



PATIENT PRESENTING CLINICAL SIGNS

Cleopatra Li History: Severe dental disease, sneezing and 2 episodes of distress (resolved, has not happened again), elevated liver values, chronic intermittent vomiting. Current med: Gabapentin 100mgs for visits.

SPECIES Abnormal PE/Chem/CBC/UA Results: Neut. 9760, eosino 1120, ALT 200, Alk. Phos. 113, chol. 289, T. bili. 1.2, CPK 45, 1+ icterus. U/A: Ph 6.5, bili +1, USG 1.056.

Feline

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

DSH

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A small amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

SEX

Spayed Female

The **left kidney** is normal size (3.30 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. The cortex is hyperechoic. A few nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

AGE

15 years

The **right kidney** is normal size (3.37 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal mild to moderate loss of distinction. The cortex is hyperechoic. Several nonobstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

7.5 lbs

Adrenal Glands

The region of the **left adrenal gland** is evaluated. No obvious pathology is observed.

The **right adrenal gland** is normal size (0.38 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The **spleen** is normal in size (0.72 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The **liver** is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogenous in appearance. A 1.49 x 1.11 cm hyperechoic nodule is observed on the right side, adjacent to the diaphragm. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

INTERPRETED BY

Andrea Nicastro,
DVM, Diplomate
ACVIM (*Small Animal
Internal Medicine*)

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

Whippany VH

REFERRING VET

Dr. Cordero

INVOICE

11575

DATE

9.1.22

muscularis: mucosal ratio in most segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

Pancreas

The **pancreas** is diffusely prominent in size with minimal deviation from the normal peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is visible but not overtly dilated. Surrounding mesentery is hyperechoic.

Free Abdomen

The **mesentery** in the cranial aspect is hyperechoic. There is no obvious evidence of free fluid. A 0.48 cm **gastric lymph node** is visualized. A few prominent lymph nodes are also observed in the right cranial quadrant, the largest measuring 0.73 cm in length. A few mesenteric lymph nodes are also observed, the largest measuring 1.32 cm in length.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hepatic changes are non-specific and could be consistent with emerging hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.
- The pancreatic changes are suggestive of chronic active pancreatitis.
- Bowel pattern consistent with inflammatory bowel disease with some potential for emerging lymphoma.

Secondary Findings

- Bilateral degenerative renal changes with nonobstructive nephrolithiasis.

