


**PATIENT**

Kismet Cherry

**SPECIES**

Feline

**BREED**

DSH

**SEX**

FS

**AGE**

15yr

**WEIGHT**

8.6lb

**PRESENTING CLINICAL SIGNS**

subjective cardiomegaly with rounding of cardiac apex; concerning for cardiomyopathies; pleural effusion, mild pulmonary infiltrates. Hx of asthma, was on depo and pred. splenic nodule noted, hepatomegaly on rads. labored breathing. Lasix injection given.

Abnormal PE/Chem/CBC/UA Results: nsf on BW from 3 weeks ago

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		227	0.40	1.61	0.45	28	58
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT		1.75	1.7		0.5		
Adapted from June Boon, Veterinary Echocardiography, 1998							
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

Newton VH

**REFERRING VET**

Dr. Kim

**INVOICE**

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**Cardiac Presentation**

The left ventricular wall was mildly remodeled with regions of asymmetry. Subtle increased endocardium echogenicity which may suggest fibrosis was present. Mildly prominent to remodeled papillary muscles were present. LV systolic function was mildly decreased. LV and RV were both borderline enlarged. The left atrium was mildly dilated to bulbous in appearance with anechoic content. The right atrium exhibited mild enlargement similar to the LA with anechoic content. The mitral valve was normal without evidence of MR on Doppler. No obvious TR was present. Blood flow through both the LVOT and RVOT exhibited systolic laminar flow and mild decreased measured RVOT velocity. Scant pericardial effusion was present. No overt evidence of concurrent pleural effusion was noted. No evidence of cardiac tumors.

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Focal cortical infarct present in the lateral left kidney. The left kidney measured 4.1 cm in length. The right kidney measured 3.8 cm in length.



<b>PATIENT</b>	The area of the aortic trifurcation was free of pathology.
Kismet Cherry	<b>Adrenal Glands</b>
<b>SPECIES</b>	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.42 cm width. No overt pathology in the area of the right adrenal gland.
Feline	<b>Spleen</b>
<b>BREED</b>	The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.
DSH	
<b>SEX</b>	<b>Liver</b>
FS	The liver was subjectively mildly enlarged in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
<b>AGE</b>	
15yr	<b>Gastrointestinal</b>
<b>WEIGHT</b>	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.
8.6lb	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.
<b>INTERPRETED BY</b>	Normal visible colon wall layers were present with apparent formed feces in lumen.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>Pancreas</b>
<b>IMAGING PERFORMED BY</b>	The pancreas was normal in size and contour with heterogeneous to mildly hypoechoic parenchyma compared to adjacent omentum, likely consistent with age related changes and considered incidental. No signs of active inflammation or neoplasia.
Diane McFadden	<b>Free Abdomen</b>
<b>HOSPITAL NAME</b>	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
Newton VH	<b>ULTRASONOGRAPHIC FINDINGS</b>
<b>REFERRING VET</b>	<ul style="list-style-type: none"> <li>• Unclassified cardiomyopathy</li> <li>• Scant pericardial effusion</li> <li>• Bilateral chronic renal changes with left kidney infarct</li> <li>• Mild non-congestive hepatomegaly-subjectively benign</li> <li>• Mildly prominent to hypoechoic pancreas-patient/age related variant, potential for low grade inflammation</li> </ul>
Dr. Kim	
<b>INVOICE</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
12249ag	Although there is no evidence of significant left or right heart chamber enlargement, the overall cardiac presentation is most consistent with unclassified cardiomyopathy. The mild biatrial enlargement with normal wall thickness is suggestive of likely cardiogenic pericardial effusion with some cardiogenic
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contribution to the patient's respiratory abnormalities. However, a multifactorial component to the respiratory disease given the patient history is possible. Hospitalization with as needed respiratory support and injectable Lasix until the patient is stable is warranted. Lasix 1-2 mg/kg PO BID +/- clopidogrel 75 mg tab ¼ PO SID +/- off label Pimobendan 1.25 mg PO BID is warranted. Monitoring of renal values, systemic BP +/- ECG if evidence of arrhythmia is recommended. A recheck echocardiogram is suggested in 6-8 weeks, sooner if progressive clinical signs of CHF are noted. A guarded long term prognosis is indicated.

