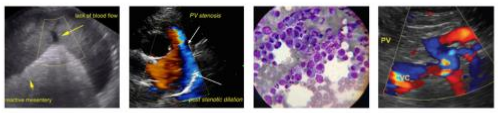


PATIENT

Sorellina Labenski

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed Female

AGE

14 Years

WEIGHT

8.8 Pounds

INTERPRETED BY

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Norfolk County VS

REFERRING VET

Dr. Aurora Richards, DVM

INVOICE

15805

DATE

5/27/22

PRESENTING CLINICAL SIGNS

History: Patient 2 years ago weight 14.9 lb now 8.8 lb. Vomiting bile for last 5 days. On PE: thickened intestines, bloated abdomen. IH CBC and full chemistry NSF. Elevated TP. Started Mirtazapine and Prednisolone 5 mg daily for possible growth or inflammation. Sedated with alfaxalone.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is well distended with anechoic contents. The wall is smooth and regular. A trivial amount of free floating sediment is present, however, there is no evidence of cystoliths, polyps or a mass.

Kidney

The **left** kidney measures 3.90 cm (3.80-4.40 cm). The kidney is mildly rounded. The capsule is smooth. Its overall architecture is well preserved with only a very mild loss of the normal definition of the cortico-medullary junction. Very mild mineralization is present, in addition to an accumulation of intrapelvic fat. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

The **right** kidney measures 3.67 cm (3.80-4.40 cm). The capsule is smooth. Its overall architecture is well preserved with a very mild loss of the normal definition of the cortico-medullary junction. Mild mineralization of the diverticulae and pelvis is present, in addition to an accumulation of intrapelvic fat. There are no signs of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.38 cm at the cranial pole, 0.32 cm at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The **right** adrenal gland measures 0.34 cm at the cranial pole, 0.36 cm at the caudal pole. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

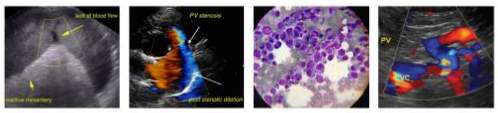
Spleen

Although the spleen is within normal limits in size 8.1 mm (normal = 10 mm), echotexture, and echogenicity, it is longer than normal. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

There are no obvious signs of hepatomegaly. The liver's borders are smooth, but mildly rounded. The liver's echotexture is homogeneous. It is mildly, but diffusely hyperechoic, i.e., it is isoechoic to the spleen.

Multiple hyperechoic nodules of variable size are scattered throughout the parenchyma (e.g., 2.2 mm in diameter x 2.8 mm in length). The hyperechoic nodules may be due to deposition of fat, mineralization and fibrosis. The walls of the portal veins are hyperechoic and prominent. Hyperechoic



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portal walls may occur secondary to inflammation, perivascular cuffing due to myelolipomas and mineralization and fibrosis.

The gall bladder (GB) is not distended. The intraluminal wall is mildly thicker than usual and is echogenic. It is surrounded circumferentially by an anechoic "halo" and a second hyperechoic wall, which is hyperechoic. The latter is suggestive of edema or inflammation. The cystic duct is not dilated, but is mildly tortuous as it extends toward the common bile duct (CBD). The CBD is within normal limits (2.5 mm).

Gastrointestinal

The lumen of the stomach is filled with a large amount of ingesta. Although the gastric wall is within normal limits in thickness and the wall layers are well defined, the submucosa is more prominent than usual. Peristalsis appears decreased (a "to and fro" motion is observed).

No abnormalities are observed with the duodenal papilla.

A large amount of ingesta and fluid are present within the duodenum.

The small intestinal wall thickness, including the duodenum, is within normal limits and the definition of the wall layers is preserved. The submucosa of a few loops of jejunum is prominent. No abnormalities are observed with the ileo-cecal-colic junction. Abnormally dilated loops of bowel are not observed.

