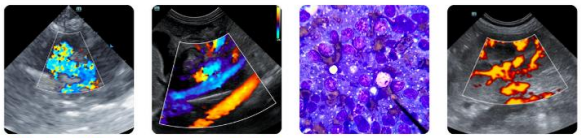


DATE

1.19.26

PATIENT

Norman Higgins

SPECIES

Feline

BREED

DLH

SEX

MN

AGE

7.1.13

WEIGHT

13.34lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

HOSPITAL NAME

Everhart VH

REFERRING VET

Dr. Menefee

INVOICE

46485

PRESENTING CLINICAL SIGNS

History: Presented on 1/19 in acute respiratory distress for the past 12 hours. On PE – grade 3/6 heart murmur (noted previously), increased respiratory effort with abdominal breathing. Mild pleural effusion noted on tFAST. History of chronic ALT elevations >1 yr
-Pertinent abnormal PE/Chem/CBC/UA Results: ALT ~220.
-Current medications: Furosemide 1mg/kg given 9:45 am, denamarin
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Requested.
-Imaging performed by: Stephanie Warga RDCS, RVT.

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental information only.

Cardiomegaly with evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with moderate hypertrophy overall. There is a diffusely hyperechoic endocardium consistent with fibrosis. There is moderate papillary muscle hypertrophy and remodeling. Adequate systolic function. Evidence of diastolic dysfunction. The left atrium is moderate to severely dilated with a horizontal component. No obvious smoke or thrombi seen. The right atrium is normal. The right ventricle appears normal. The mitral valve is normal in appearance, although intermittent SAM is suspected with a slightly increased LVOT velocity. Mild central mitral regurgitation present. Trace tricuspid regurgitation. Blood flow through the LVOT is mildly elevated in velocity. Blood flow through the RVOT is normal. Small volume pericardial effusion. Scant 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	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	6.1	NM	0.74	1.0	0.66	62	92
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	1.9	1.9		2.0	0.8	NM

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 once a patient is deemed normotensive and euthyroid. Both should be ruled out in this case as contributing factors. Regardless, what is seen

here is significant with LV hypertrophy and LA dilation. The left atrium is moderate to severely enlarged, indicating high risk for spontaneous CHF and/or blood clot events. Additionally, there is small volume pericardial and pleural effusion noted which is most consistent with congestion. PCE in cats with CHF rarely requires removal and diuretic therapy is certainly warranted. Finally, an intermittent LVOTO is suspected, which may support an obstructive form of disease. What is seen here is mild and does not warrant rate control therapy. No additional issues are identified.

Immediate full lifelong cardiac supportive medications are recommended as below. If the patient is or becomes tachypneic, a dose of injectable Lasix may be helpful (2mg/kg) +/- recommend referral for overnight supportive care/oxygen therapy. No arrhythmias are seen on the ECG with a normal sinus tachycardia.

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.

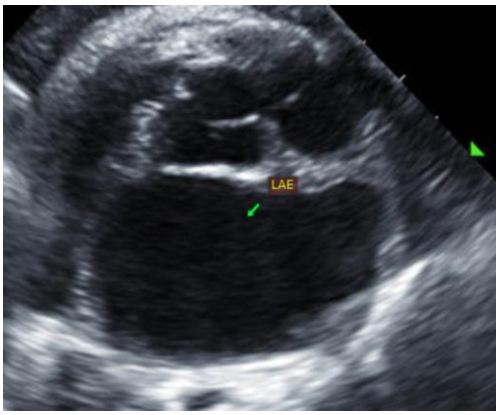
PLAN

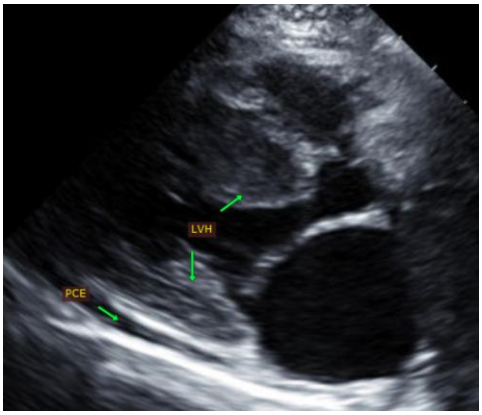
Screening BP/T4 once stable. Consider injectable Lasix dose/hospitalization if indicated. Administer Lasix 1-2mg/kg PO q12h. Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges and should be coated in entirety or administer in a gel cap). Institute Pimobendan 1.25mg PO q12h.

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 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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