



**PATIENT**

Trouble Maceda

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

13 Years

**WEIGHT**

6.3 pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Rebecca Hamilton

**HOSPITAL NAME**

Newton Veterinary  
Hospital

**REFERRING VET**

Dr. Chan

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15273

**DATE**

04/21/26

**PRESENTING CLINICAL SIGNS**

Dull, anorexia, weight loss, bradycardia, Azotemia, lyte imbalance, weak  
Meds: Cerenia, Unasyn, Elura, Fluid

Abnormal PE/Chem/CBC/UA Results: CR 3.87, BUN >120, K 2.5, Na 137, GLU 139

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (lbs)	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	6.3	123	0.42	1.35	0.38	55	86
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber		LVOT VEL (m/s)	RVOT VEL (m/s)	IVRT (m/)
NORMAL PARAMETER	<1.5	1.6	0.7-1.7		<1.6	<1.3	40-60
PATIENT	--	1.3	1.3		1.0	0.75	NM
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							

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum** and **pericardial regions** were free of masses in the visible window.

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 change were noted.



**PATIENT**

The area of the aortic trifurcation was free of pathology.

Trouble Maceda

Adequate size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was mildly hyperechoic to the cortex with moderate indistinct corticomedullary border demarcation and adequate medullary volume. The left kidney measured 4.0 cm in length. The right kidney measured 4.1 cm in length.

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***Adrenal Glands***

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The adrenal glands were overtly normal in size, position and shape. The left adrenal gland measured 0.39 cm width. The right adrenal gland measured 0.42 cm width.

**SEX**

***Spleen***

Spayed Female

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.

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***Liver & Gallbladder***

6.3 pounds

The liver was subjectively normal 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. A discrete hyperechoic left caudal intraparenchymal nodule was present measuring 0.56 cm in diameter.

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The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The proximal to mid common bile duct was dilated and mild tortuous without overt post hepatic obstruction.

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***Gastrointestinal***

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The stomach presented mild prominent wall. Intact wall layering was maintained and distinct. The stomach contained a moderate amount of retained anechoic fluid. No evidence of obstruction to the pyloric outflow.

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The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A mild to variable segmental ileus pattern is present without obstruction or foreign material to the level of the colon. Segmental indistinct to loss of jejunal wall layering.

Normal visible colon wall layers were present with semi formed fecal matter.

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***Pancreas***

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The left pancreas presented mildly prominent in size with nonhomogenous hypoechoic parenchyma and capsule asymmetry.

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***Free Abdomen***



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Variably enlarged to swollen nonhomogenous mesenteric lymph nodes were present with an example measuring 2.2 cm x 1.4 cm exhibiting width: length ratio (>0.5). NO obvious visualized significant peritoneal effusion with generalized mild omental hyperechogenicity.

**ULTRASONOGRAPHIC FINDINGS**

- Normal cardiac structure/function.
- Gastroenteropathy exhibiting gastric and segmental intestinal ileus and segmental indistinct/loss of jejunal wall layer detail.
- Variable nonhomogenous to swollen mesenteric lymphadenopathy.
- Discrete hyperechoic liver nodules.
- Nonobstructive common bile duct dilation.
- Suspect chronic/chronic active pancreatitis.
- Nonspecific nephropathy-subjective chronic or acute on chronic.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Subjective multiple abdominal comorbidities are present including acute versus acute on chronic nephropathy, potential acute or acute on chronic non-specific gastroenteropathy which may include IBD or other inflammatory disease, triaditis given potential for cholangiohepatitis, mesenteric lymphadenitis or reactive hyperplasia or occult intestinal neoplasia and metastatic lymphadenopathy given loss of segmental jejunal wall layer detail. No overt mechanical gastrointestinal obstruction.

Correlation with urinalysis is recommended if not done. No cardiac contraindications to anesthesia or sedation. Assuming normal clotting status and using a 25-gauge needle, FNA cytology of accessible mesenteric lymph node +/- screening hepatic FNA cytology to assess for occult disease is recommended. Hospitalization with 24 to 48-hour gastrointestinal/renal support with monitoring of renal parameters and gastrointestinal signs with sonographic reassessment is recommended. An extremely guarded prognosis is indicated.