The colonic wall is not thickened and mural detail is considered normal.

Pancreas

Right limb: A mineralization (it does not cast a shadow) is observed within the pancreatico-duodenal duct (PDD). The mineralization measures 2.21 mm in diameter x 2.86 mm in length. The diameter of the PDD is 2.80 mm in diameter. The pancreas has a very mildly coarse echotexture. It consists of subtle hypoechoic nodules of variable size and pinpoint hyperechoic foci scattered throughout the parenchyma. These changes are suggestive of nodular hyperplasia and fibrosis, respectively. Fibrosis may be an age-related change, secondary to previous episodes of pancreatitis, mineralization and amyloid deposition.

Further distally, i.e. ventral to duodenum, the right limb is severely hypoechoic and enlarged with irregular contours. The surrounding mesentery is hyperechoic suggestive of active pancreatitis. Signs of neoplasia are not appreciated.

Left limb: age-related changes.

Other

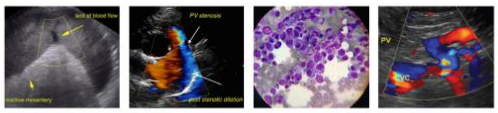
Lymph nodes

Lymph nodes in the area of the ileo-cecal-colic junction are mildly prominent, but remain within normal limits. The surrounding mesentery is hyperechoic.

Abdominal effusion is not visualized.

ULTRASONOGRAPHIC FINDINGS

- **Pancreas**: Active pancreatitis is suspected. However, the presence of a mineralization within the pancreatico-duodenal duct suggests possible intermittent passing of choleliths that are no longer present on today's ultrasound. Clinical signs of both disease processes include abdominal pain.



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- **Liver and gallbladder**: Suppurative cholangitis/cholangiohepatitis and cholestasis are suspected. The changes associated with the GB are suggestive of edema and/or inflammation, i.e. cholecystitis is also suspected. A secondary bacterial infection must be considered.

- **Gastrointestinal tract and lymph nodes**: Abnormalities are very subtle and may be attributed to inflammation secondary to the suspected suppurative cholangitis/cholangiohepatitis, cholecystitis, and pancreatitis. However, underlying inflammatory bowel disease cannot be excluded. Reactive lymphadenomegaly is the likely based on the appearance of the lymph nodes. However, lymphoma cannot be excluded.

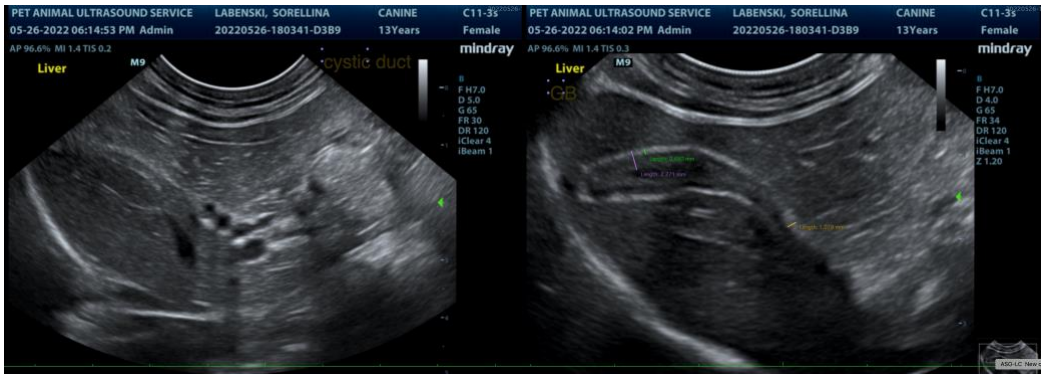
- **Spleen**: Splenomegaly may be due to the administration of alfaxalone, and/or splenitis. Infiltrative disease is unlikely, but cannot be excluded.

