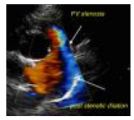
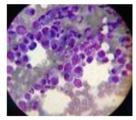
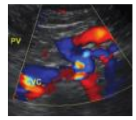

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PATIENT

Chester Rug

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

13 years

WEIGHT

10.88lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Everhart Veterinary Center

REFERRING VET

Not provided

INVOICE

20688

DATE

8/23/21

PRESENTING CLINICAL SIGNS

History: History of hypertrophic cardiomyopathy, diagnosed and initially medicated by AAVEC and CVCA. Has been refilling meds through EVH. 8/20/21 recurrent pulmonary edema. Labs showed mild azotemia (after initial dose of injectable Lasix). Pet stable and improved overnight after discharge with new medication doses.
-Pertinent abnormal PE/Chem/CBC/UA Results: (8/20/21) Crea 2.5, BUN 39. 4/12/21: crea 2, BUN 30.
-Radiographs: Pulmonary edema, cardiomegaly.
-Current medications: Pimobendan 1.5mg BID since April 2021, Furosemide 6.25mg BID since April 2021. Recent increase both medications to TID during respiratory distress episode.
-Blood pressure: #2 tail cuff 170mmHg. BP report day of the scan was 120mmHg.
_pertinent previous echo findings (2/2021 CVCA): HCM with mild LVH, moderate LAE, moderate LVE,
-STAT: Not requested.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The average heart rate is 200bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. The PR interval is elongated consistent with 1st degree AV block. The QRS morphology is positive with normal dimension. MEA is shifted left. Occasional isolated VPCs. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus tachycardia with isolated VPCs. 1st degree AV block.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal with extensive remodeling of the endocardium. There is a diffusely hyperechoic endocardium consistent with fibrosis. The systolic function is severely depressed with mild LV dilation. There is papillary muscle remodeling. The left atrium is markedly dilated with evidence of intraatrial smoke. The right atrium is moderately dilated. The right ventricle appears affected as well, with mild diffuse hypertrophy. The mitral valve is normal, with normal mobility. No evidence of systolic anterior motion. There is trace central mitral regurgitation present secondary to SAM. There is mild tricuspid regurgitation. Blood flow through the LVOT and RVOT is decreased in velocity. No pericardial or pleural effusion. No obvious cardiac masses.

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	4.9	200	0.38	1.8	0.53	15	30
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	2.4	1.83		0.6	0.35	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

Burn out or end-stage hypertrophic cardiomyopathy (HCM) is suspected based upon prior available records. This indicates that the LV wall continues to decrease in thickness with a restrictive physiology developing. The systolic function was depressed previously; however, this does appear to have progressed as well. Additionally, there is a significant amount of smoke within the left atrium, putting the patient at high risk for a thromboembolic event. No additional issues are identified.

Given these findings, more aggressive cardiac support is recommended as below. Plavix was noted to potentially be an issue in the medical record; however, this is highly recommended if at all possible to administer (consider compounding if needed). The dose of Lasix is reasonable for this degree of disease (3.5mg/kg per day); however, if this is difficult to administer this can be divided twice daily. If the patient is doing well at this point, I would not necessarily change this as there is risk for worsening azotemia.

VPCs are noted on the ECG which are not surprising given the degree of disease and stressful examination. No treatment is indicated based upon what is seen here. This patient certainly has risk for collapse or sudden death going forward, which should be expressed to the owner. Additionally, the PR interval is longer than normal which may suggest impending AV block. For now, simple monitoring is advised.

It is important to note that this patient is considered end-stage and is at high risk for complications going forward. Our goal is to stabilize the situation for the short-term however, is typically poor going forward. Patient will always be at high risk for recurrent episodes of CHF development of blood clots, malignant arrhythmias and/or sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home. Avoid steroids and fluid therapy unless absolutely necessary in the future.

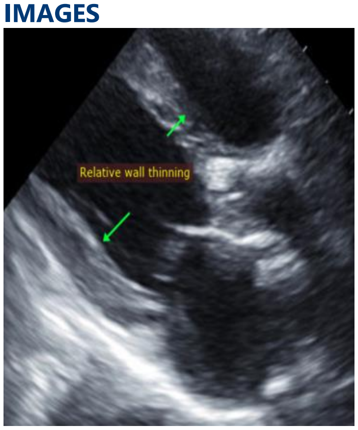
PLAN

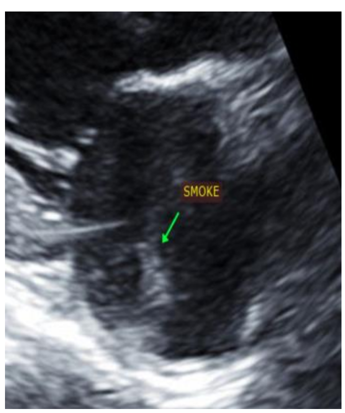
If able, continue Lasix and Pimobendan as prescribed. If necessary, can split into q12 dosing (Lasix: 12.5mg am, 6.25mg pm, Pimobendan: remove mid-day dose). If possible, administer blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (consider compounding if needed).

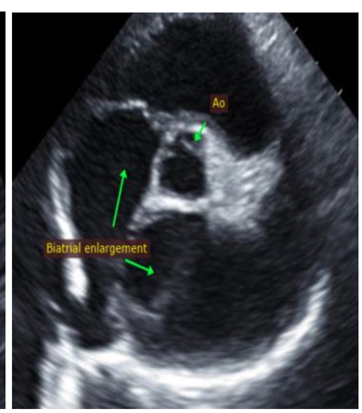
Monitor renal values every 3-4 months life-long.

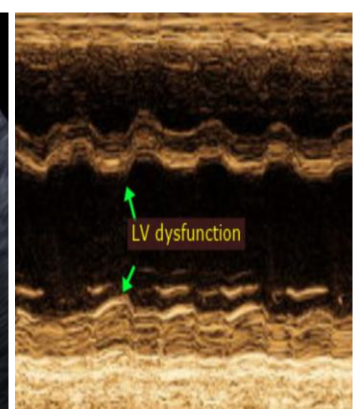
A recheck echocardiogram is recommended in 6 months to assess progression.

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
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Email: info@sonopath.com