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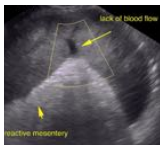
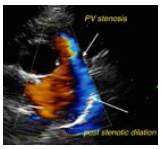
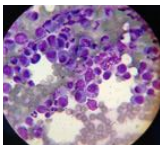
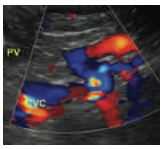

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PATIENT
Buddha Li

SPECIES
Feline

BREED
British Shorthair

SEX
Neutered male

AGE
13 years

WEIGHT
10 lbs

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY
Shari Reffi, CVT

HOSPITAL NAME
Newton VH

REFERRING VET
Dr. Kim

INVOICE
30790

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5/31/22

PRESENTING CLINICAL SIGNS

History: Vomiting, lethargy, azotemia, elevated LE. Current meds: Denamarin, Ursodiol, Mirtazapine, Cerenia, Unasyn, Buprenex
Abnormal PE/Chem/CBC/UA Results: Neut 13.11 (12.58 H); Lymph 0.29 (0.73 L); Bun 99.3 (32 H); Crt 10.2 (1.8 H); Phos 10.2 (6.0 H); ALY 1375 (diluted); GGT 20 (10 H); T.Bili 5.4 (0.5 H)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is well distended with anechoic contents. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra. A small amount of free floating and gravity dependent sediment is present, some of which has formed aggregates. There is no evidence of cystoliths, polyps or a mass.

Kidneys

Bilateral renomegaly.

The **left** kidney measures 4.83 cm (3.80-4.40 cm). The cortex is mildly hyperechoic. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Very mild mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. An accumulation of intrapelvic fat is noted. Blood flow is within normal limits. The surrounding mesentery is mildly hyperechoic.

The **right** kidney measures 4.70 cm (3.80-4.40 cm). The capsule is smooth. The capsule is smooth. Its overall architecture, including the definition of the cortico-medullary junction, is preserved. Very mild mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. An accumulation of intrapelvic fat is noted. Blood flow is adequate, but decreased compared to the left. The surrounding mesentery is moderately to markedly hyperechoic.

Aortic bifurcation/trifurcation

No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.41 cm in (central) diameter. Cranial pole 0.36 cm; caudal pole 0.42 cm. A small, pinpoint, hyperechoic region is present at the cranial pole, which is suggestive of mineralization, fat and/or ischemia. 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 0.40 cm in diameter. No abnormalities are noted with the gland's overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

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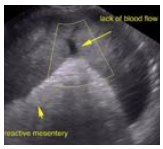
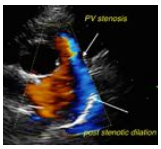
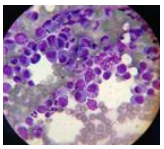
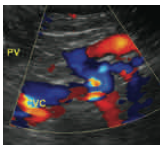

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Spleen

The spleen is within normal limits in size 8.2 mm (normal = 10 mm), echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified. The mesentery surrounding the liver is hyperechoic.

Liver

There are no obvious signs of hepatomegaly. The liver's borders are smooth, but mildly rounded. A diffuse, mildly coarse or granular echotexture is observed, which may be due to a reactive hepatopathy. No obvious abnormalities are noted with the hepatic vessels.

The gallbladder (GB) is moderately distended with a moderate amount of free floating, gravity dependent and inspissated echogenic material. The GB wall is thicker (2.5 mm) than normal, irregular and hyperechoic. Inspissated sludge in the form of nodules is adhered to the intraluminal wall. The cystic duct is dilated (4.5 mm) and severely tortuous. The common bile duct is also dilated. A partially obstructive pattern is suspected. The parenchyma surrounding the GB and cystic duct is hyperechoic.

Gastrointestinal

The gastric wall is within normal limits in thickness and the wall layers are well defined. An ileus of the stomach is present. The lumen of the stomach is dilated and filled with a large amount of fluid and gas. An abnormal gas pattern is suspected. A possible foreign body cannot be excluded. The mesentery surrounding the stomach is markedly hyperechoic.

The duodenal papilla is enlarged and "swollen" in appearance (6.62 mm in diameter x 8.72 mm in length). The lumen of the duodenum is dilated with fluid and gas. The surrounding mesentery is severely hyperechoic. Duodenum WNL (0.21 cm).

