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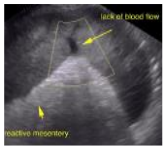
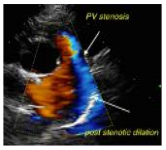
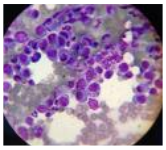
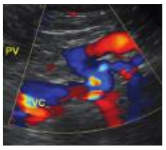
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Mr. Topaz Utech

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
13 years

WEIGHT
15lbs

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

IMAGING PERFORMED BY
Kelly Vazquez, CVT

HOSPITAL NAME
Marsh Animal Hospital

REFERRING VET
Dr. Milwicki

INVOICE
29858

DATE
3/27/23

PRESENTING CLINICAL SIGNS
History: Presents for cardiac murmur and history of severe asthma. No current meds. Bloods WNL.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Normal cardiac silhouette. Significant lower airway disease. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS
2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with a focal septal thickening; however, the remainder appears normal. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hyperechoic. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal with trivial MR. No TR. Blood flow through the RVOT is normal. The blood flow through the LVOT is normal on spectral doppler; however, an LVOT obstruction is suggested by color flow imaging. No AI. No pleural or pericardial effusion seen. No obvious cardiac tumors

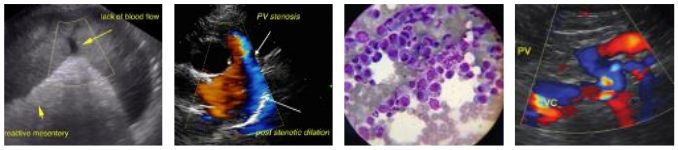
CARDIAC CHART

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	6.8	160	0.70	1.8	0.51	55	90
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	1.4	1.3	1.2		0.91	1.0	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 primary abnormality identified is focal septal hypertrophy with LV remodeling, which is concerning for early hypertrophic disease. The LA is normal which would indicate clinical stability. Serial echocardiography will be necessary to determine progression and clinical significance. Additionally, the murmur is due to a mild LVOT obstruction, which is secondary to the septal bulge. No treatment is warranted at this time. No additional issues are identified.

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, 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.



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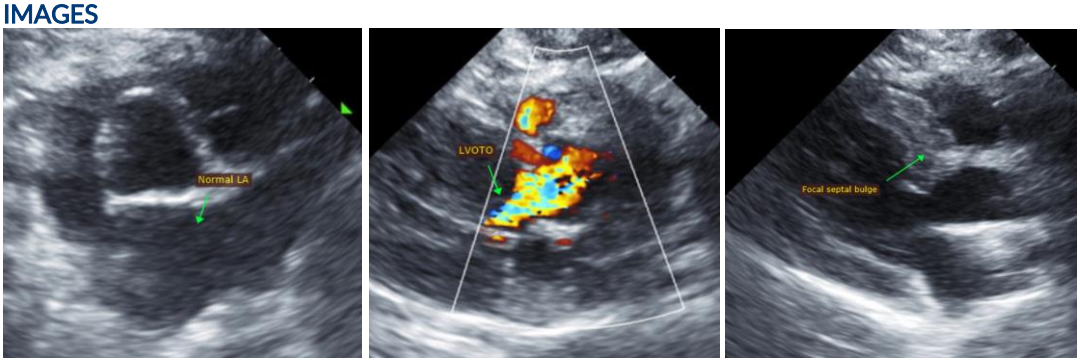
Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change). Prognosis is guarded prior to assessing for progression.

PLAN

A baseline BP and T4 are recommended.

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