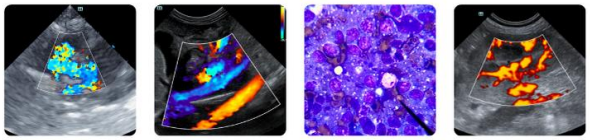

PATIENT

Rusty Duke

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

16 years

WEIGHT

14.8lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Greg Kuhlman, DVM

HOSPITAL NAME

Red River Animal Emergency Hospital & Referral Center

REFERRING VET

Dr. Kuhlman

INVOICE

47785

DATE

5/6/26

PRESENTING CLINICAL SIGNS

History: BP: 210mmHg. Initially found to have an elevated ProBNP: 191 7/2025 despite being asymptomatic at that time. Recheck proBNP later that month was 364. In the months that followed, he developed progressive clinical signs, including worsening cough, decreased appetite, mild weight loss with muscle wasting, and occasional gastrointestinal upset. A transient grade 2/6 heart murmur was later noted 3/2026. On exam today, the murmur would resolve as his heart rate slowed. On presentation, respiratory abnormalities (wheezes and crackles) were noted.

ECHOCARDIOGRAM FINDINGS

2D, m-mode and color flow is available. The left ventricular wall dimensions aer borderline overall. Normal LV chamber size. The papillary muscles are mildly remodeled. The left atrium is slightly enlarged. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure with mild MR. Systolic anterior motion is seen on 2D and color flow imaging, with a slightly elevated LVOT velocity. The RVOT velocity is normal. No pleural or pericardial effusion seen. No obvious cardiac tumors

CARDIAC CHART

FELINE CARDIAC PARAMETERS	**BODY WEIGHT** (kg)	**HR** (BPM)	**IVSd** (cm) (Moise, Pipers)	**LVIDd** (cm) (Moise, Pipers)	**LVWd** (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	6.7	NM	0.55	1.4	0.55	55	88
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	NM	<1.4	NM		2.0	1.50	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

The only abnormality identified is borderline LV hypertrophy with a mild LVOT obstruction and secondary MR. This may reflect early HOCM; however, a normal stressed-related variant is possible. Regardless, the LA is normal, which suggests low risk for complication. Serial echocardiography will be necessary to determine progression and clinical significance. No additional issues are identified.

Given these findings, no medications are indicated.

The BP is concerning, and is more likely the cause of BNP elevation. Follow up as dictated by IM.

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Prognosis is guarded prior to assessing for progression.

Anesthetic risk is considered mild; however, judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.

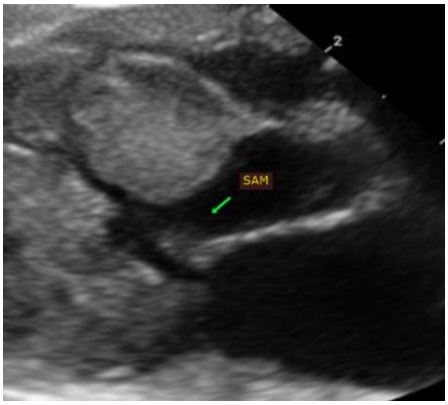
Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

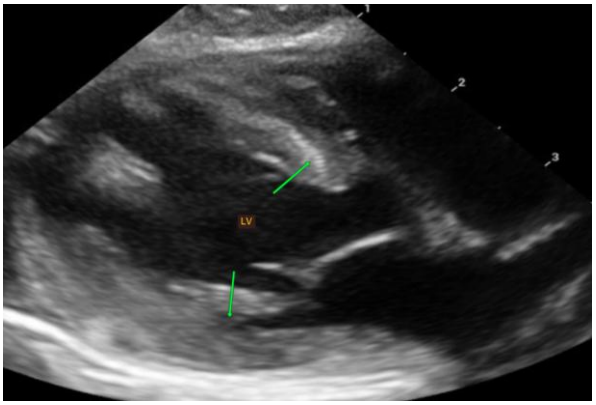
PLAN

Follow up for SHT as dictated by IM. BP and T4 should be monitored every 6 months.

A recheck echocardiogram is recommended in 6-12 months to screen for any evidence of progression.

IMAGES





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.

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.

Maggie Machen Lamy, DVM
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