The small intestinal wall thickness is within normal limits and the definition of the wall layers is preserved. Multiple loops of small intestines are dilated (viewed subcostally) and a diffuse ileus of the small intestines is present throughout the abdomen with a diffusely hyperechoic mesentery surrounding the bowel.

A possible foreign body (trichobezoar) may be present at the ileo-cecal colic junction.

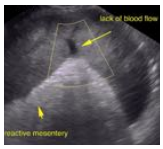
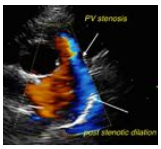
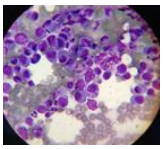
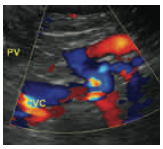
Gas is present within the transverse colon.

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

Pancreas

The **left limb** is moderately enlarged and diffusely hypoechoic, with irregular and scalloped contours. Some areas are more severely hypoechoic than others. Pinpoint hyperechoic foci are noted in the parenchyma. The hyperechoic foci may be due to fibrosis secondary to age-related changes, previous episodes of pancreatitis and deposition of amyloid. The surrounding mesenteric fat is mildly to moderately hyperechoic. These findings are suggestive of active pancreatitis.

The **right limb** is not well visualized, however, the surrounding mesentery is severely hyperechoic with a loss of contrast.

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Overt signs of neoplasia are not noted.

Other

Lymph nodes

A gastric lymph node, which is hypoechoic and enlarged is noted (0.53 cm in diameter x 0.66 cm in length) with a severely hyperechoic mesentery.

A couple of mesenteric LNs are mildly enlarged and elongated, with slightly irregular contours.

Abdominal effusion

Anechoic fluid is visualized surrounding the liver.

ULTRASONOGRAPHIC FINDINGS

- **Gastrointestinal**: A possible gastric foreign body that is extending into the duodenum cannot be excluded based on the gas pattern and the diffuse ileus of the GI tract. The mesentery surrounding the GI tract is markedly hyperechoic. Note, an obvious mass is not visualized, but one may be overlooked due to the large amount of gas and fluid.
- **Liver**: A vacuolar hepatopathy is suspected, in addition to a component of hepatic lipidosis. However, cholestasis, and cholangitis/cholangiohepatitis are suspected.
- **Gallbladder:** A partial extrahepatic bile duct obstruction is suspected, in addition to suppurative cholecystitis and secondary inflammation of the duodenal papilla. An obvious mass is not observed, but may be missed due to the large amount of gas and fluid within the GI tract.
- **Pancreas**: pancreatitis is suspected. This may be secondary to inflammation associated with the anatomy of the liver and gastrointestinal tract.
- **Lymphadenomegaly** is more suggestive of reactive hyperplasia, rather than infiltrative disease.
- **Kidneys**: Bilateral renomegaly. Very mild degeneration is observed, however, signs of pyelonephritis are suspected. Lymphoma cannot be excluded, despite the preservation of renal architecture.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The following are suggested/recommended

- Hospitalization with intravenous fluids
- Urine culture and sensitivity. Treatment with enrofloxacin IV slowly, pending results.
- Analgesia
- Other supportive care: Anti-emetics (maropitant), famotidine or pantoprazole IV
- Passage of a naso-gastric tube to remove excess fluid and gas

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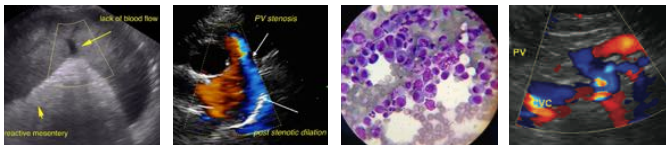