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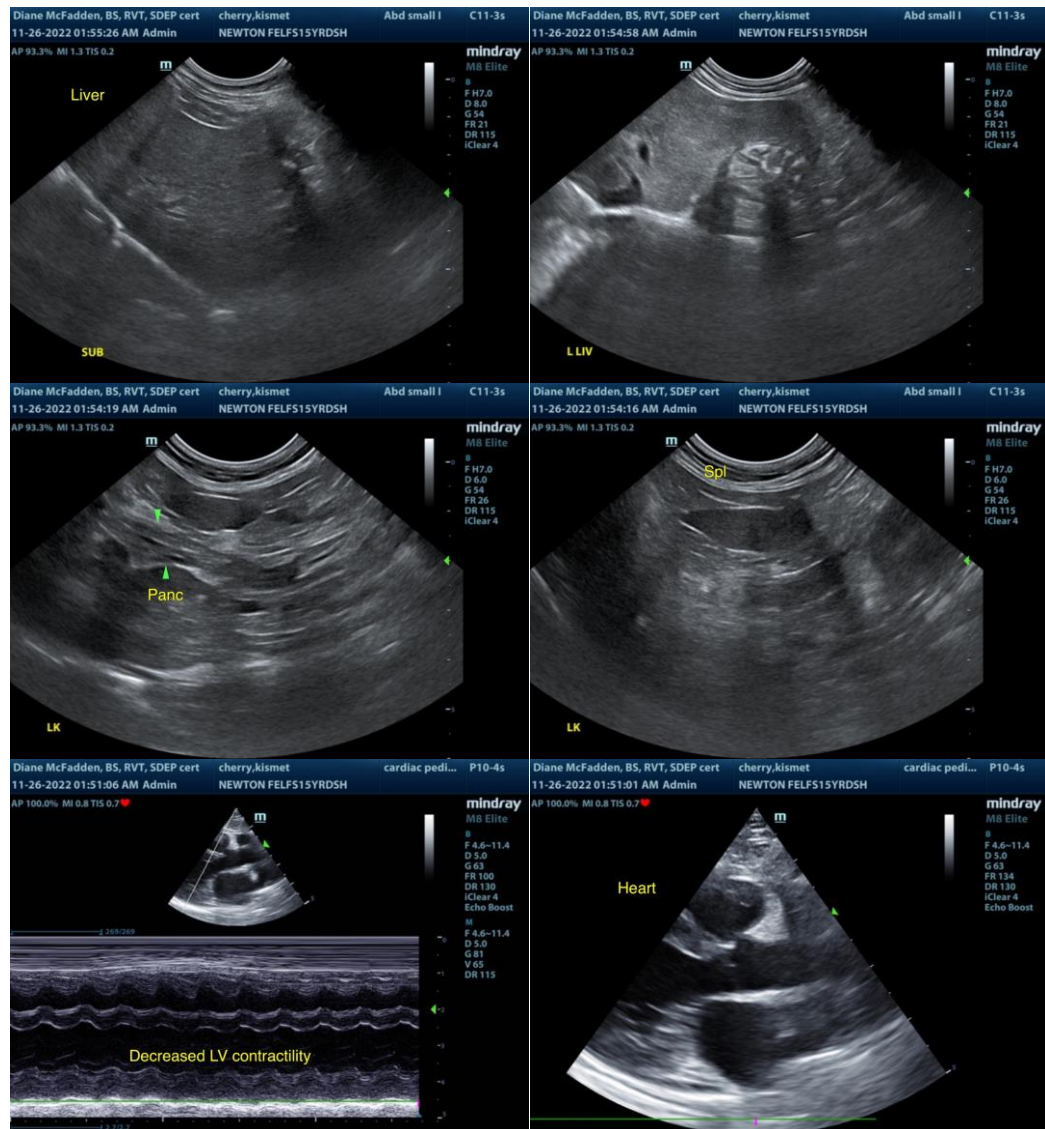
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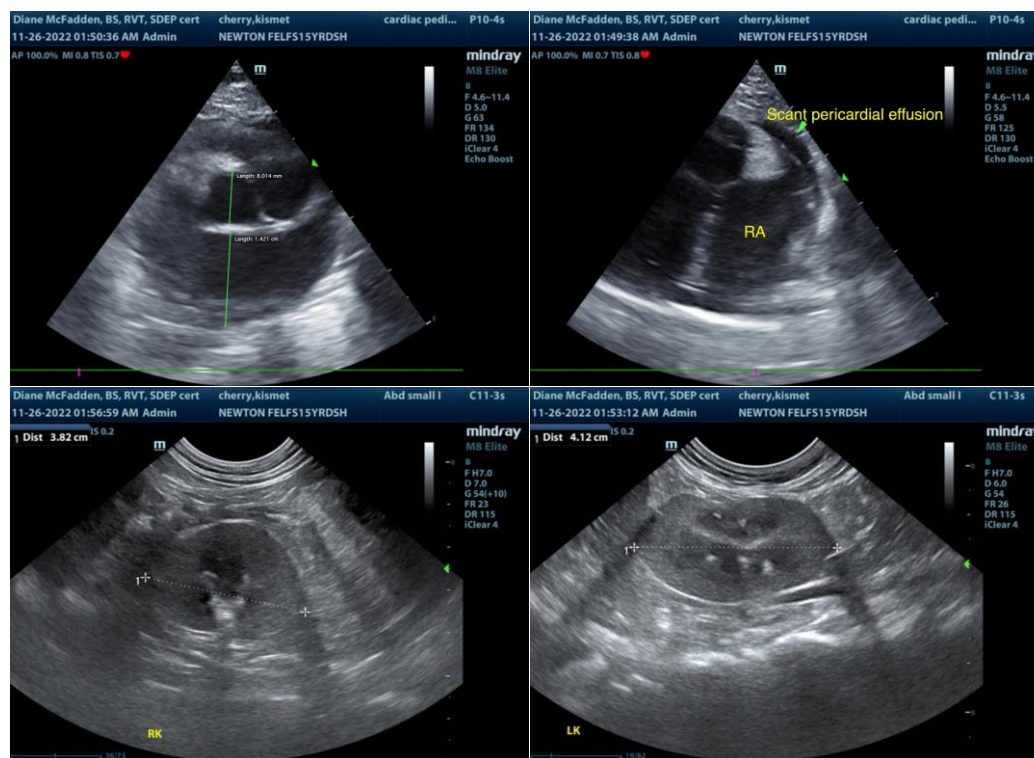
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
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