- **Kidneys**: Age-related degeneration is observed. However, pyelonephritis cannot be excluded in older cats, despite absence of classical sonographic signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The following are recommended

- A CBC, serum biochemical profile, urinalysis, and T4, if not already performed.
- A urine culture, as pyelonephritis cannot be excluded in older cats, despite absence of classical sonographic signs.
- A spec fPL, TLI, serum cobalamin, and folate to assess for maldigestion/malabsorption
- If signs of GERD, 10-14 day trial with famotidine or omeprazole (0.7-1 mg/kg PO q12h)
- Differential diagnoses include cholecystitis, cholangitis/cholangiohepatitis, and secondary ascending bacterial infections. Although indiscriminate use of antibiotics is not recommended, consider broad-spectrum antibiotics with reassessment of liver enzymes, including GGT, in a few weeks. Treatment for 4-6 weeks or more may be required.



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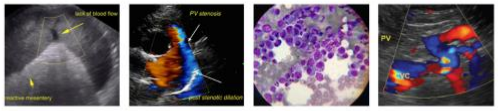

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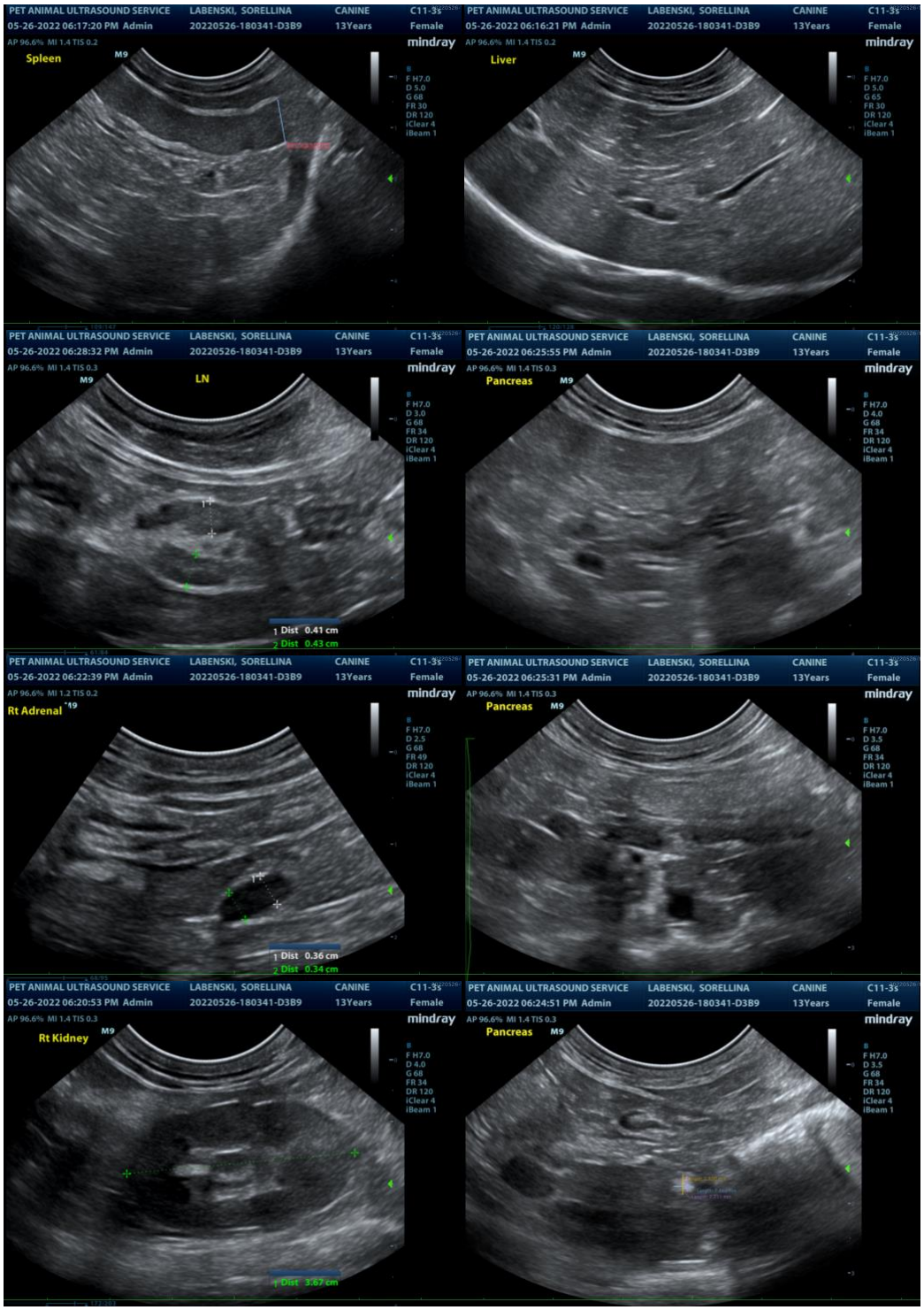