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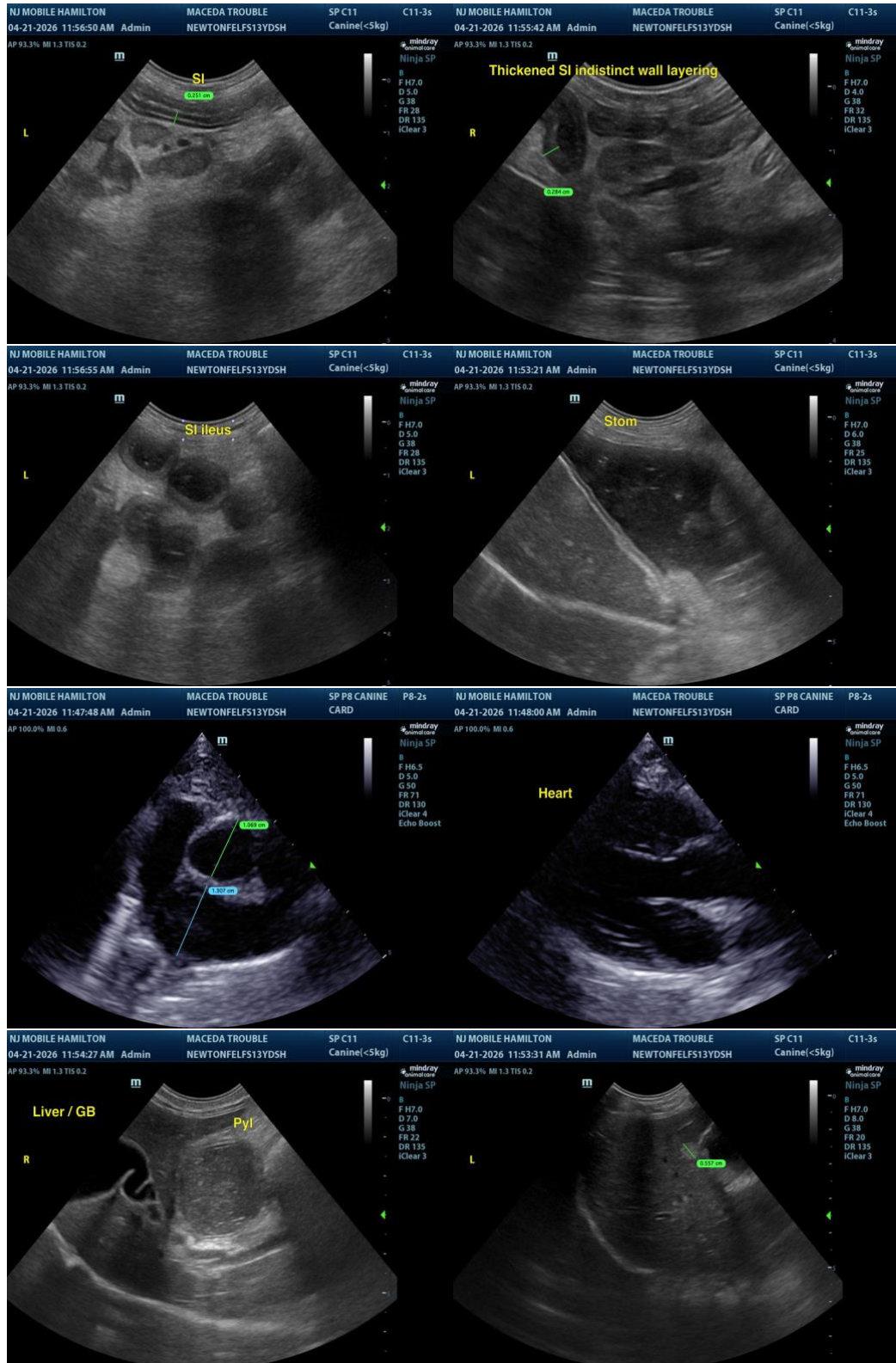
Dr. Chan

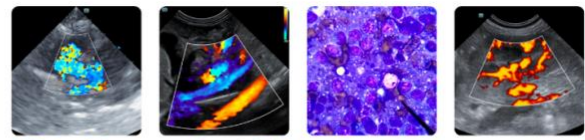
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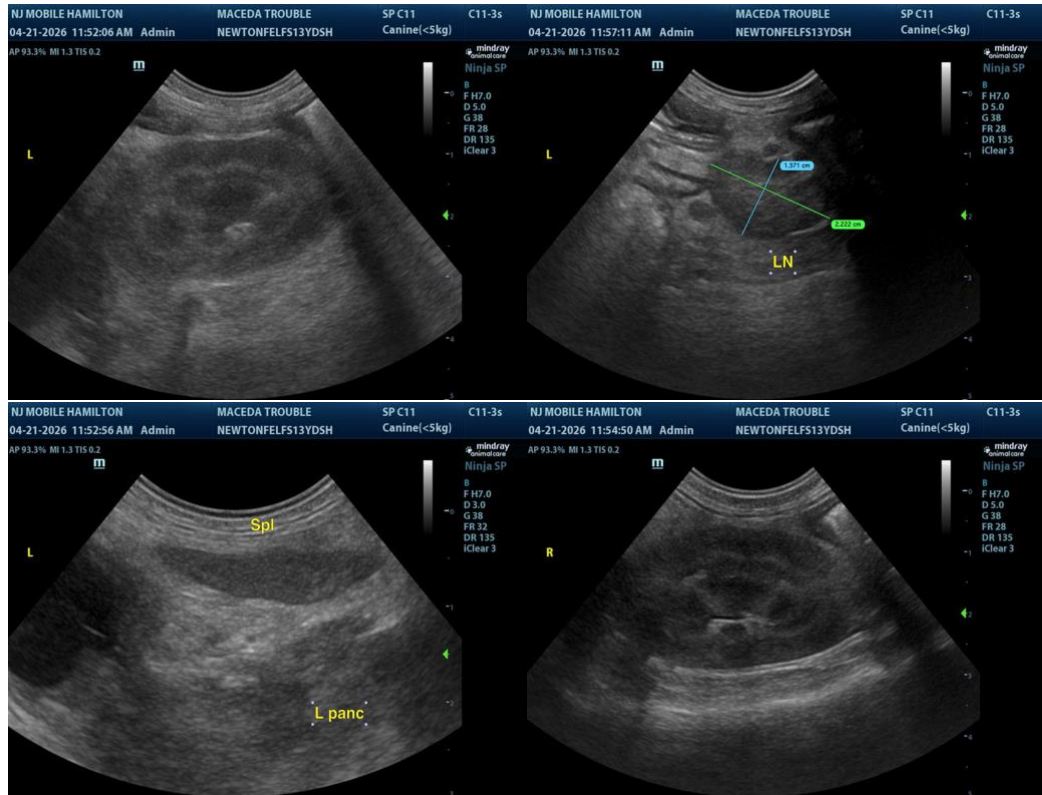
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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