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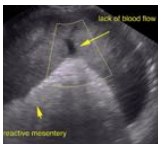
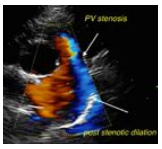
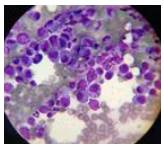
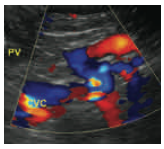

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1-800-838-4268 info@sonopath.com

PATIENT
Jerome Hamling

SPECIES
Canine

BREED
Yorkshire Terrier

SEX
Neutered male

AGE
6 years

WEIGHT
16.8 lbs

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY
Amanda Crook SDEP Certified Clinical Sonographer

HOSPITAL NAME
Rivers Edge Pet Medical Center

REFERRING VET
Dr. Hayes

INVOICE
98051

DATE
4/5/22

PRESENTING CLINICAL SIGNS

History: History of sensitive stomach. Chronic vomiting and some diarrhea x 2 weeks, gradual loss of appetite, mild weight loss. Now not eating. Keeping water down. Rx doxycycline for cough, now not coughing.
Abnormal PE/Chem/CBC/UA Results: NSF (3/24), Fecal = negative Radiographs: See attached, somewhat enlarged liver, mild bronchial pattern
Radiographs revealed moderate to marked hepatomegaly with deviation of the stomach axis. There is a small amount of gas observed throughout the entire intestinal tract. Air in the descending colon. The lungs show a mixed, interstitial peri-bronchial lung pattern.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is adequately filled. The wall is smooth and regular. No abnormalities are present with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

The prostate is homogenous and within normal limits for a neutered male.

The left kidney measures 4.26 cm (within normal limits). The capsule is smooth. However, the cortex is mildly hyperechoic and a mild loss of the normal definition of the corticomedullary junction is present. A thin, hyperechoic line is observed within the medulla traversing parallel to the corticomedullary junction. Mild mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia.

The right kidney measures 4.16 cm (within normal limits). The capsule is smooth. However, the cortex is mildly hyperechoic and a mild loss of the normal definition of the corticomedullary junction is present. A thin, hyperechoic line is observed within the medulla traversing parallel to the corticomedullary junction. Mild mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia.

Adrenal Glands

The cranial pole of the left adrenal gland is mildly enlarged at 0.67 cm. It is rounded and plump without evidence of a nodule or mass. The caudal pole measures 0.52 cm and 1.91 cm in length.

The cranial pole of the right adrenal gland is markedly enlarged and is triangular in shape; it measures 1.11 cm. The caudal pole is within normal limits at 0.55 cm and 1.6 cm in length.

There are no abnormalities with their echogenicity or echotexture. Adrenal hyperplasia secondary to stress (chronic illness) and hyperadrenocorticism (HAC) are differential diagnoses.

Spleen

The spleen is within normal limits in size, architecture, echotexture, and echogenicity. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

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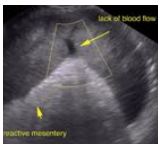

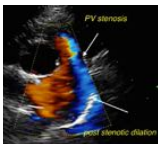

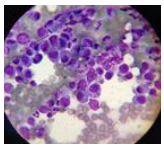
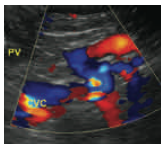

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Liver

Subjectively, the liver appears enlarged and "swollen", yet still has smooth and sharp borders. It is diffusely hyperechoic and is mildly granular in echotexture. No abnormalities are observed with the hepatic vessels. There are no obvious signs of neoplasia.

The gall bladder wall is within normal limits in thickness and echogenicity. There is no evidence of echogenic material (sludge) within the GB or edema surrounding it. The cystic and common bile ducts are not visualized, however, there are no obvious signs of an obstruction.

Gastrointestinal

The gastric wall is within normal limits in thickness and there is no loss of definition of the normal architecture of the wall layers, until images of the left liver are obtained for evaluation. When evaluated in this position, the mucosa of the stomach is severely hypoechoic and thickened, measuring up to 1.3 cm. A marked loss of definition of the wall layers is also noted. A large amount of fluid and gas are observed in the stomach lumen and a severe ileus is present. The mesentery surrounding the stomach is severely hyperechoic.

Although the small intestinal wall thickness remains within the normal reference range, marked stippling and striations are noted, in addition to a prominent mucosa. Multiple loops of jejunum are corrugated. The mesentery surrounding the gastrointestinal tract is hyperechoic throughout the abdomen.

The colonic wall is not thickened and mural detail is considered normal. There are no obvious signs of a mass, foreign body, or an obstruction.