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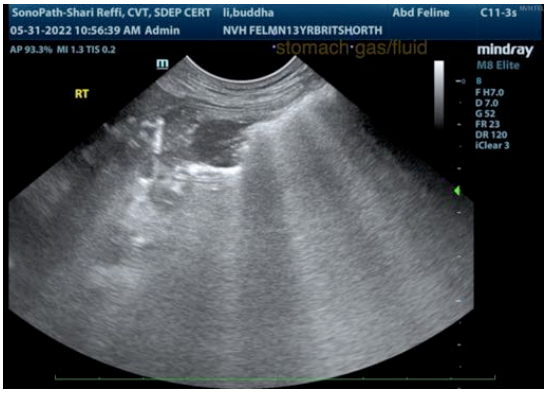
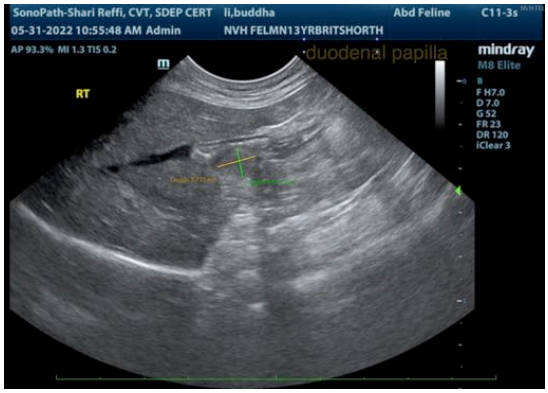
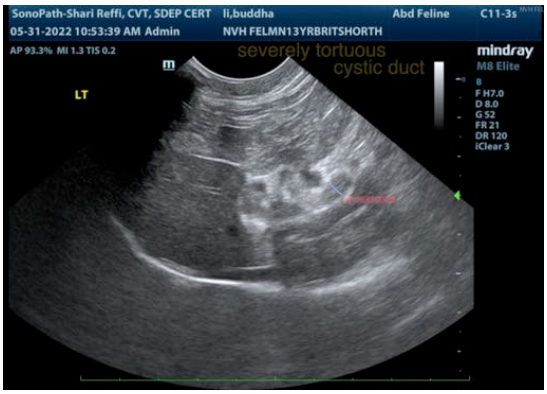
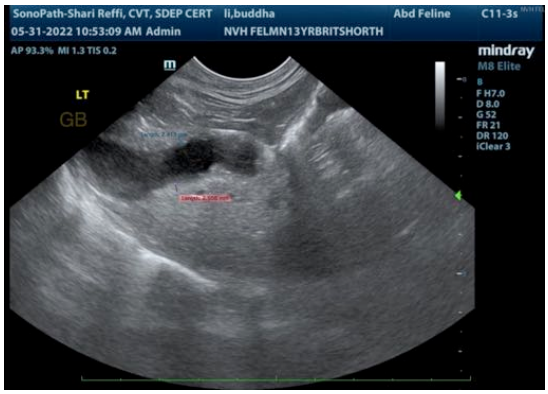
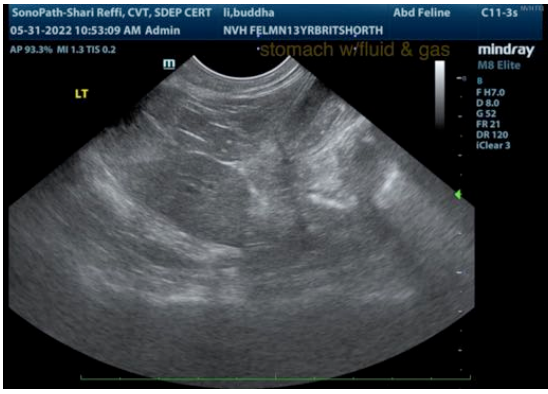
- Coagulation profile
- Vitamin K injection 0.5 mg/kg SQ every 8 hours for 2-3 doses (treatment of cholestasis).
- Blood pressure
- Exploratory laparotomy once stabilized
- A sonographic re-evaluation of Buddha's liver, GB and GI tract is recommended prior to performing surgery, or baseline radiographs may be performed and repeated in a few hours to monitor if the gas pattern has moved.

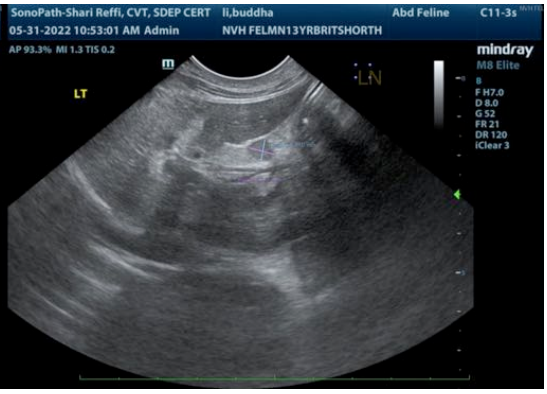












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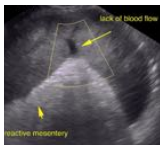
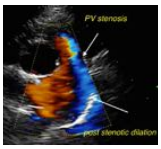
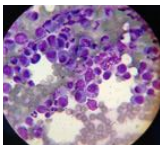
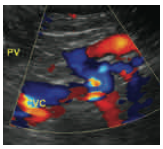