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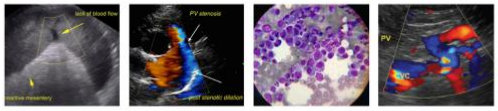

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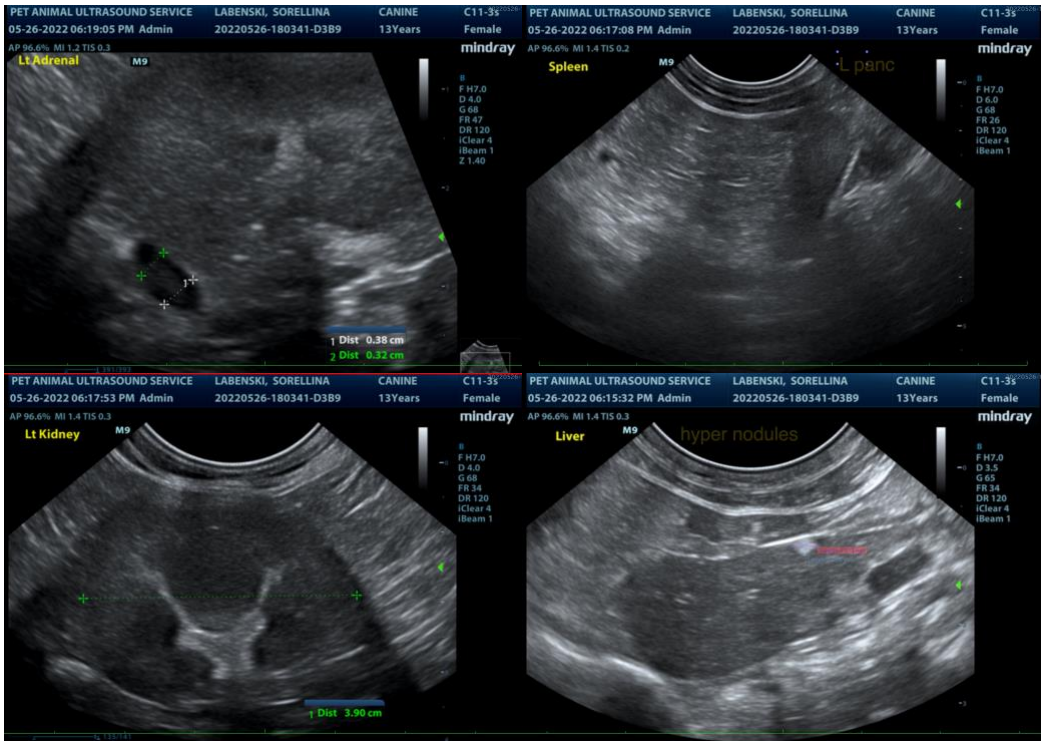

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

Lisa.Carioto@sonopath.com