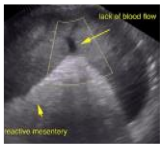
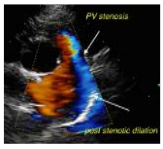
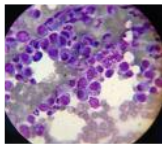
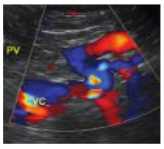
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Lenny Mackenzie

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

11 years

WEIGHT

2.4 kg.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Guenther

HOSPITAL NAME

Central Island Veterinary Emergency Hospital

REFERRING VET

Dr. Lou

INVOICE

16623

DATE

4/19/23

PRESENTING CLINICAL SIGNS

anorexia and weight loss for past month, elevated liver values in march. Ultrasound 3 weeks ago diagnosed cholangiohepatitis. Improved with supportive care in hospital but declining again in past few days - reduced appetite, lethargy, V+ and D+

Abnormal PE/Chem/CBC/UA Results: poor BCS 3/9 markedly icteric moderate leukocytosis with left shift, monocytosis elevated SDMA (24) and BUN (16)- unsure if renal or pre-renal, no UA yet mild hypocalcemia, hyponatermia, hypokaelmia, hypochloremia mild hypoproteinemia with modreate hypoalbuminemia, A:G 0.4 mildly elevateed ALT, ALP, GGT and moderately elevated bilirubin

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 changes was noted.

No evidence of medial Iliac or sublumbar lymphadenopathy.

Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Minor medullary mineral was noted in both kidneys. No pyelectasia was visualized. The left kidney measured 4.4 cm in length. The right kidney measured 4.2 cm in length.

Adrenal Glands

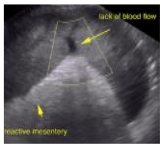
The left or right adrenal glands were not definitively visualized.

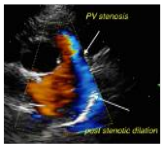
Spleen

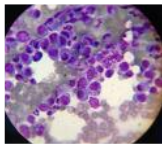
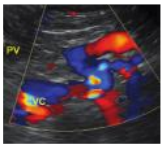
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted. The spleen measured 0.73 cm width at the level of the hilus.

Liver/ Gallbladder

The liver was subjectively mildly enlarged yet maintained symmetrical capsule contour. Mild hypoechoic parenchyma compared to adjacent falciform fat was noted exhibiting moderate coarse echotexture. Mild increased yet indistinct prominence of the portal vascular borders was noted. Normal hepatic vascular volume was present without evidence of congestive criteria. No hepatic masses or nodules were visualized. The gallbladder was non-distended with mildly prominent to hyperechoic gallbladder walls containing anechoic content with non-organized echogenic gallbladder debris. Mild proximal to mid-common bile duct dilation was present. The common bile duct measured





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0.17 cm in diameter. Visualization of the dilated common bile duct to the level of the duodenal papilla was not evident.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained anechoic gastric fluid was noted. No overt evidence of mechanical pyloric outflow obstruction was noted.

The small intestine presented intact to mildly indistinct wall layering and subjective maintained 1:3 muscularis/mucosa ratio with no overt visualized loss of intestinal wall layering. There was no evidence of intestinal mechanical obstructive pattern.

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

Pancreas

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. No overt evidence of neoplasia.

Free Abdomen

Moderate volume, primarily anechoic, peritoneal free fluid was present. Generalized mild uniform hyperechoic omentum was noted. Intermittent minor subjective benign / reactive mesenteric lymph nodes were noted. An example of a mesenteric lymph node measured 1.0 cm length x 0.24 cm width at the caudal pole. No evidence of significant omental lymphadenopathy was noted. No omental masses were present.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

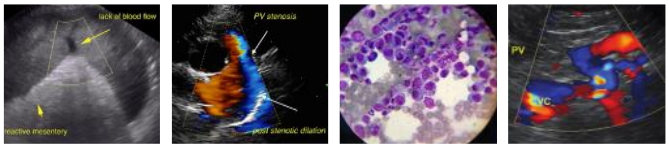
- Hepatopathy
- Nondistended gallbladder with nonorganized luminal debris, mild nonobstructive common bile duct dilation
- Mild pancreatitis pattern
- Moderate volume peritoneal effusion
- Gastroenteritis pattern with mild gastric stasis

