



**PATIENT PRESENTING CLINICAL SIGNS**

Libby Marshall History: Presented for vomiting. History of vomiting 1 x weekly and now every other day. CBC/Chem unremarkable. R/O IBD, lymphoma, pancreatitis

**SPECIES** Abnormal PE/Chem/CBC/UA Results:

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

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.

DSH

**SEX**

Spayed female

Normal size and margination was 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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.6 cm in length. The right kidney measured 4.0 cm in length.

**AGE**

14 years

**Adrenal Glands**

**WEIGHT**

11 pounds

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm. No overt pathology was visualized in the area of the right adrenal gland.

**Spleen**

**INTERPRETED BY**

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

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.

**IMAGING PERFORMED BY**

Pamela Harrigan, RDCS

**Liver**

**HOSPITAL NAME**

Norfolk County Veterinary Service

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. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with mild luminal debris. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Leoni

**Gastrointestinal**

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The stomach presented intact yet mildly prominent wall layering with a normal wall layer ratio. The lumen of the stomach contained minor retained anechoic fluid with no signs of ileus, obstruction or foreign material. The gastric body wall measured 0.33 cm in width.

**DATE**

The intestinal walls demonstrated intact wall layers with diffusely thickened walls and altered to inverted 1:3 muscularis / mucosa ratio owing to generalized thickened muscularis layer. The duodenum wall measured 0.41 cm in width. The jejunum wall measured 0.4d cm in width. The ileocolic wall measured 0.53 cm in width.

Normal visible colon wall layers were present with apparent formed feces in lumen.



**PATIENT** *Pancreas*

Libby Marshall

The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. Mild pancreatic duct dilation was observed. No overt evidence of neoplasia.

**SPECIES**

Feline

*Free Abdomen*

**BREED**

DSH

Focally enlarged multiple to diffuse mesenteric lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation and generalized reactive mesentery was evident. An example of lymph node size was 2.9 cm x 1.2 cm.

**SEX**

Spayed female

**ULTRASONOGRAPHIC FINDINGS**

- Diffuse infiltrative enteropathy pattern.
- Mildly thickened stomach with possible mild gastric hypomotility.
- Associated multifocal hypoechoic to swollen mesenteric lymphadenopathy.
- Concurrent pancreatitis.
- Generalized peri intestinal to perilymphatic reactive mesentery.
- Mild chronic renal changes.
- Mild incidental gallbladder debris.

**AGE**

14 years

**WEIGHT**

11 pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

General considerations for the GI tract include infiltrative enteropathy (IBD/eosinophilic enteritis) or neoplastic infiltrative enteropathy with round cells (lymphoma, mast cell or other) with associated mesenteric lymphatic hyperplasia, reactive lymphadenitis or neoplastic lymphadenopathy. Although sampling or biopsies are required for definitive diagnosis, subjective higher probability for neoplastic infiltrative enteropathy i.e. lymphoma may be present in this case given the SI presentation and concurrent lymphadenopathy. Lymphatic FNA could be considered for screening cytology. Full thickness intestinal biopsy is likely required for definitive diagnosis. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

**INTERPRETED BY**

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

Empirical IBD protocol with assessment of clinical response would be reasonable if additional diagnostics are not elected.

**IMAGING PERFORMED BY**

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 Veterinary Service

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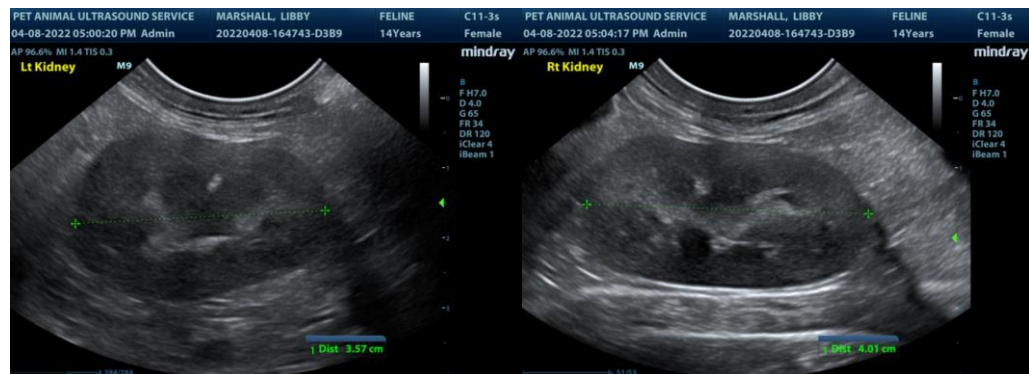
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**DATE**

