



PATIENT

Shadow Kuik

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

15 years

WEIGHT

9.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM DACVIM
(Cardiology)

IMAGING PERFORMED BY

Crystal Hill, RVT

HOSPITAL NAME

West Park Animal
Hospital

REFERRING VET

Dr. Rice

INVOICE

27149

DATE

10/27/22

PRESENTING CLINICAL SIGNS

History: Weight loss - 1 kg in 8 months. Anorexia. 1 week duration Tachycardia > 200, Tachypnea ~ 40 Muscle wasting. No meds currently. ALP high, TProt low, Phosphorus high, Hematocrit low, Hemoglobin low, High WBCs, high mono, high lymph, elevated total T4, low calcium.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled and hyperechoic. The endocardium also appears remodeled. The left atrium is mildly enlarged. The right atrium is mildly dilated. The right ventricle appears normal. The mitral valve is normal in structure and mobility. Blood flow through both the LVOT and RVOT is normal in velocity. No pericardial effusion. Moderate volume pleural effusion. No obvious cardiac tumors. Tachycardia throughout.

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	4.1	250	0.47	1.54	0.48	41	74
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	1.6	1.4	1.4		1.5	1.6	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 mild biatrial dilation in the face of normal LV wall thickness may suggest Unclassified Cardiomyopathy (UCM); however, tachycardia-induced cardiomyopathy should be considered in light of the elevated HR and presumably uncontrolled hyperthyroidism. There is normal wall thickness noted today, ruling out typical chronic hypertrophic disease. No additional issues are identified.

The patient is also presumed to be a poorly controlled hyperthyroid, and the resultant tachycardia may be contributing to development of effusion and mild LA dilation. What is unusual is atria are only mildly dilated, which would typically confer a low risk for complication. Additionally, the patient has significant systemic/hematologic abnormalities and other possible explanations for effusion should be ruled out (ie such as neoplasia). **A diagnostic thoracocentesis is strongly recommended.** If no cause for the effusion is identified, low dose Lasix may be warranted until the hematologic abnormalities/T4 are



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controlled, in addition to Atenolol if the HR is persistently elevated due to hyperthyroidism. Going forward, once the T4 is controlled we may be able to wean off cardiac medications depending on response. Controlling the thyroid ASAP is also clearly indicated.

SPECIES

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Going forward, there may remain risk for recurrent CHF, development of blood clots, and/or malignant arrhythmias/sudden death in the future. Monitoring of sleeping breathing rates at home is recommended as the best way to screen for recurrent/impending CHF at home.

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Monitor at home for any progressive labored breathing and/or signs of clot recurrence (limb paralysis, neurologic changes, etc.).

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PLAN

Diagnostic thoracocentesis is strongly recommended. If modified transudate is diagnosed and no alternative explanation for the effusion is identified such as neoplasia, institute Lasix 1mg/kg PO q12h. Initiate thyroid medication ASAP, pending IM consultation and systemic results. A baseline ECG is recommended if possible. Assuming the HR is documented to be persistently elevated (>220bpm in hospital), consider low dose atenolol until the thyroid is controlled. Wean as able.

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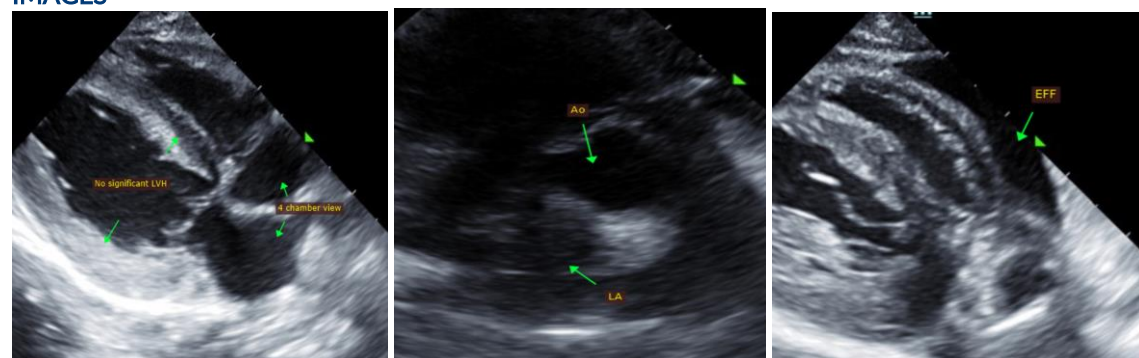
Recheck renal values, HR and BP in 10-14 days, then every 3-4 months lifelong. Target BP is <160mmHg in hospital.

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Recheck echocardiogram in 6 months once stable on oral medications to assess for progression.

IMAGES



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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.

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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.

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