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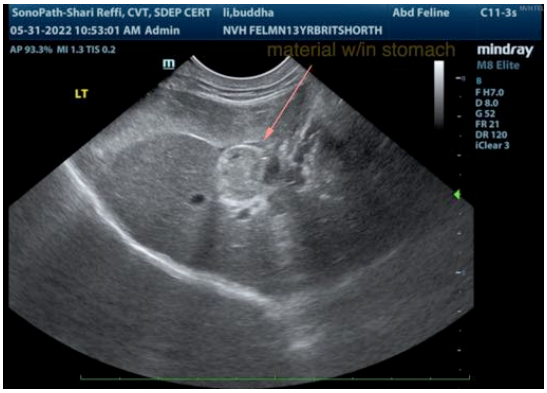

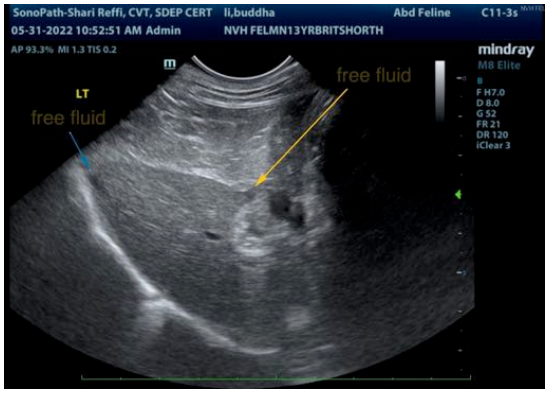

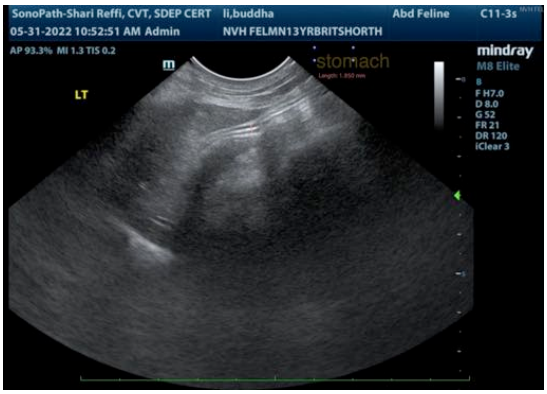

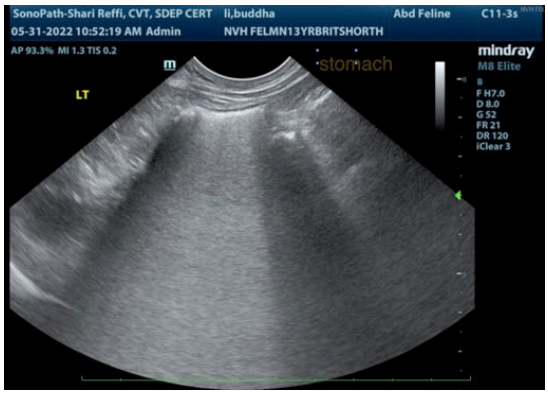

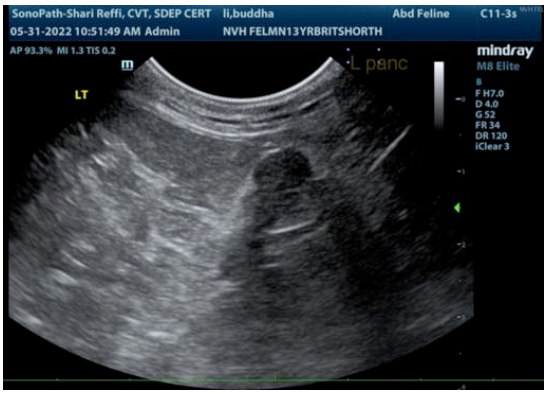

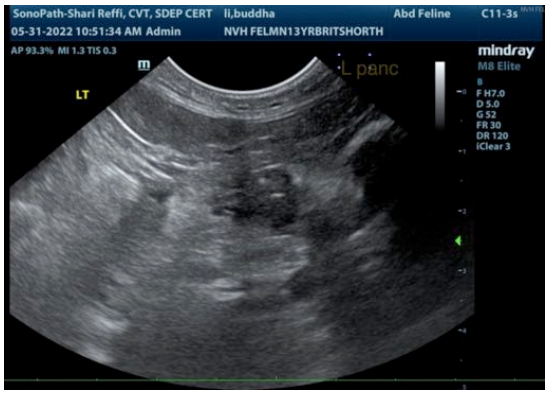

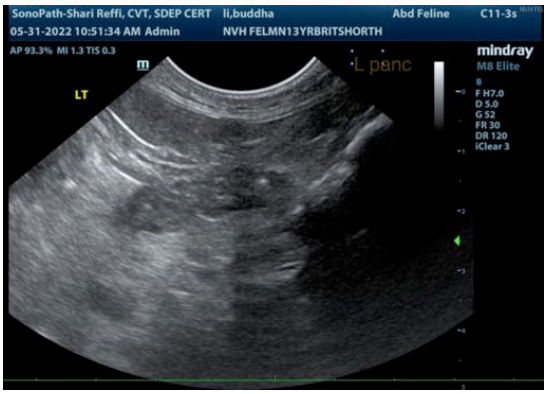