Pancreas

The left pancreas is markedly enlarged and hypoechoic with irregular borders. The surrounding mesentery is extremely hyperechoic. A heterogenous structure measuring 2.16 cm in diameter x 2.25 cm in length is observed. It has a hypoechoic center with multiple punctate hyperechoic foci surrounded by the hypoechoic pancreatic parenchyma. The structure itself is avascular, however, the surrounding region is very well vascularized. A FNA cannot be performed without risks. This structure is most consistent with a cyst and possible phlegmon.

The right pancreas is also severely enlarged with irregular borders. It is severely heterogenous with hypoechoic nodules of variable size as well as hyperechoic foci. The mesentery surrounding the right pancreas and body are very hyperechoic. Multiple hypoechoic nodules of variable sizes are observed. Although these may be consistent with carcinomatosis, nodular hyperplasia remains highly possible.

The body of the pancreas has a similar appearance to the right limb.

Other:

A hypoechoic lymph node is observed in the vicinity of the right limb of the pancreas and measures 9.9 mm in diameter x 5.12 mm in length.

Abdominal effusion is not visualized.

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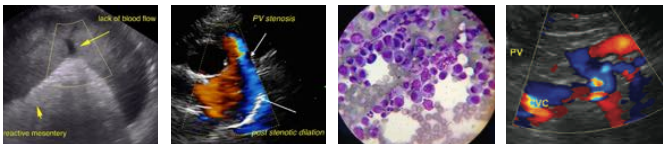

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Heart

A brief video clip of the heart was submitted. No pericardial or pleural effusion is identified. A possible arrhythmia is observed, however, a sinus arrhythmia cannot be excluded.

ULTRASONOGRAPHIC FINDINGS

- High index of suspicion of acute pancreatitis with the presence of a phlegmon. Necrotizing pancreatitis cannot be excluded. A pancreatic adenocarcinoma is another differential diagnosis, but is not considered as likely.
- Severe ileus and possible gastritis, however, one cannot exclude infiltrative neoplasia The presence of striations of the intestinal tract are suggestive of lymphangiectasia, yet underlying inflammatory bowel disease must be considered.
- A reactive and vacuolar hepatopathy are suspected.
- The findings of the adrenal glands may be incidental. Their enlargement may be due to a benign adenoma or hyperplasia due to chronic stress (illness), as well as pituitary dependent hyperadrenocorticism. There are no signs of a mass. A re-evaluation of the adrenal glands may be performed in 2-3 months.
- Mild degenerative changes of both kidneys are observed, which are suggestive of age related degeneration.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Blood work should be repeated, including a blood smear to assess for toxic neutrophils.

A fine needle aspirate of the right limb of the pancreas may be performed.

Aggressive therapy for the treatment of pancreatitis is recommended, including analgesia, such as lidocaine and ketamine CRI's, as well as an opioid, for example, buprenorphine or fentanyl.

Doxycycline should be discontinued, if possible, as Jerome may have developed nausea and dysbiosis.

Jerome is an extremely complicated patient, and although some treatment recommendations have been described, an internal medicine consult is suggested in order to describe all possible options in further detail.

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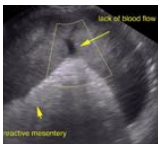
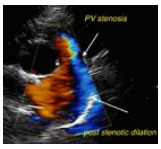
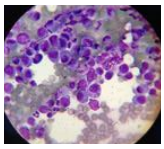
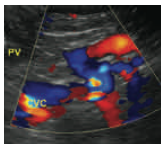

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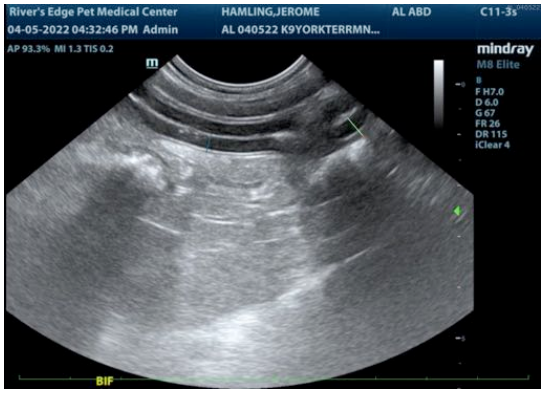

