



PATIENT

Maui Reiber

SPECIES

Feline

BREED

DLH

SEX

Female Spayed

AGE

16 years

WEIGHT

11.75lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Gortowski

INVOICE

29195

DATE

2/22/23

PRESENTING CLINICAL SIGNS

History: Presented in December for lethargy and behavioral changes. Gallop heart sounds were auscultated; work up declined. Presented in February for dyspnea and occasional open mouth breathing. Presumptive congestive heart failure with pleural effusion was diagnosed and treated with a thoracocentesis (removed 130 mL), 2 mg/kg dose of furosemide IV, and supplemental oxygen. Patient responded to treatment and was sent home with 1.2 mg/kg furosemide PO BID and 0.12 mg/kg amlodipine PO SID. Previously diagnosed with hyperthyroidism and well controlled with methimazole tablets.

-Abnormal PE/Chem/CBC/UA Results: Exam - Mildly over conditioned, cardiac gallop sounds, moderate dyspnea with no thoracic sounds heard when auscultating ventral thorax, mild diffuse muscle wasting, moderate gas distention of abdomen. Chemistry (performed in December) - All findings within normal limits Urinalysis (performed in December) - Unremarkable CBC (December) - Eosinophilia (2987, RR: 0-1000) CBC (January after deworming and diet trial) - Eosinophils in normal range (1457, RR: 0-1520) CBC (February) - Eosinophilia (0.81, RR:0.02-0.49) ProBNP SNAP (February) - Elevated Whole body radiographs (February) - Pleural effusion. Alveolar pattern concentrated in middle to cranial lung lobes causing border effacement of cardiac silhouette on lateral views. Fluid analysis of thoracic fluid (February) - Protein rich transudate (TP = 2.4). Completely acellular. Opaque fluid with white tinge.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is mildly hyperechoic endocardium consistent with fibrosis. The LV is mildly dilated and spherical. Systolic function is markedly depressed with evidence of diastolic dysfunction as well. The papillary muscles are mildly remodeled. The left atrium and auricle are severely dilated. No obvious spontaneous contrast; no obvious thrombus. Mild central MR due to annular stretch. The right ventricle is also affected, with diffuse fibrosis and remodeling. Severe RA dilation. Mild central TR; velocity consistent with early PAH. Blood flow through the RVOT and LVOT is low normal velocity. No significant pericardial effusion. Large 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)	LWVd (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	5.3	NM	0.42	1.8	0.47	20	36
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	2.5	2.1		0.95	0.8	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

**PATIENT**

Maui Reiber

The finding of severe biatrial enlargement in the face of decreased LV wall thickness and systolic dysfunction is most consistent with Restrictive Cardiomyopathy (RCM); however, DCM or some historical infectious or inflammatory insult to the myocardium cannot be definitively ruled out. The biatrial dilation is causing insufficiency of both AV valves, and significant systolic dysfunction has developed.

SPECIES

Feline

The finding of this degree of biatrial dilation confirms the origin of the tachypnea and effusion is spontaneous congestive heart failure, and lifelong medications are warranted as below. This patient is at high risk for thromboembolic events regardless of medications and this should be expressed to the owner (monitor for neurologic change, acute paralysis/lameness, etc.). **Consider hospitalization for continued stabilization, oxygen and Lasix therapy.** A thoracocentesis should also be performed due to effusion and instability. The prognosis is **poor to grave**, with a mean survival time for cats with CHF <8-12 months; however, most are able to maintain a good quality of life on medications if able to be stabilized **and medications tolerated**. Renal function is of the utmost importance in a senior cat, and renal failure in the face of CHF would be a reasonable time to consider euthanasia. There will always remain risk for recurrent episodes of CHF, development of blood clots, arrhythmias, and/or sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent CHF at home.

BREED

DLH

SEX

Female Spayed

AGE

16 years

WEIGHT

11.75lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

PLAN

Consider thoracocentesis, hospitalization, oxygen, IV diuretic in hospital until stabilized due to effusion. Oral medications: furosemide 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). Institute Pimobendan (off label use) 1.25mg PO q12h. If able, institute Spironolactone 6.25mg PO q12h.

Once stabilized, eating well at home and BP >130mmHg, consider addition of vasodilator ACE-I (benazepril or enalapril) 0.5mg/kg PO q12h. If azotemia develops and affects QOL, euthanasia should be elected.

IMAGING PERFORMED BY

Tom McNeill

Recheck renal values in 10-14 days to ensure tolerance of medications, then every 3-4 months lifelong.

A recheck echocardiogram is recommended in 4-6 months to assess for progression.

HOSPITAL NAME

SVS Imaging CT

IMAGES**REFERRING VET**

Dr. Gortowski

INVOICE

29195

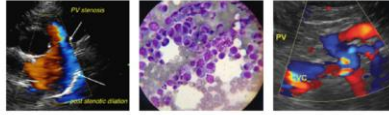
The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

DATE

2/22/23

IMAGING PERFORMED BY

svsmobileimaging.com 309 - 737 - 3070



Clinical Sonography & Telectology

EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Maui Reiber

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.

SPECIES

Feline

Maggie Machen Lamy, DVM

Diplomate of the American College of Veterinary Internal Medicine (Cardiology)

info@sonopath.com

BREED

DLH

SEX

Female Spayed

AGE

16 years

WEIGHT

11.75lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

**IMAGING
PERFORMED BY**

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Gortowski

INVOICE

29195

DATE

2/22/23