04/08/2022





**PATIENT**

Libby Marshall

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed female

**AGE**

14 years

**WEIGHT**

11 pounds

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 DABVP (Canine and Feline)

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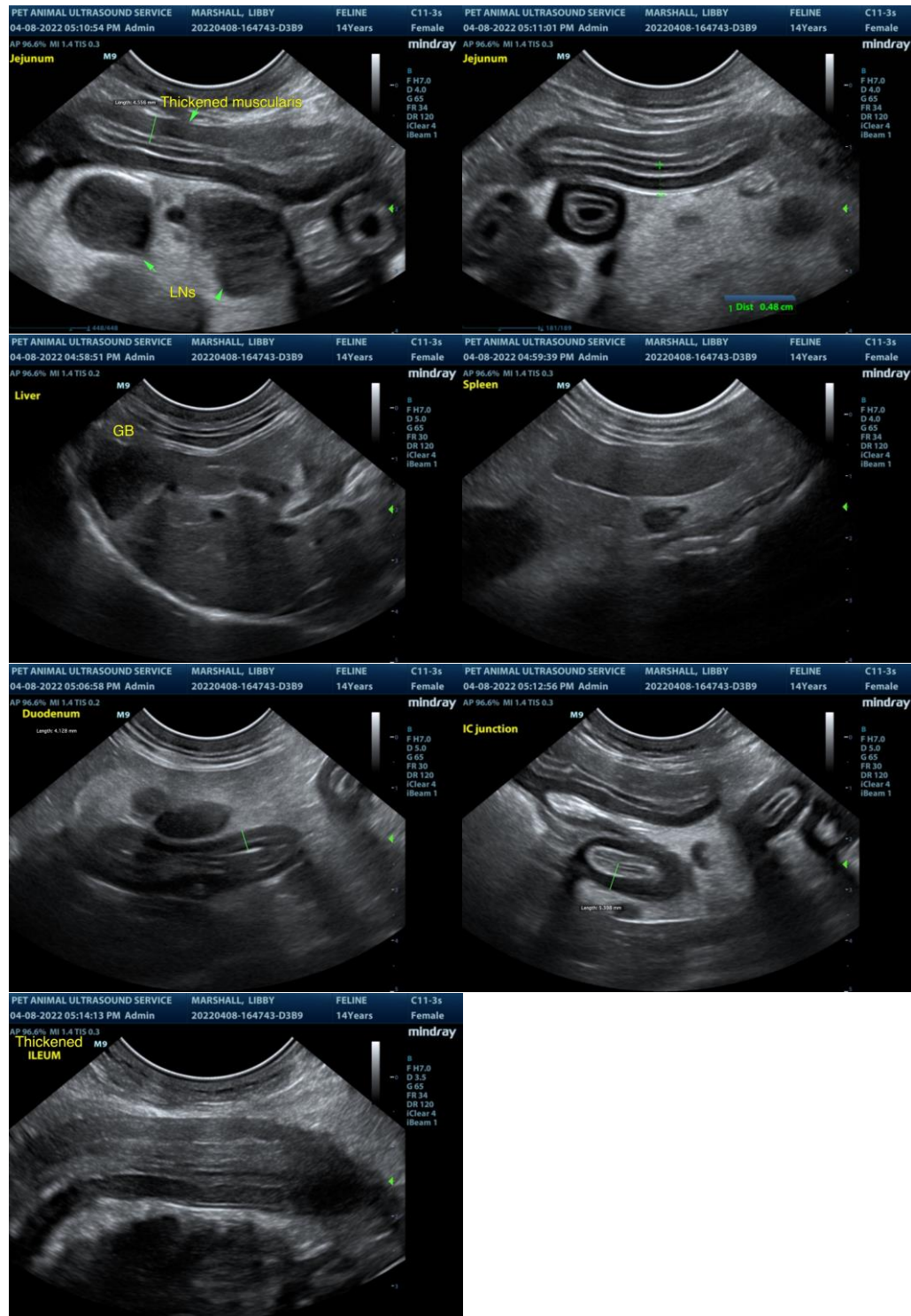
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



**PATIENT**

Libby Marshall

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

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)  
info@SonoPath.com

**BREED**

DSH

**SEX**

Spayed female

**AGE**

14 years

**WEIGHT**

11 pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Norfolk County  
Veterinary Service

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