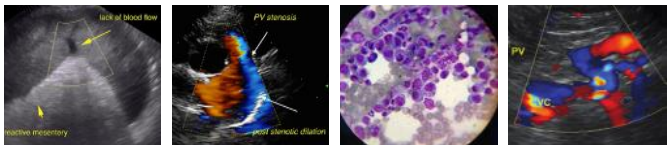
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Finnegan Schonberg

SPECIES

Feline

BREED

DMH

SEX

MN

AGE

10

WEIGHT

10lb

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Dr. Harmon

HOSPITAL NAME

Willamette Veterinary Hospital

REFERRING VET

Dr. Harmon

INVOICE

11085ag

DATE

07/10/2022

PRESENTING CLINICAL SIGNS

indoor/outdoor, anorexia since thursday, see at rDVM friday, labs out and SQ fluids administered

presented 7/9 in resp distress, no murmur, pleural effusion, no pericardial effusion

125ml chyle tapped from thorax on intake 7/9

prior to ECHO an additional 130ml chyle taped from thorax

no murmur or arrhythmia noted on intake

prior to ECHO intermittent gallop note

Abnormal PE/Chem/CBC/UA Results

rDVm labs 7/8: Antech Chem: NSF, PSL: NSF, CBC: Hct 36%, wbc 3.8, platlets 83, some clumping, estimated decreased. T4: elevated 4.5 (n 0.8-4.0)

UA: SG 1.046, pH 6.5, 2+ proteinuria, trace blood,

7/9 EPOC- BG 138H, K 2.7L, pH 7.44H, PCO2 30.8L, PO2 52.6H, iCa 1.01L, HCT 33%

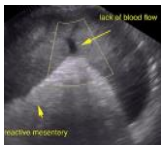
v-check BNP - abnormal >1500

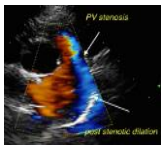
ULTRASONOGRAPHIC EXAMINATION OF THE HEART

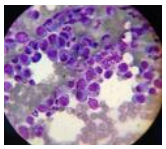
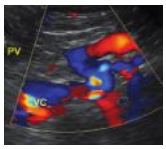
FELINE CARDIAC PARAMETERS	**BODY WEIGHT** (kg)	**HR** (BPM)	**IVSd** (cm)	**LVIDd** (cm)	**LVWd** (cm)	**FS** (%)	**EF** (%)
NORMAL PARAMETER	------	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		NM	0.50	1.3	0.55	38.5	72.1
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**LA/AO HEART BASE** (Sisson)	**LA** 2D 4-chamber long axis AS to FW (Sisson) (cm)		**LVOT VEL.** (m/s)	**RVOT VEL.** (m/s)	**IVRT** (m/)
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT		3.0	2.4				
Adapted from June Boon,Veterinary Echocardiography,1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

Cardiac Presentation

The left ventricular wall is remodeled with regions of asymmetry. Diffuse mildly hyperechoic endocardium consistent with fibrosis was present with concurrent remodeled papillary muscles. LV systolic function is adequate yet subjectively mildly decreased. LV and RV both exhibited normal subjective volume. The left atrium was severely dilated and bulbous in appearance with evidence of spontaneous contrast “smoke” present in the left atrial lumen. The right atrium appeared to be overtly normal in size. The mitral valve appeared to be mildly thickened with trace MR. No obvious TR. Subjectively blood flow through both the LVOT and RVOT exhibited systolic laminal flow. Mild volume





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pericardial effusion was present along with mild to moderate pleural effusion. No obvious cardiac tumors were observed.

ULTRASONOGRAPHIC FINDINGS

- Severe Unclassified CM exhibiting severe LA enlargement with evidence of spontaneous contrast and LV fibrosis
- Mild pericardial / moderate pleural effusion

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The finding of severe LA enlargement in the face of normal LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM), however burn-out or end-stage HCM can also have this appearance. There is also significant LV remodeling and fibrosis which indicates diastolic dysfunction in addition to systolic dysfunction. Finally there is evidence of early thrombus formation, putting this patient at exceedingly high risk for an aortic thromboembolism (ATE) going forward. Cats who develop an ATE unfortunately carry a poor to grave prognosis, with those who survive the initial clot event often succumbing within weeks to a recurrent thrombus and/or CHF. No overt arrhythmia.