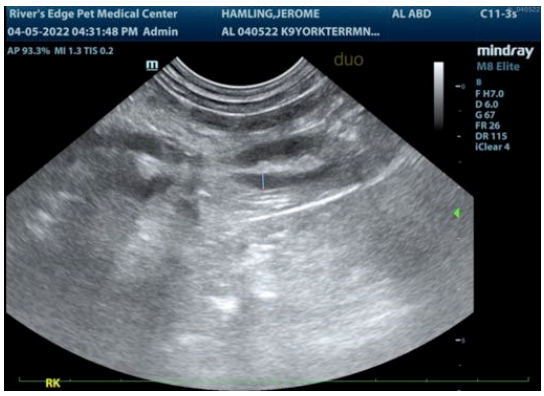

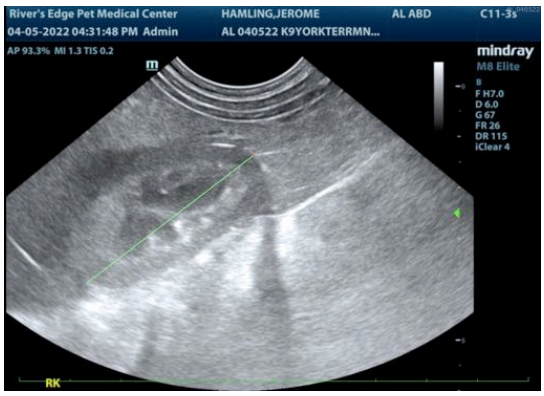

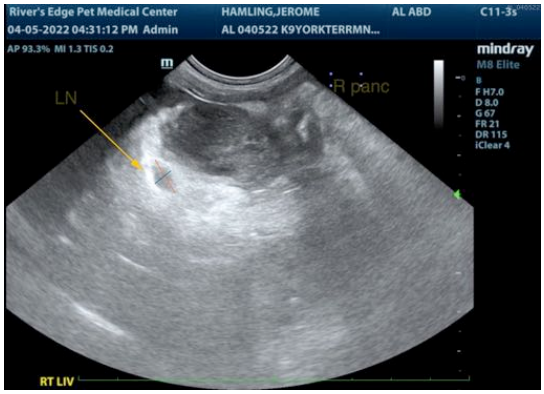

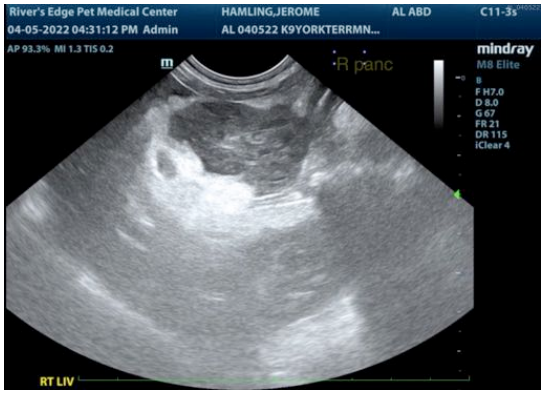

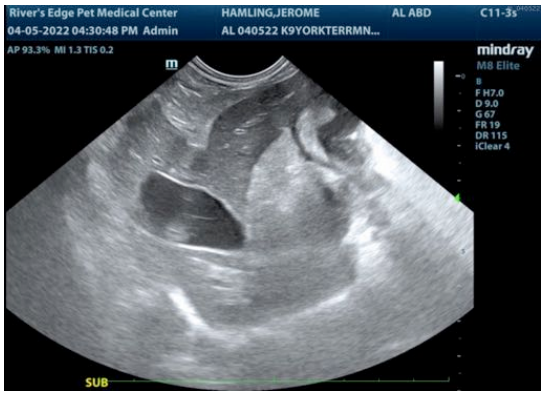

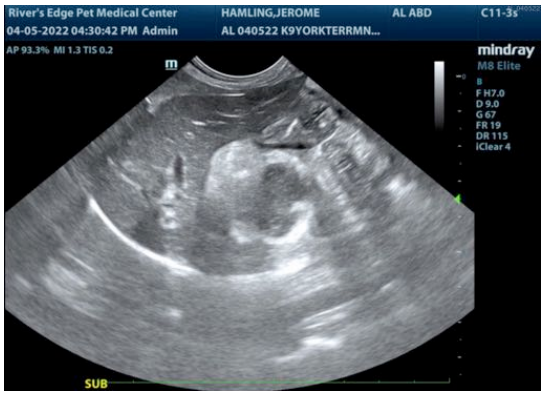

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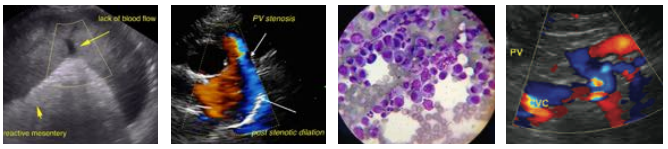