Secondary Findings

- Chronic renal changes with mild medullary mineral

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hepatobiliary presentation may correlate with previous diagnosis of cholangiohepatitis with potential for progressive Triad Disease, given suspected mild pancreatitis and nonspecific gastroenteritis pattern. Sonographically, the degree of pancreatitis did not overtly appear to be severe, which would result in secondary peritoneal effusion. No overt evidence of post hepatic



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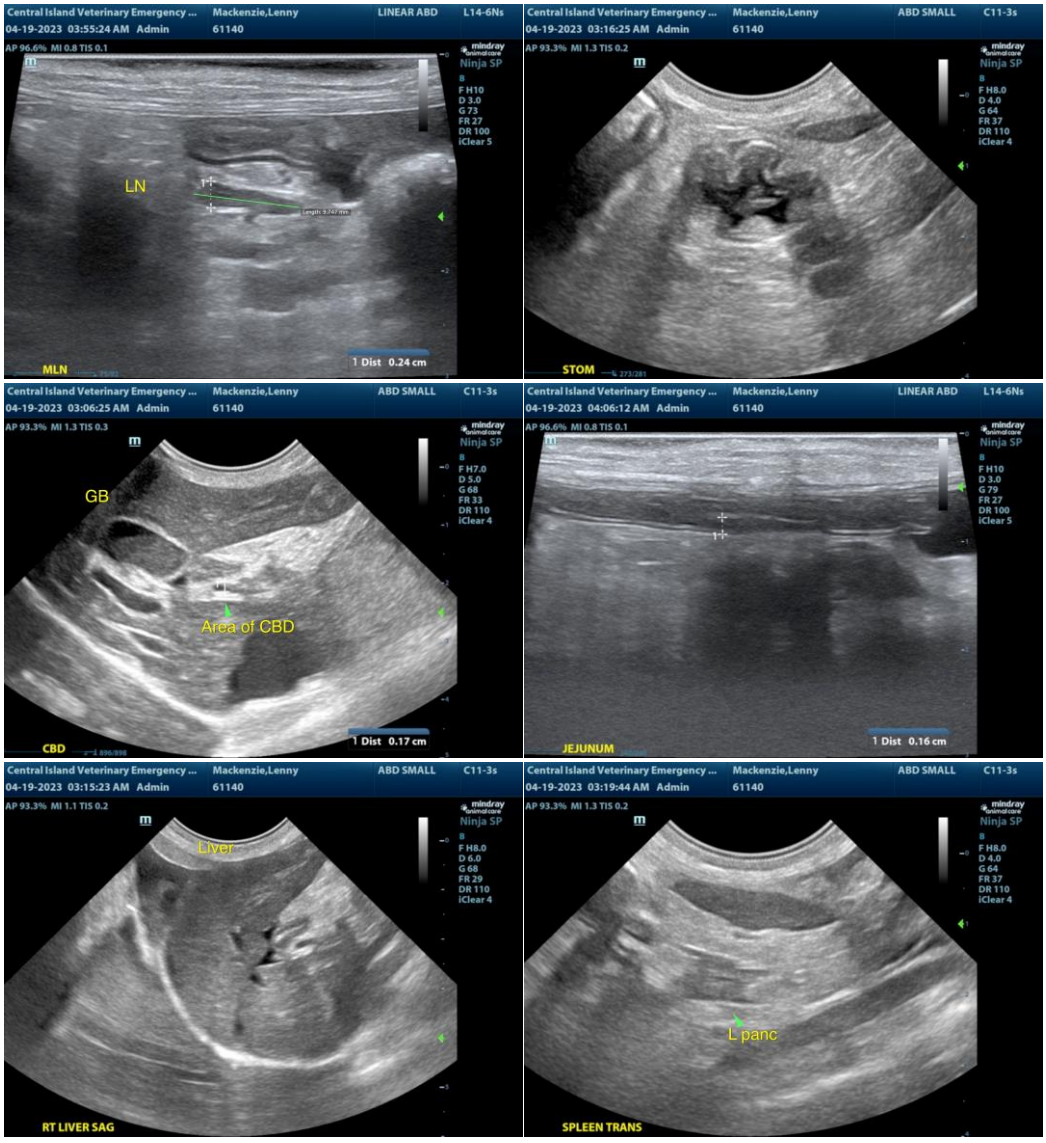
obstruction was noted. Potential for occult hepato-gastrointestinal neoplasia cannot be definitively excluded.

Further assessment may include effusion analysis, cytology, +/- C/S if evidence of inflammatory cells, as well as, assuming normal clotting status, hepatic parenchyma FNA using a 25-gauge needle for cytology. Three-view chest radiographs are suggested to rule out occult thoracic pathology as a contributing factor. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Continued aggressive empirical therapy for cholangiohepatitis / Triad Disease with close monitoring would be reasonable. A guarded to extremely guarded prognosis is indicated.



