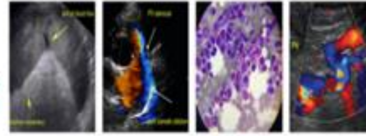
Mass Veterinary Services



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Grace Minnix

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
19 years

WEIGHT
10.44lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
32350

DATE
8/14/23

PRESENTING CLINICAL SIGNS

History: Grace is referred to evaluate a heart murmur. A thyroid level done in June was normal. She had been doing well until the past few days when she has become lethargic and is presently sleeping in the basement, which is not normal for her. She continues to eat well. History of kidney disease - gets SQ fluids every 2 weeks. On exam: gallop rhythm, grade III/VI parasternal murmur, PSS, lung fields clear, compressible thorax, mm pink, moist, CRT<2. BP: 180 mmHg x 5. *Sedated with propofol for study.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate myocardial function. The LV wall thicknesses are highly irregular with severe basilar septal hypertrophy contrasting regions of thinning. The LV function is intact. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hypertrophied and hyperechoic.
Left atrium: The left atrium is normal. No obvious spontaneous contrast or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. No obvious systolic anterior motion is seen. No MR.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly elevated aortic outflow velocity. Trace aortic insufficiency with a prominent aortic root.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: The right atrium is normal in dimension.
Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity; laminar flow.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 188bpm.

2-Dimensional Measurements

Measurement	Value
Ao diam (cm)	1.2
LA diam (cm)	1.3
LA:Ao (Swe)	1.1
IVS thickness (cm)	0.80
LVID diastole (cm)	1.5
PW thickness (cm)	0.68
LVID systole (cm)	0.54
FS (%)	66

Doppler Measurements

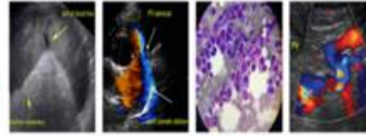
Measurement	Value
PV Vmax (m/s)	0.9
AoV Vmax (m/s)	1.3
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

INTERPRETATION OF THE FINDINGS

HCM is a rule out diagnosis, once hypertension and hyperthyroid disease are ruled out. In this patient with elevated blood pressure, an aortic leak and a dilated aortic segment, this may be reflective of hypertensive cardiomyopathy. Some component of primary HCM is not ruled out in this senior cat until the blood pressure is well controlled for an extended period of time. Regardless, vasodilation is recommended to help stabilize the situation. Additionally, screening for causes of SHT is recommended (PLN, adrenal tumor, etc.). The LA is normal, indicating the risk for complication is low at this time. No cause of the murmur is identified in this study.

Prognosis is guarded prior to assessing for progression.

Mass Veterinary Services



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT
Grace Minnix

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
19 years

WEIGHT
10.44lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Mass Veterinary Services

REFERRING VET
Dr. Masloski

INVOICE
32350

DATE
8/14/23

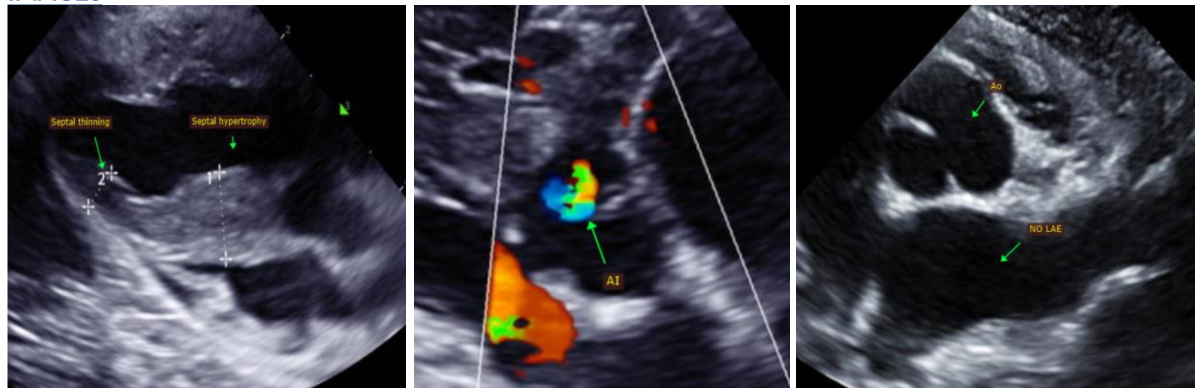
RECOMMENDATIONS

- Given these findings, no cardiac specific medications are indicated.
- Recommend Amlodipine to effect and screen for underlying causes of SHT.
- Monitor BP and T4 every 6 months.
- 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). A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance.
- Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

PLAN

- Recommend recheck echocardiogram in 6 months to screen for progression, sooner if any clinical signs arise in the interim.

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
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)