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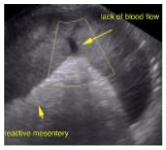
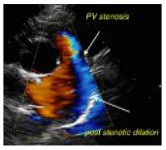
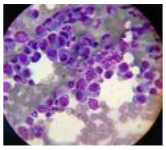
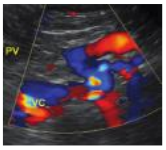
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Trey Parks

SPECIES
Feline

BREED
DMH

SEX
Male Neutered

AGE
13 years

WEIGHT
14.5lbs

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

IMAGING PERFORMED BY
Shari Reffi, CVT

HOSPITAL NAME
Newton Veterinary

REFERRING VET
Dr. Wyman-Greenwald

INVOICE
25022

DATE
6/28/22

PRESENTING CLINICAL SIGNS

History: Recheck echo. Grade II-III/VI systolic murmur. Having increase in RR/RE after exercise or increase activity. Sedation: 0.2mg/kg Torb on board for scan. No other current medications.
-Pertinent previous echo findings (2017 EL): LVH without LAE, consistent with HCM. IVSd: 0.75, LVWd: 0.95.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderately hypertrophied with extensive remodeling of the endocardium. There is a diffusely hyperechoic endocardium consistent with fibrosis. There is severe papillary muscle hypertrophy and remodeling. Decreased systolic function. The left atrium is severely enlarged with a horizontal component and auricular involvement. No obvious smoke. The right atrium is mildly dilated. The right ventricle appears affected as well, with diffuse mild hypertrophy. The mitral valve is normal, with normal mobility. No evidence of systolic anterior motion. There is no obvious mitral regurgitation present. There is no obvious tricuspid regurgitation. Blood flow through both the LVOT and RVOT is decreased in velocity. Moderate volume pericardial effusion. Pockets of pleural effusion seen. No obvious cardiac masses.

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	6.6	200	0.78	1.8	0.70	29	58
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	2.4	2.1	2.1		0.5	0.86	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

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis for LV hypertrophy once a patient is confirmed euthyroid and normotensive. Given the degree of thickening with RV involvement however, primary disease is suspected, particularly given the prior report. Hypertension and hyperthyroidism should still be ruled out as complicating factors. The left atrium is significantly enlarged, indicating high risk for spontaneous CHF and/or blood clot events. The right heart is also affected with mild right atrial enlargement. Significant systolic dysfunction has developed, indicated end-stage disease. Finally, there is significant pericardial and pleural effusion noted which is most likely cardiogenic in origin. PCE in cats with CHF rarely requires removal; however, if the patient experiences signs of further decompensation the volume should be reassessed as pericardiocentesis may become necessary to improve stability. There is also pleural effusion which may warrant removal, depending on patients' stability.

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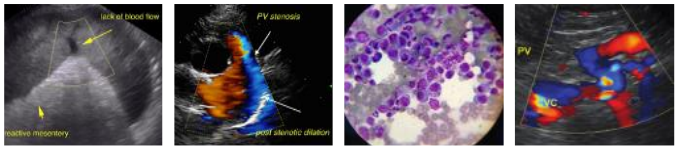

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Immediate full lifelong cardiac supportive medications are recommended as below. If the patient is significantly tachypneic in hospital, a dose of injectable Lasix may be helpful (2mg/kg) +/- recommend referral for overnight supportive care/oxygen therapy. Finally baseline chest radiographs and blood pressure are highly recommended if not recently performed.

The mean survival time for cats with CHF is 8-12 months, however most cats are able to maintain a good quality of life on medications. Patient will always be at high risk for recurrent episodes of CHF and development of blood clots in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home.

Avoid anesthesia, steroids and fluid therapy unless absolutely necessary in the future.

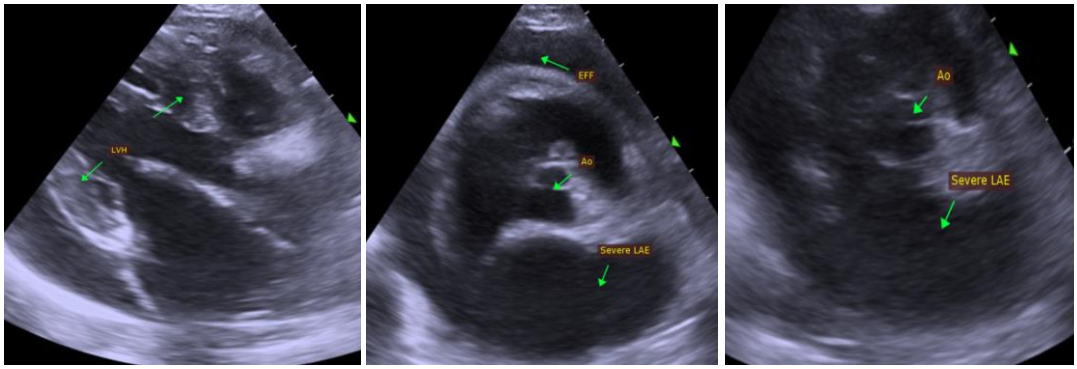
PLAN

Screening BP/T4. Baseline CXR is recommended. Consider injectable Lasix dose/hospitalization if indicated. Consider thoracocentesis if unstable. Administer Lasix 1-2mg/kg PO q12h. Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges and should be coated in entirety or administer in a gel cap). Institute Pimobendan 1.25mg PO q12h. If any decline, immediate reevaluation of PCE is recommended to determine if a tap is necessary.

Monitor renal values, BP and effusion status in 1-2 weeks. If normotensive and doing well at that time, reinstitute vasodilator ACE-I (benazepril or enalapril) 0.5mg/kg PO q12h. Monitor BP and renal values every 3-4 months lifelong.

A recheck echocardiogram is recommended in 4-6 months to assess 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