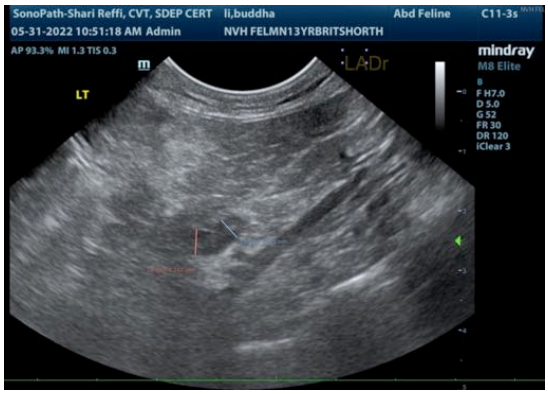

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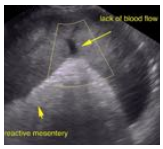
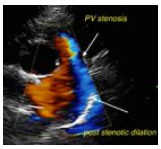
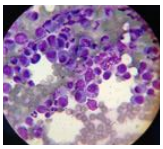
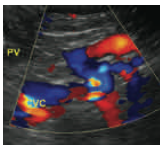

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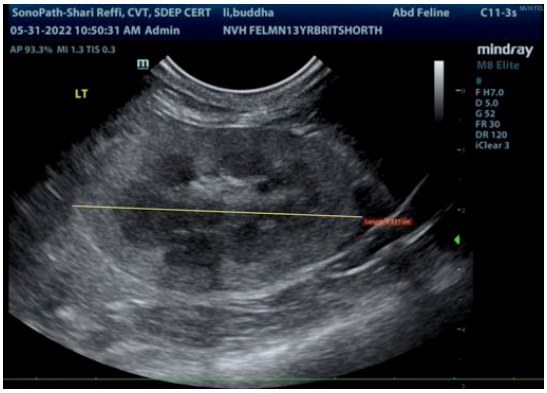

