systolic anterior motion of the mitral valve and there is a discrete step up in velocities through the left ventricular outflow tract. There is evidence of a kissing lesion at the level of SAM and the left ventricular myocardium appears hyperechoic in some regions. Left ventricular walls measure hypertrophied. There is normal right atrial size without evidence of tricuspid regurgitation. There is no prolapse of the tricuspid valve leaflets and no evidence of pulmonary hypertension on the images provided. The right ventricle appears normal in structure and function subjectively. The aortic and pulmonic valves have normal morphology and the corresponding outflow velocities are within normal limits. There is no evidence of pulmonic or aortic insufficiency. The aorta appears normal. The pulmonary artery and associated branches appear normal. There is no evidence of pleural effusion, pericardial effusion, or intracardiac masses.

**ULTRASONOGRAPHIC FINDINGS**

- Hypertrophic obstructive cardiomyopathy.
- Severe left atrial enlargement.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



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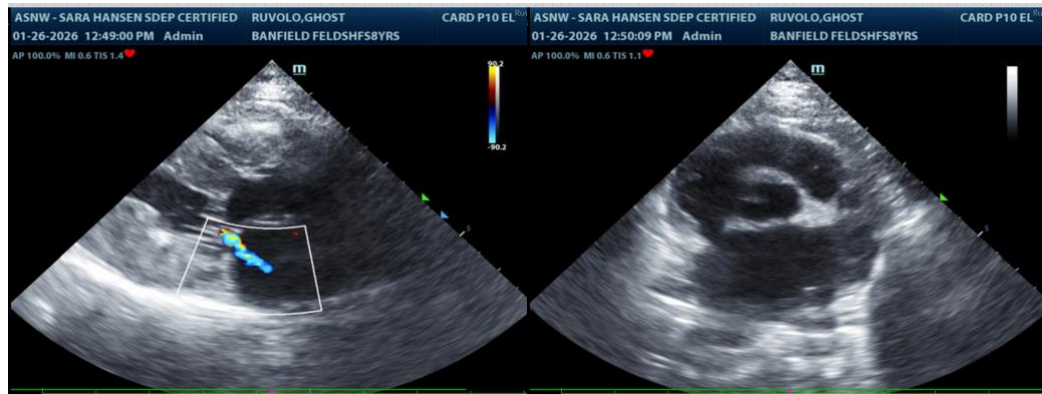
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The patient has hypertrophic obstructive cardiomyopathy with severe left atrial enlargement. I have concerns with the patient being on concurrent prednisolone therapy. Close monitoring of breathing rates is recommended as steroids can precipitate an episode of congestive heart failure. In addition, the patient should be started on clopidogrel, a dose of 18.75 mg once daily (quarter of a 75 mg tablet once daily).

Clopidogrel is a very bitter tablet, and I recommend hiding the tablet inside a gel capsule and giving with a pungent food. The client should start monitoring respiratory rate and effort at home if not already doing so. The resting respiratory rate should be < 35-40 breathes/minute when the patient is resting or sleeping. If the breathing rates are increasing, then chest radiographs are recommended.

I recommend ensuring the patient is normotensive and euthyroid as well to rule out any other hypertrophic phenotypes. Recheck echo is recommended in six months. The patient is at an increased risk for elective anesthetic procedures. If anesthesia is needed, judicious perioperative fluids are recommended due to the increased left atrial size. Medications like dexmedetomidine and other alpha 2 agonists are best avoided. Ketamine is also best avoided. If needed, anticholinergics can be used in the face of a clinically significant bradyarrhythmia (i.e., bradycardia with concurrent hypotension). If the patient is on an ACEi, recommend not giving this therapy the day of anesthesia.



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.

Sara Brethel, DVM, DACVIM (Cardiology)

[info@SonoPath.com](mailto:info@SonoPath.com)