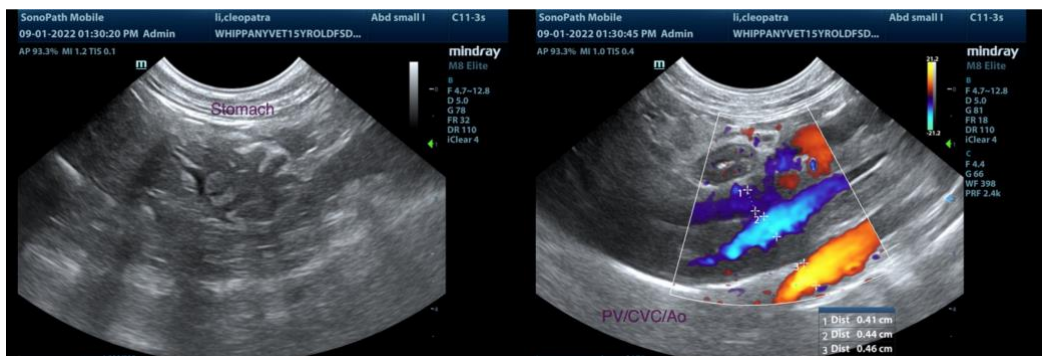
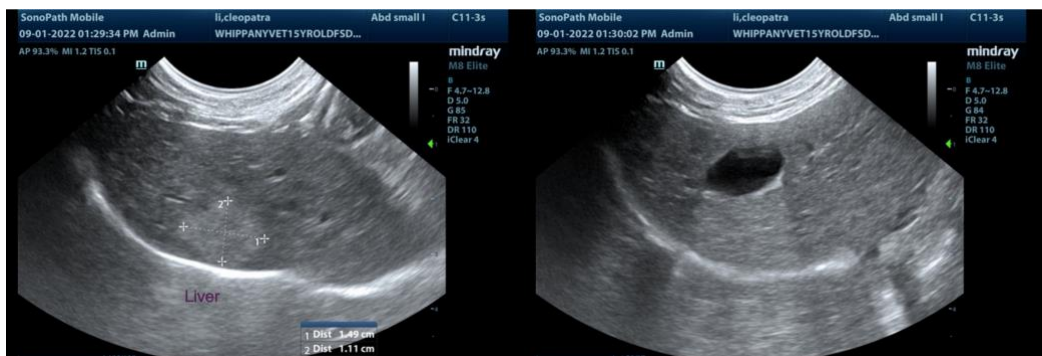
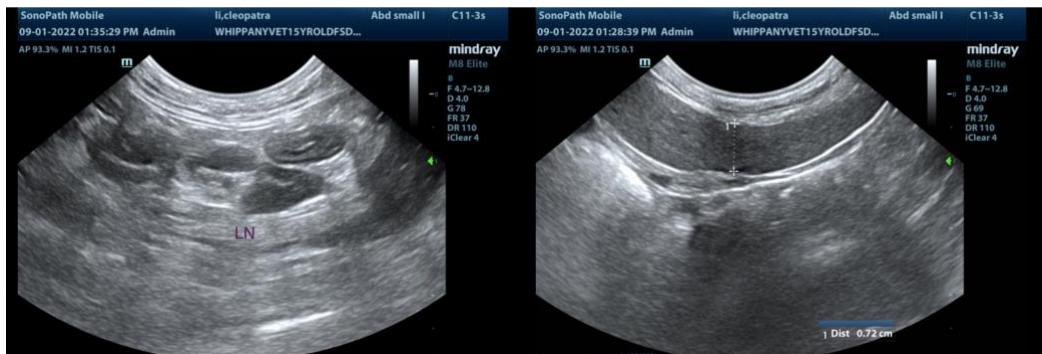
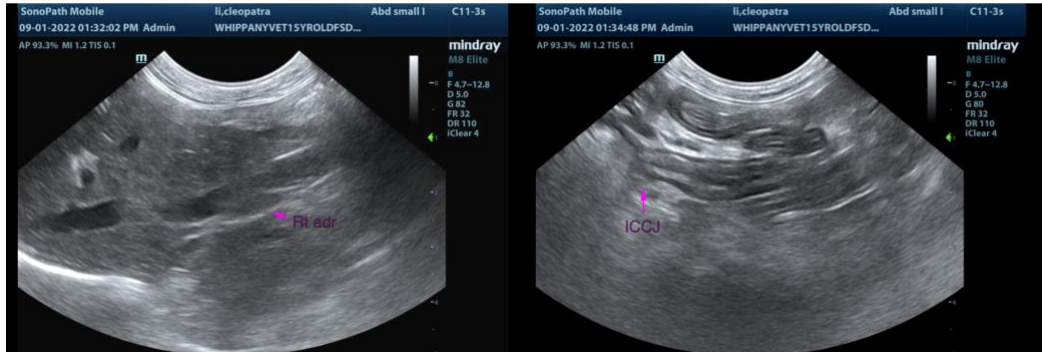
*Given the sonographic changes, “triaditis” is a consideration in the patient.

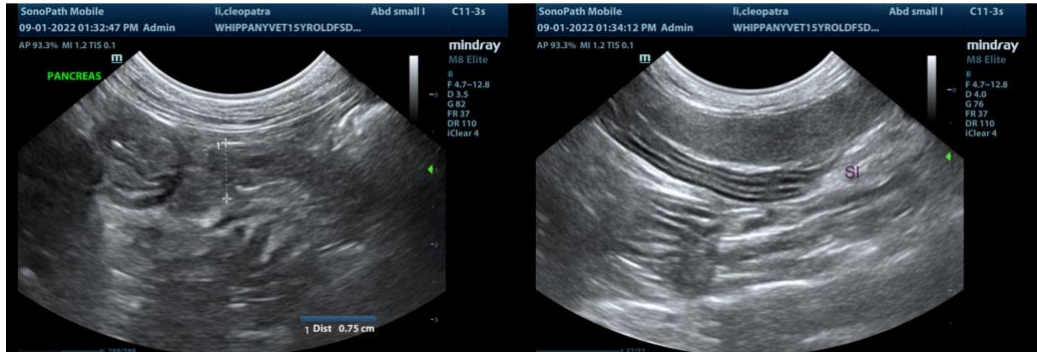
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Consider pre-and postprandial serum bile acids and hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy) if clotting status is appropriate. Hepatic cytology is useful in identifying hepatic lipidosis and round cell neoplasia but may be less beneficial in assessing for other hepatopathies. Surgical biopsies are more likely to yield a definitive diagnosis. If pursued, aerobic and anaerobic bile cultures are also recommended.

Other diagnostics considerations include the following:

1. GI panel (serum cobalamin and folate, TLI and PLI)
2. A fecal evaluation for ova and Giardia
3. Hydrolyzed or novel protein diet trial
4. Toxoplasmosis testing (IgM, IgG), given the pancreatic and hepatic pathology
5. +/- GI biopsy (i.e., endoscopic or surgical). Three-view thoracic radiographs are recommended prior to any anesthetic event.





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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com