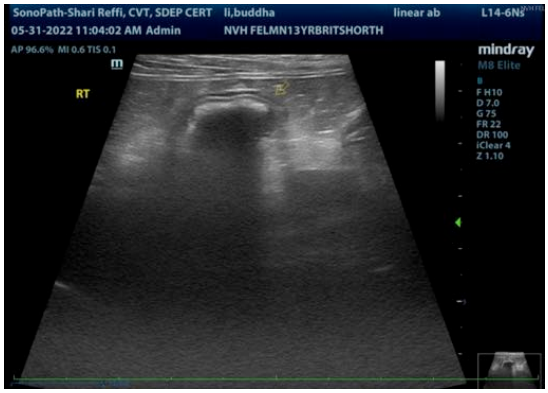

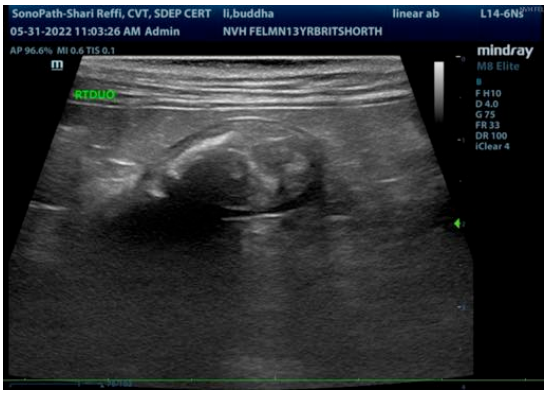

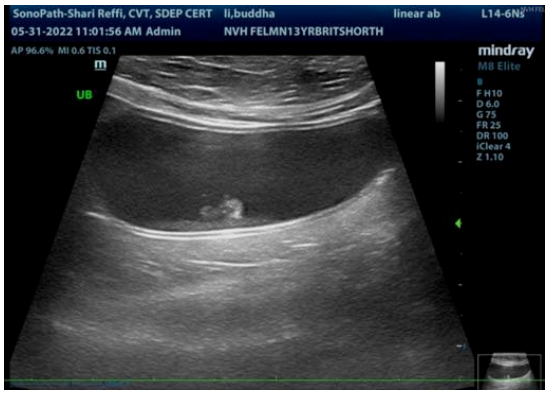

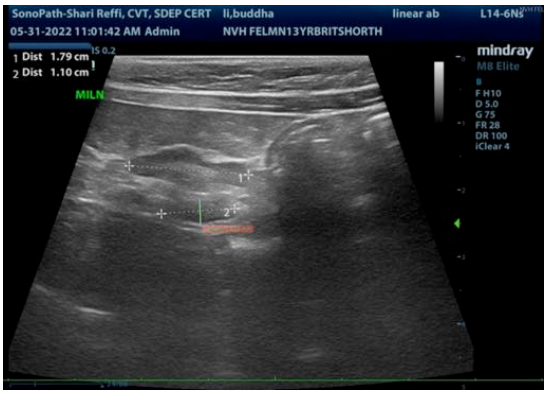

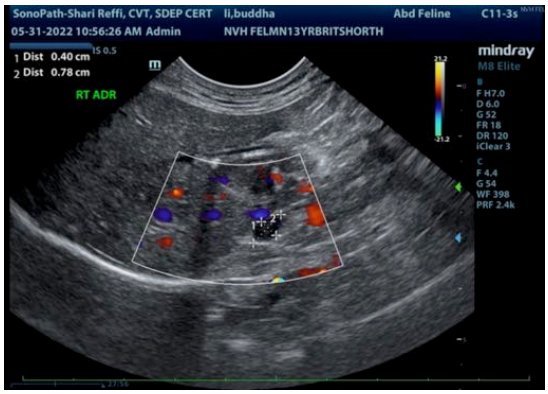

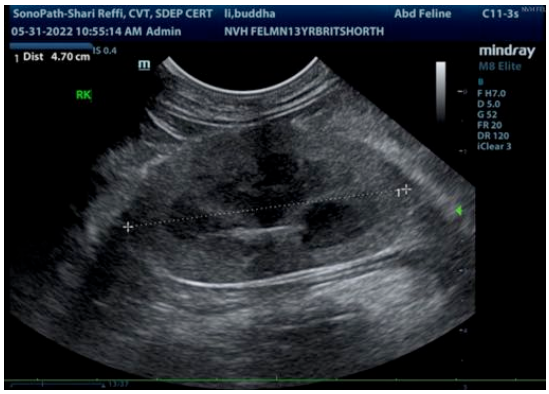

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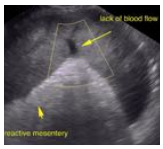

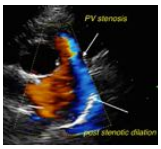

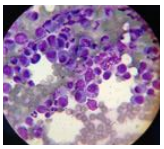
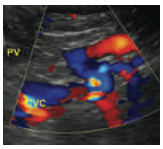

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PATIENT

Buddha Li

SPECIES

Feline

BREED

British Shorthair

SEX

Neutered male

AGE

13 years

WEIGHT

10 lbs

INTERPRETED BY

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Kim

INVOICE

30790

DATE

5/31/22

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

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