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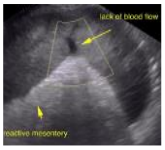
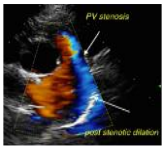
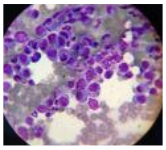
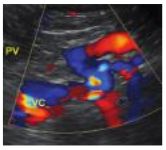
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Gracie Metzler

SPECIES

Feline

BREED

DSH

SEX

FS

AGE

8 years

WEIGHT

10.1 lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton Veterinary Hospital

REFERRING VET

Dr. Chun

INVOICE

20861

DATE

9/2/21

PRESENTING CLINICAL SIGNS

History: Dyspnea x 1.5wks. Hx of pleural effusion, tachycardia, heart murmur.
Current meds: Lasix 12.5mg 1/2 T bid.
Abnormal PE/Chem/CBC/UA Results: Snap BNP abnormal, glucose 238, lym 0.6

ECHOCARDIOGRAM FINDINGS **Limited images due to instability*

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is asymmetric, with free wall thickening. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled and mildly hypertrophied. Systolic function is adequate. The left atrium is severely dilated and bulbous in appearance. No obvious smoke in the LA. Mild central mitral and trace tricuspid regurgitation. The right atrium is mild to moderately dilated with no obvious smoke. The right ventricle is mildly enlarged. Blood flow through the LVOT and RVOT are decreased in velocity. No significant pericardial effusion. Large volume pleural effusion.

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	4.5	NM	0.55	1.7	0.8	54	90
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	1.94	1.96	1.9		0.5	0.5	NM

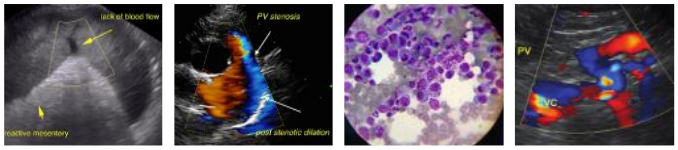
**Note: All measurements based upon multi-modal images and methods. An average value is reported.*
Adapted from June Boon, Veterinary Echocardiography,1998
Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The finding of significant biatrial enlargement in the face of asymmetrically increased LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM), however burn-out or end-stage HCM can also have this appearance. Significant biatrial dilation is present, indicating high risk for complications. There is also significant LV remodeling and fibrosis which indicates severe diastolic dysfunction. Most importantly there is large volume pleural effusion present, indicating an unstable patient.

It is important to note that imaging is limited at this time, and an extensive evaluation is not performed Regardless of categorical classification, this degree of atrial dilation confirms the effusion is cardiac in origin and lifelong medications are warranted as below. This patient likely requires hospitalization and immediate thoracocentesis/O2 therapy due to reported instability.

Assuming the patient is able to be stabilized, the long-term prognosis is poor even with medications; however, most cats are able to maintain a good quality of life for some time on medications if tolerated. There will always remain risk for episodes of CHF and development of



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blood clots in the future. Patient will always be at risk for recurrent CHF, development of blood clots and/or malignant arrhythmia/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 geriatric cats is always of concern, and blood values must be watched carefully. Elective anesthesia should be avoided.

PLAN

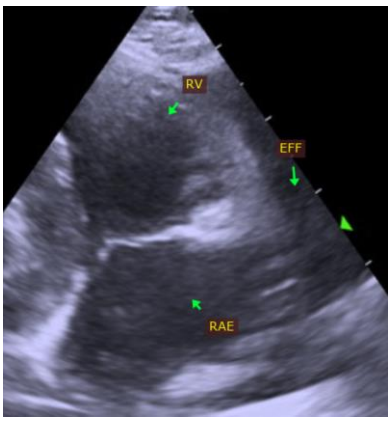
Immediate therapeutic thoracocentesis. Consider referral for hospitalization. In hospital: Supportive care through oxygen support, monitoring renal values, IV Lasix therapy (bolus or CRI) and oral medications.

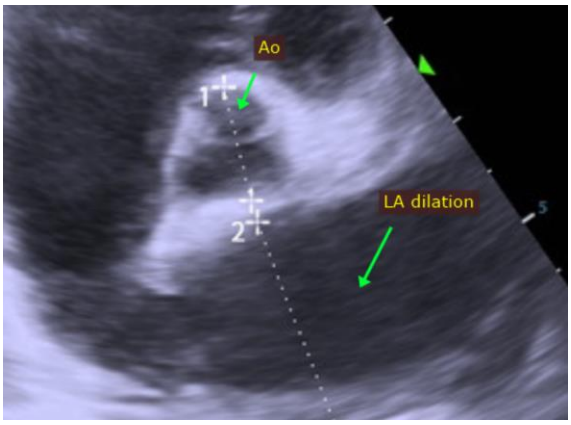
Discharge on oral medications: Institute Plavix 18.75mg PO SID (NOTE: this medication is very bitter and may causing foaming at the mouth- coat in entirety). Lasix 1-2mg/kg PO q8h for 3 days, then decrease to q12h if doing well. Institute Pimobendan 1.25mg PO q12h.

Once stabilized/discharged, recheck renal values and BP in 10-14 days, then every 3-4 months lifelong. Once deemed normotensive with a BP >130mmHg doing well and able to be easily medicated, consider addition of an ACEI 0.5mg/kg PO q12h. Monitor at home for any progressive labored breathing and/or signs of clot recurrence (limb paralysis, neurologic changes, etc.).

Recheck echocardiogram in 6 months once stable on oral medications to reassess for 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