



**PATIENT**

Biggie Paws Dangol

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Male Neutered

**AGE**

2 years

**WEIGHT**

9.5lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**IMAGING PERFORMED BY**

Jenna Walsh, CVT

**HOSPITAL NAME**

Wilvet of Salem

**REFERRING VET**

Dr. Gardner

**INVOICE**

27594

**DATE**

11/21/22

**PRESENTING CLINICAL SIGNS**

History: Presented in respiratory distress. BP: 128mmHg.  
 -Current Medications (In hospital 11/20): Cerenia 1mg/kg @ 7pm; Lasix 2mg/kg @ 4pm, 5pm; Torb 0.2mg/kg @ 3pm, 4pm; Lasix CRI 0.5mg/kg/h started 7pm  
 -CXR report: Cardiomegaly with CHF.

**RADIOGRAPHIC FINDINGS** \*NOTE: Images submitted for supplemental cardiac information only.  
 Cardiomegaly with concern for CHF.

**ELECTROCARDIOGRAPHIC FINDINGS** \*Note: Single lead ECGs are evaluated as a rhythm strip.  
 Morphology/MEA cannot be definitively commented on.

A single lead ECG is available; 50mm/s, 20mm/mV. The average heart rate is 200bpm with a regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P and QRS morphologies are positive. No ectopic beats, pauses or other dysrhythmias observed.  
 ECG diagnosis: Normal sinus rhythm with respiratory variation.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular is normal in dimension with a focal septal thickening. Normal LV chamber size. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle remodeling. The right ventricle is subjectively normal in size and morphology. There is no left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. No TR. Normal LVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present. No MR. There is scant volume pericardial effusion noted. No pleural effusion appreciated. 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	4.3	193	0.69	1.38	0.44	35	68
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	1.4	1.3	1.2		0.6	0.9	NM
<p>*Note: All measurements based upon multi-modal images and methods. An average value is reported.            Adapted from June Boon, Veterinary Echocardiography, 1998            Abbott J &amp; 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.</p>							

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis, once hypertension and hyperthyroidism have been assessed. In a 2-year-old cat, primary disease is suspected. That being said, **the degree of abnormality is mild with a focal septal thickening.** A normal variant cannot be ruled out prior to monitoring for progression. Of more importance, there is no left or



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right atrial enlargement present, indicating low risk for complication at this time. No obvious additional structural issues are identified and the ECG is unremarkable.

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These findings would suggest that CHF is unlikely in this case. That being said in reviewing the radiographs, they certainly do appear consistent with CHF and there is residual pericardial effusion seen here. We must also consider the history and timeline in this case, as 24 hours have passed since the radiographs were taken and aggressive Lasix therapy has been administered. It is possible that some degree of chamber enlargement was previously present that has now been decreased due to therapy. That being said, it is highly unlikely that the patient went from severe disease to normal in the course of 24 hours. **The most important consideration is response to therapy** and if the patient has improved on Lasix, I would certainly continue it going forward. If the patient has lingering respiratory distress however, repeat chest radiographs for serial comparison is strongly recommended, in light of the echo findings. Pericardial effusion may or may not be cardiogenic in origin, for the same reasons discussed above. Consider covering all bases with antibiotic therapy as well. Going forward, reassessing the LV and atrial dimensions in the future is recommended once stabilized to reestablish a baseline.

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If confirmed, the mean survival time for cats with CHF is 8-12 months, however most are able to maintain a good quality of life on medications. Patient will always remain at high risk for recurrent episodes of CHF 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.

**WEIGHT**

9.5lbs

**PLAN**

If the patient has responded entirely to Lasix therapy, continue 1-2mg/kg PO q12h at time of discharge. If there is any question on response to therapy, **highly recommend repeat chest radiographs for a Radiologist review for comparison.** Consider ancillary causes of respiratory distress and pericardial effusion, including hemorrhage, infection, etc.

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A brief recheck echocardiogram is recommended after stabilization (i.e., in 2-4 weeks) to reestablish a baseline.

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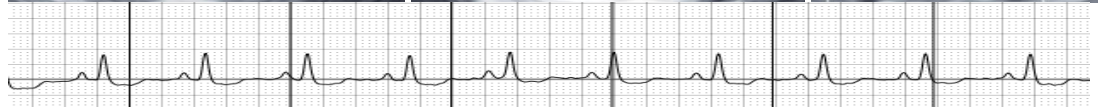
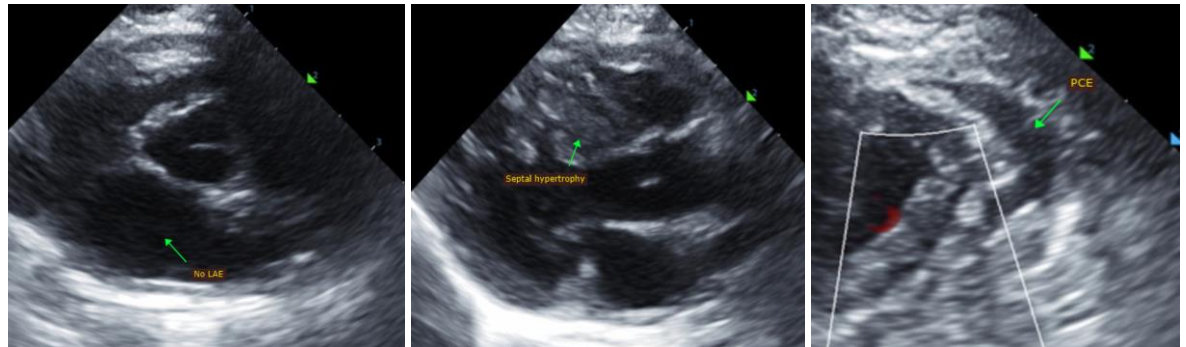
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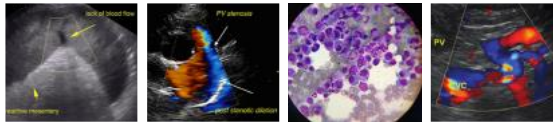
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**IMAGES**



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.



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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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