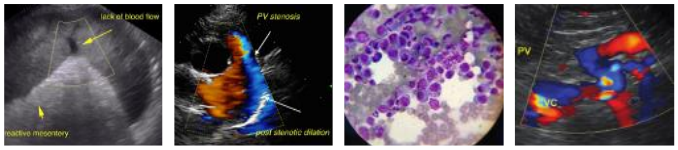
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Shobu Freedman/Zelinski

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
14 years

WEIGHT
12lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Kelly Vazquez, CVT

HOSPITAL NAME
Animal General on Hudson

REFERRING VET
Dr. Zelinski

INVOICE
30722

DATE
3/10/23

PRESENTING CLINICAL SIGNS

History: Patient with 1 week history of renal failure (had abdominal ultrasound on 4/26/23) - showed possible renal infarcts. BP 190mmHg; started Amlodipine 3 days ago.
-Current medications: Amlodipine, Alum hydrox, SQ LRS daily.
-Abnormal PE/Chem/CBC/UA Results: Azotemic, HCT 28%.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal in dimension. A borderline focal septal thickening is identified (see below). There is a diffusely hyperechoic endocardium consistent with fibrosis. The endocardium also appears remodeled. Papillary muscle fibrosis and remodeling. The left atrium is mildly dilated and bulbous in appearance. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. No MR or TR. Blood flow through the RVOT is normal in velocity. Intermittent LVOTO is suspected with mild secondary MR. No effusions seen. No obvious cardiac tumors identified.

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	5.4	215	0.56	1.6	0.49	54	87
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	1.5	1.5	1.4		NM	1.3	NM

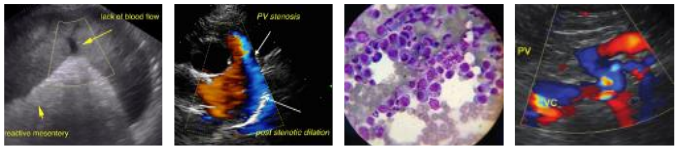
**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Borderline focal septal hypertrophy is present, which may be indicative of early hypertrophic disease, may be secondary to systemic hypertension or may simply represent a normal variant. The LA is mildly dilated which would indicate clinical stability; however, there may be risk for progression going forward. Fluid therapy can also cause a slight increase in LA dimension and without a baseline this is also a possibility. Serial echocardiography will be necessary to determine progression. Finally, an intermittent LVOTO is appreciated, which may cause a murmur depending on heart rate and volume status.

Given these findings, no medications are indicated.

Continued treatment of reported systemic hypertension is recommended with a target stressed BP of <160mmHg. Additionally, fluid therapy should be continued; however, close monitoring for signs of intolerance is recommended. Baseline CXR may be useful for future comparison.



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Shobu Freedman/Zelinski

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
14 years

WEIGHT
12lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Kelly Vazquez, CVT

HOSPITAL NAME
Animal General on Hudson

REFERRING VET
Dr. Zelinski

INVOICE
30722

DATE
3/10/23

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.

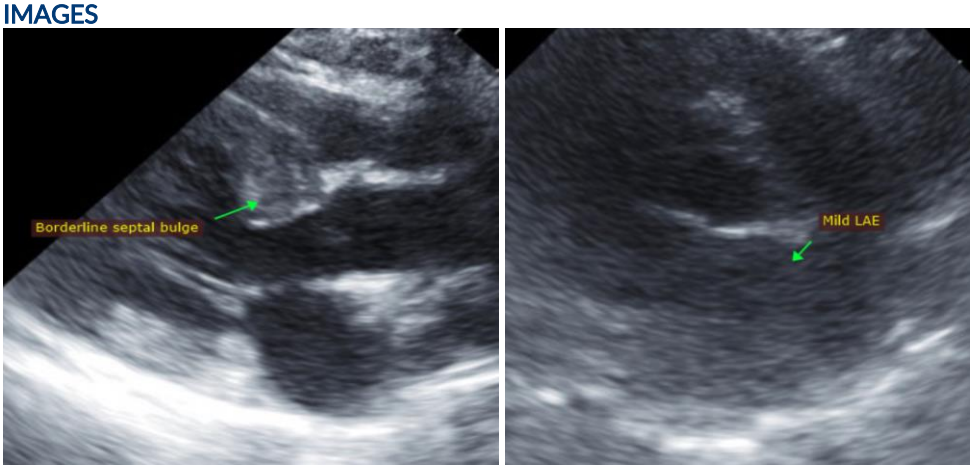
Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

PLAN

Monitor BP/T4 every 6 months, maintaining a stressed BP of <160mmHg.

A recheck echocardiogram is recommended in 6 months to screen for any evidence of progression, sooner if clinical issues arise.

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