



PATIENT

Sophie Reise

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

10 years

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Melissa Weisman,
DVM

HOSPITAL NAME

Minnesota Veterinary
Ultrasound

REFERRING VET

Dr. Weisman

PRESENTING CLINICAL SIGNS

History: On examination an IV/VI parasternal heart murmur was noted. This was previous characterized last year as a III/VI murmur. An echo was performed last July (2020) with MNVUS and was found to have an increased intraventricular septum (0.55cm, LA: 1.4). Patient is doing fine at home, no signs of respiratory distress, crackles, wheezes, etc.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only. Borderline cardiomegaly, VHS: 8.0. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal with a focal septal thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle remodeling. The right ventricle is subjectively normal in size and morphology. There is borderline left atrial dimension. No right atrial enlargement present. Normal RVOT velocity. Mild systolic anterior motion (SAM) of the mitral valve present, with an elevated dynamic LVOT velocity. There is mild eccentric mitral regurgitation present secondary to SAM. No other significant valvular regurgitation is present. Mild TR. TR velocity may be mildly elevated; however, this is not a consistent finding. No significant right heart enlargement. There is no pericardial effusion noted. No pleural effusion appreciated. 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	5.94	NM	0.59	1.36	0.51	60	95
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	1.4		2.8	1.1	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.

INVOICE

20654

DATE

8/19/21

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The diagnosis is hypertrophic obstructive cardiomyopathy (HOCM). This indicates LV thickening (focal in this case) with a dynamic LVOT obstruction (SAM) and secondary mitral regurgitation as the cause of the heart murmur. The septal thickening was previously noted and is likely



PATIENT

Sophie Reise

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

10 years

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Melissa Weisman,
DVM

HOSPITAL NAME

Minnesota Veterinary
Ultrasound

REFERRING VET

Dr. Weisman

INVOICE

20654

DATE

8/19/21

nonprogressive. The obstruction appears mild with a small mitral leak. There is no left atrial enlargement present, indicating the risk of spontaneous CHF and/or a thrombotic event is currently low. A small tricuspid leak is noted with some suspicion for mildly elevated velocities (i.e., consistent with elevated pulmonary pressures). That being said, this is not a consistent finding, and the right heart is normal making true pulmonary hypertension unlikely in an asymptomatic cat. No additional issues are identified.

While no medications have been shown to definitively alter long term outcome at this stage of disease, atenolol is often initiated to decrease the outflow obstruction. If the patient is easily medicated, it is reasonable to initiate at this time as below. That being said, this does not appear to be significantly progressive compared to the prior study and if there is any difficulty medicating at home, simple monitoring is a very reasonable approach. Discussion with the owner is advised. No additional medications are indicated prior to significant atrial dilation.

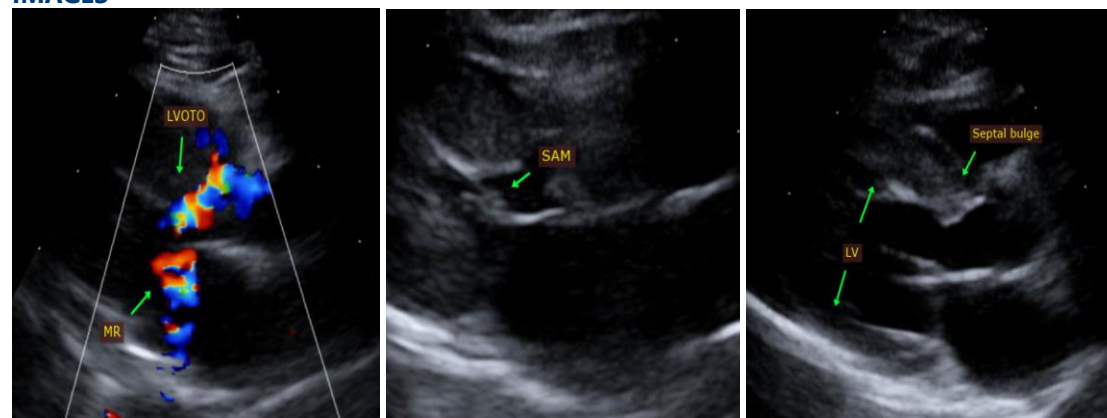
Monitor at home for any respiratory signs or blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (ketamine, glycopyrrolate, atropine).

PLAN

If elected, administer titrating dose of atenolol: 25mg tablets; Give ¼ tab once daily. Recheck heart rate in 1-2 weeks with target stressed rate of 140-160bpm 12-24 hours post-administration. Increase as needed until target reached. Screening blood pressure and T4 are recommended every 6 months.

Recommend recheck echocardiogram in 6 months to assess for progression, sooner if clinical issues arise.

IMAGES





PATIENT

Sophie Reise

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

Feline

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

DSH

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

SEX

Female Spayed

AGE

10 years

WEIGHT

13lbs

INTERPRETED BY

Maggie Machen
Lamy, DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Melissa Weisman,
DVM

HOSPITAL NAME

Minnesota Veterinary
Ultrasound

REFERRING VET

Dr. Weisman

INVOICE

20654

DATE

8/19/21