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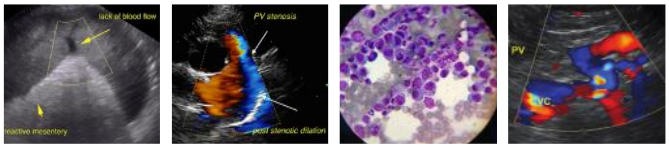

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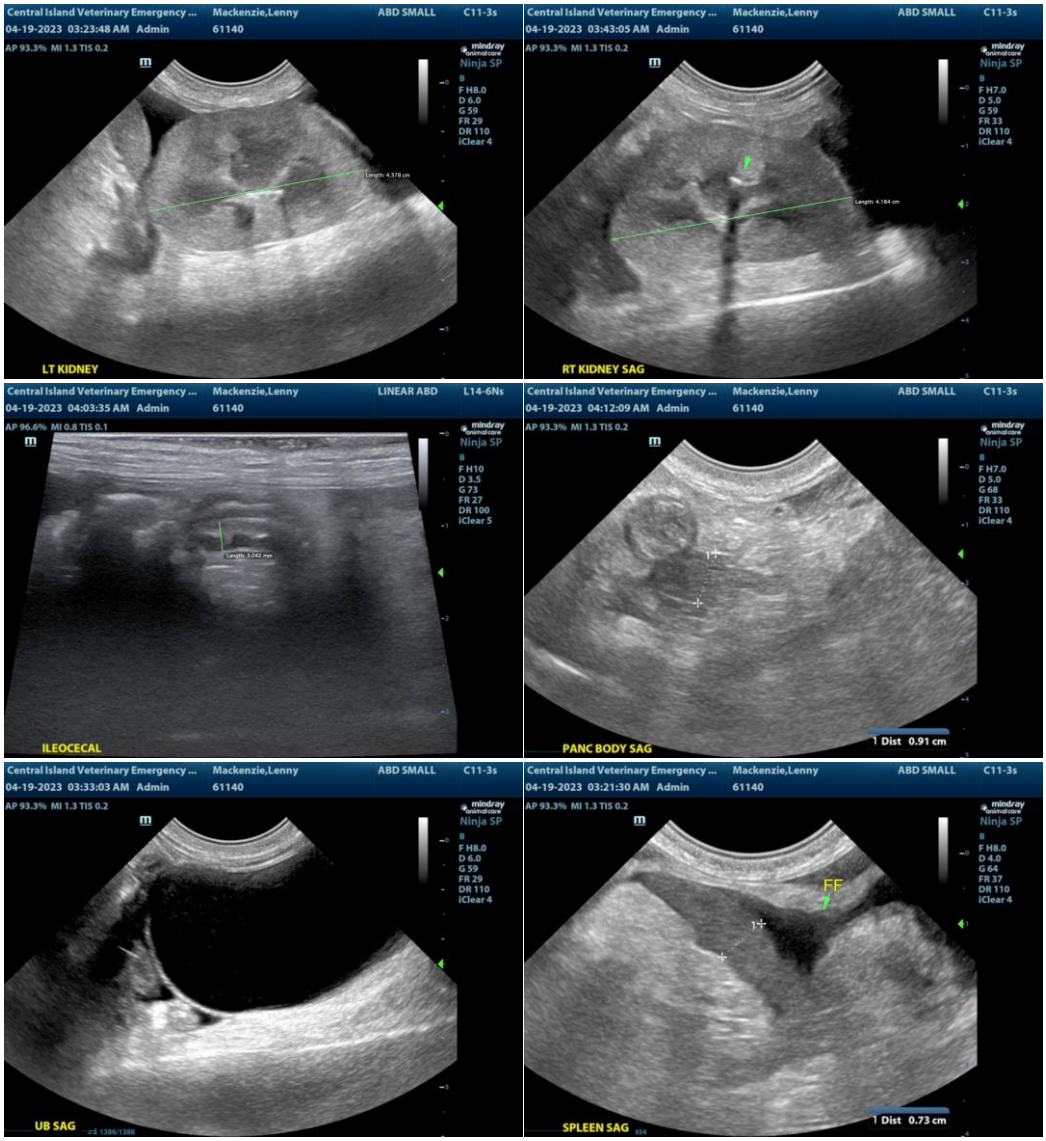

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
info@SonoPath.com