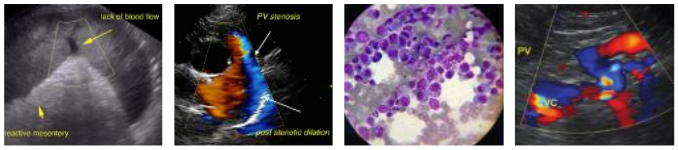
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT
Tigger Genz

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
6 years

WEIGHT
11.5lbs

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

IMAGING PERFORMED BY
Emily Kalenius, DVM

HOSPITAL NAME
Willamette Veterinary Hospital

REFERRING VET
Dr. Kalenius

INVOICE
21327

DATE
10/4/21

PRESENTING CLINICAL SIGNS

History: Transfer from rDVM for UO 10/1. Was azotemic on presentation and has been catheterized and on IV fluids since that time. This morning gallop rhythm and tachypnea noted on exam 2 mg/kg furosemide IV given after echo completed
Abnormal PE/Chem/CBC/UA Results: EPOC - HCT 22% **suspect flea anemia** iCa 1.01, Creat 13.61, BUN > 120, BG 173, K 8.0, Na 137, pH 7.181 Urinalysis - usg 1.022, red, rbc >50/hpf, no bacteria, no crystals 10/2 EPOC 2pm: HCT 27% / BUN 25 / CRE 1.12 10/3 developed fever, purulent preputial discharge EPOC CL 131, BUN 57, CRE 2.21, HCT 19%/ glucose 191 10/4 EPOC - hct 22, hypocalcemia 1.17, hyperglycemia 134, hypokalemia 3.5, bun 15, creat 0.95

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is mildly remodeled. The LV chamber is not significantly dilated. There is diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are remodeled. No significant LV hypertrophy. The LV systolic function is adequate. The left atrium is moderately dilated and bulbous in appearance; not reflected in LA:Ao. The right atrium is moderately dilated. The mitral valve is normal, no obvious MR. Blood flow through both the LVOT and RVOT is normal in velocity. No obvious TR. Scant pericardial effusion. Small volume pleural effusion. No obvious cardiac tumors.

CARDIAC CHART

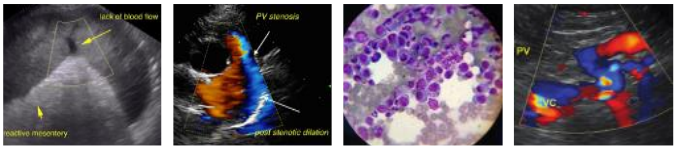
FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	5	204	0.44	1.4	0.54	50	94
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO 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	2.1	1.4	1.5		1.0	1.0	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 biatrial enlargement in the face of normal LV wall thickness is most consistent with Unclassified Cardiomyopathy (UCM). It is likely that at least some degree of atrial enlargement is secondary to acute fluid overload/intolerance, making it difficult to know what degree of underlying disease is present. There is also significant LV remodeling and fibrosis which indicates diastolic dysfunction, which in itself is enough to lead to fluid overload. No additional issues are identified.

Regardless of classification, the finding of biatrial dilation confirms the origin of the effusions is secondary to cardiac intolerance of fluid therapy. My assumption is this was a case of subclinical disease that unfortunately led to fluid intolerance. Continued cardiac supportive medications are



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warranted as below including Pimobendan (off-label use) and Plavix to decrease risk of thrombotic events in the future. Use of Lasix should be based upon clinical status (ie if still tachypneic it should be continued), with the minimum amount possible being administered given systemic issues. Ideally discontinuing the diuretic alone will help stabilize the situation; although close monitoring of clinical hydration status and RR/RE must be balanced.

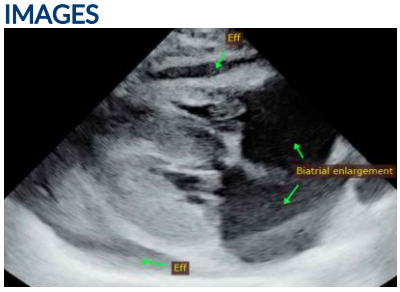
It is important to note that this patient's cardiac intolerance will likely limit treatment of urinary disease going forward and the overall prognosis is guarded. Cautious use of fluids in the future may be necessary, with close monitoring for evidence of intolerance. Patient will always remain at risk for recurrent episodes of CHF/fluid intolerance 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.

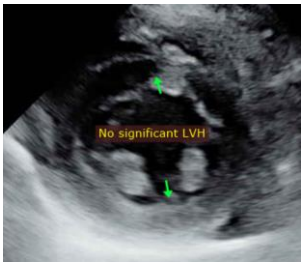
PLAN

Institute blood thinner Clopidogrel (Plavix) 75mg tablets; give ¼ tab orally once daily (NOTE: this medication is very bitter on the cut edges; coat in entirety). Institute Pimobendan 1.25mg PO q12h. Depending on clinical status/timeline and fluid therapy needs, ideally utilize minimum Lasix/discontinue diuretic as discussed.

A recheck echocardiogram is recommended in 2-3 months once stabilized to reassess atrial dimensions independent of fluids and need for continued medications. A full echocardiogram is recommended in 6 months.

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. 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