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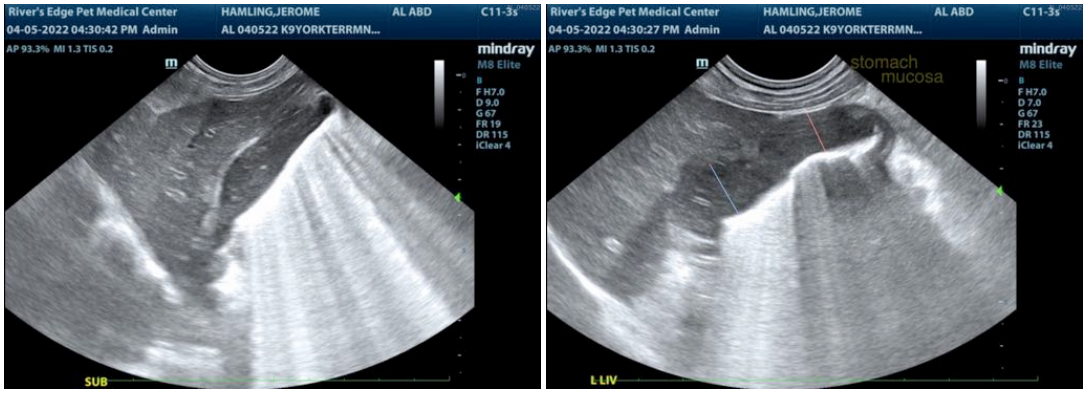

