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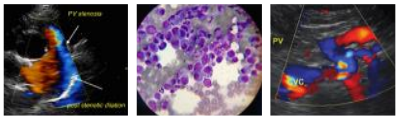

SonoPath
Clinical Sonography & Telecytology
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PATIENT
Munchin Wood

SPECIES
Feline

BREED
DSH

SEX
FS

AGE
2008

WEIGHT
8.9lbs

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

IMAGING PERFORMED BY
Andi Parkinson, RDMS

HOSPITAL NAME
Cat Hospital at Towson

REFERRING VET
Dr. Scarborough

INVOICE
22215

DATE
11/30/21

PRESENTING CLINICAL SIGNS

History: Inappetence x 2-3 months, no v/d o is aware of; has lost 2 lbs. over past 2 months; BAR, interactive. Dx with murmur grade II 09/15, has not progressed. Intermittent upper respiratory infections. Low grade anemia in 10/21 RBC 6.51 on routine labs.
Pertinent abnormal PE/Chem/CBC/UA Results: abdominal radiographs inconclusive, no masses or FB seen; lab work showed anemia worsening to 2.82, Hct 16.5, low end regeneration 3; chemistry unremarkable.
Current medications: Miratax QD, just started yesterday.
Sedation used: Not required to complete full diagnostic ultrasound.
Pertinent previous ultrasound results: No previous IntraPet scans.
STAT: Requested.

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

Cardiomegaly. Concern for impending CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderately hypertrophied with remodeling of the endocardium. Regions of irregularity. There is a diffusely hyperechoic endocardium consistent with fibrosis. Adequate systolic function. There is papillary muscle hypertrophy and remodeling. The left atrium is severely enlarged. No evidence of intraatrial smoke. The right atrium is normal. The right ventricle appears normal. The mitral valve is normal. No evidence of systolic anterior motion; however, a dynamic LVOTO is suspected on color flow imaging with a potential mid-LV obstruction. Mild eccentric mitral regurgitation present. There is mild tricuspid regurgitation. Blood flow through the LVOT is normal in velocity. Scant pericardial effusion. 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	4	NMy	0.70	1.45	0.79	52	94
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	2.0		1.4	NM	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 for LV hypertrophy once a patient is confirmed euthyroid and normotensive. Both should be considered in this case as contributing factors. Regardless, the degree of disease is significant with severe left atrial enlargement. This indicates a high risk for spontaneous CHF and/or blood clot events going forward. Mild MR with a suspect mid-LV obstruction is noted, which should be assessed in the future. Finally, there is scant pericardial effusion noted which is most likely cardiogenic in origin and is supportive of congestion. **Immediate full lifelong cardiac supportive medications are recommended as below**. If patient appears unstable, consider a dose of injectable Lasix (2mg/kg) +/- recommend referral for overnight supportive care/oxygen therapy.

It is important to note that these findings do not clearly explain the hematologic abnormalities or chronic inappetence. Recommend assess response to cardiac therapy, with further systemic evaluation pending response.

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/ior fluid therapy unless absolutely necessary in the future.

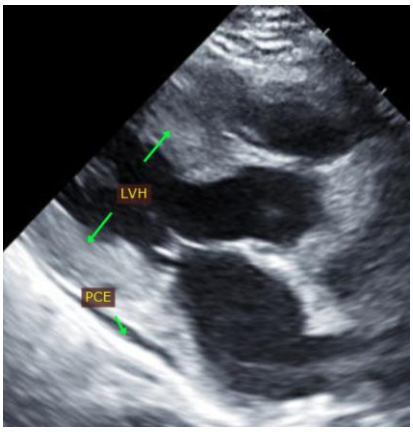
PLAN

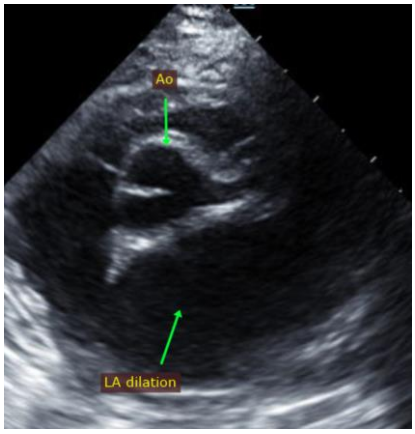
Consider injectable Lasix dose/hospitalization if indicated. Administer diuretic Lasix 1-2mg/kg PO q12h. Institute Pimobendan 1.25mg PO q12h. If able, institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges).

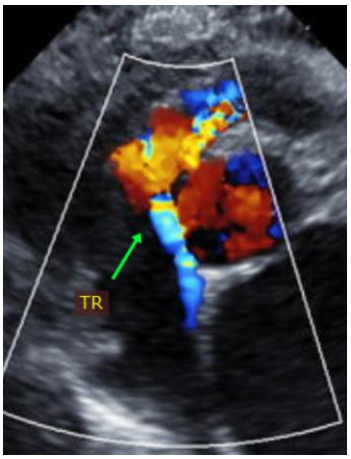
Monitor renal values and BP in 1-2 weeks. If doing well at that time and BP >130mmHg, institute vasodilator ACE-I (benazepril or enalapril) 0.5mg/kg PO BID. Monitor BP and renal values every 3-4 months lifelong.

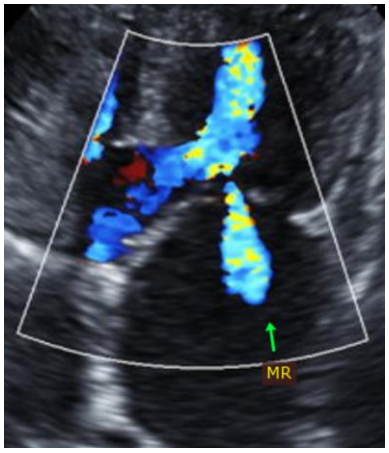
A recheck echocardiogram is recommended in 6 months to assess progression.

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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