Regardless of categorical classification, this degree of atrial dilation confirms the diagnosis is congestive heart failure and the likely cause of the pericardial / pleural chylous effusion and lifelong medications are warranted as below. The long-term prognosis is poor; however, medical therapy is recommended and if tolerated with assessment of clinical response.

Going forward there will always remain risk for episodes of CHF and development of blood clots and/or sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for progression to CHF at home. Tolerance of medications in cats is always of concern, and blood values must be watched carefully. Elective anesthesia should be avoided.

Continue hospitalization and injectable Lasix until patient is stabilized. Thoracocentesis could be considered. Discharge on the following: administer Lasix 1-2mg/kg PO q12h, administer Clopidogrel (Plavix) 75mg tablets; give 1⁄4 tab orally once daily (NOTE: this medication is very bitter on the cut edges), administer Pimobendan (off label use) 1.25mg PO q12h.

Recheck renal values, BP and ECG in 1-2 weeks to determine if rate control is needed. Recheck renal values and BP every 3-4 months life-long. A recheck echocardiogram is recommended in 4-6 months to assess progression.

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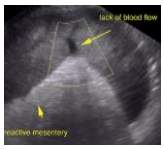
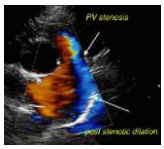
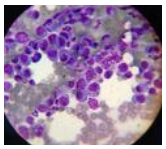
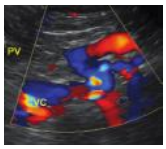

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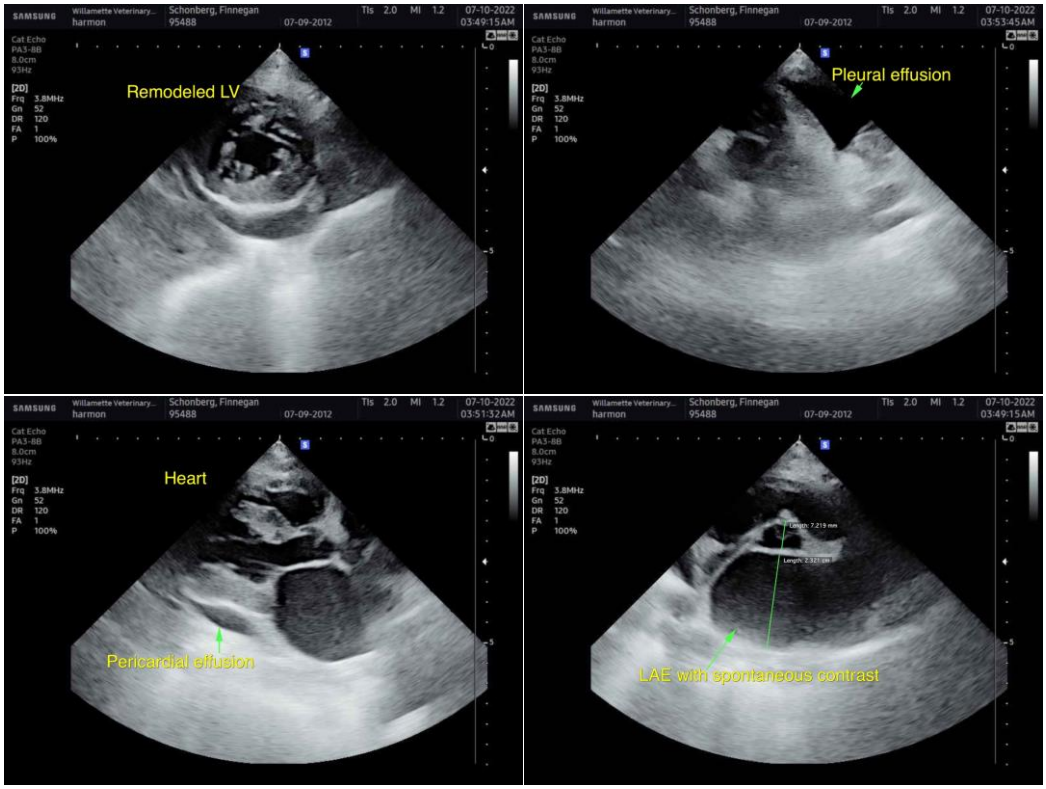

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com