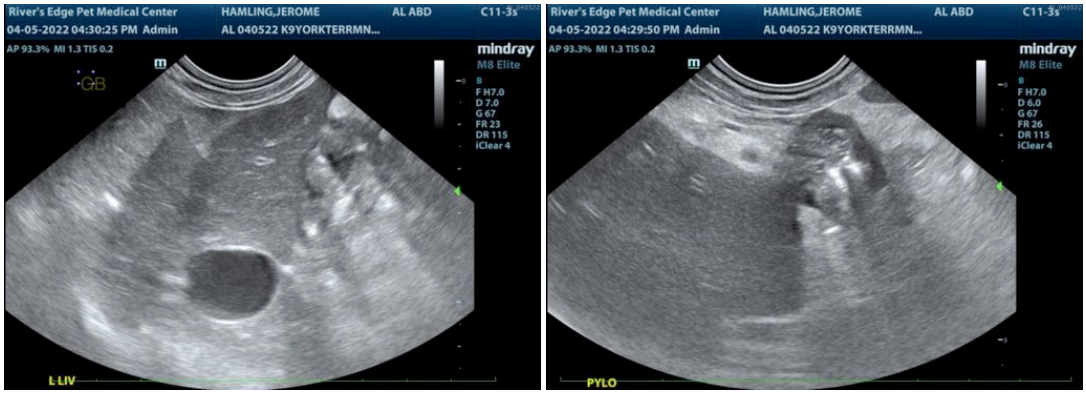

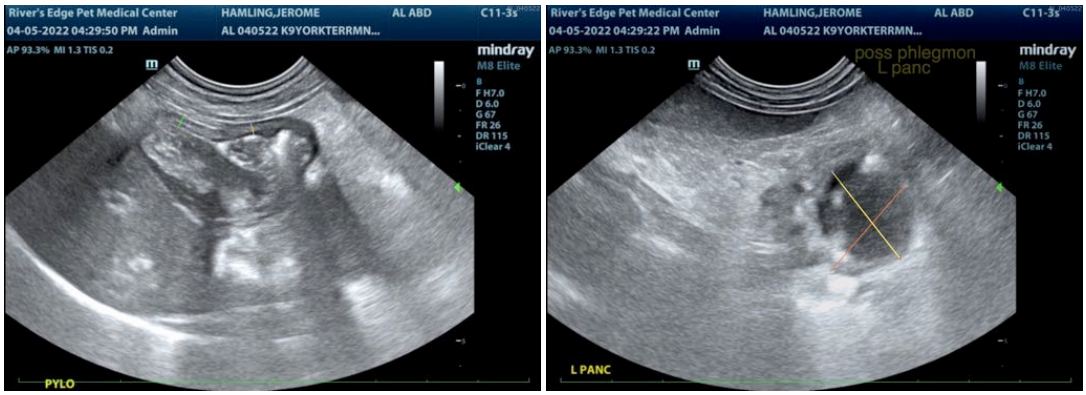

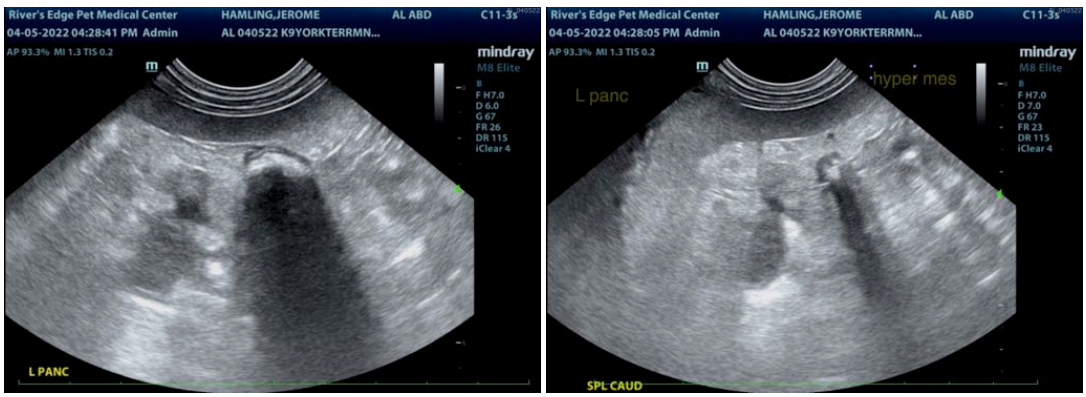

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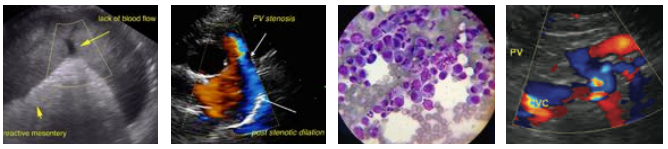

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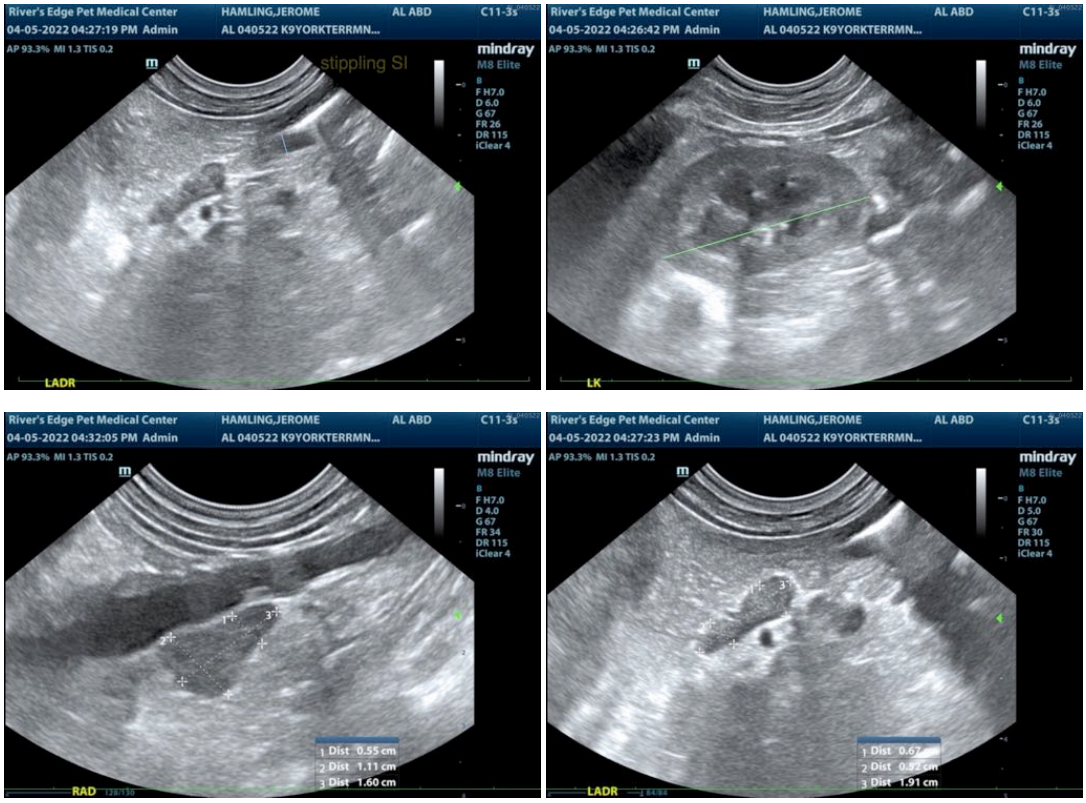

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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