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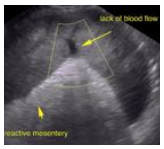

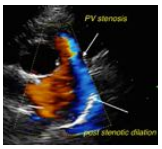

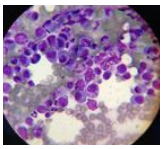
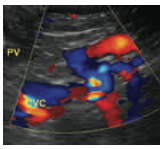

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1-800-838-4268 info@sonopath.com

PATIENT
Jimmy Miller

SPECIES
Canine

BREED
Mix

SEX
Neutered male

AGE
11 years

WEIGHT
71 lbs

INTERPRETED BY
Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY
Jessica Miller, RDMS

HOSPITAL NAME
American AH

REFERRING VET
Dr. Stockmal

INVOICE
30189

DATE
5/9/22

PRESENTING CLINICAL SIGNS

Borborygmus, decreased appetite, lethargic, recurring issue making sure nothing is brewing. Current meds: Apoquel 16mg SID, Metronidazole 250mg 1/2 BID
Abnormal PE/Chem/CBC/UA Results: WNL 5/2/22 UA: pH 6, 2-3 WBC, 1+ Protein SG: 1.049

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 noted with the trigone or proximal urethra, and there is no evidence of sediment, cystoliths, polyps or a mass.

Prostate

The prostate measures 1.38 cm in diameter. It is homogenous except for two hyperechoic nodules. It is within normal limits for a neutered male.

Multiple hyperechoic regions that do not cause acoustic shadowing are observed in the prostate.

1. 3.8 mm in diameter x 3.6 mm in length
2. 6.8 mm in diameter x 6.0 mm in length

Kidneys

The **left** kidney measures 7.45 cm. The capsule is smooth. The cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. The medulla is circumferentially hyperechoic at the junction of the corticomedullary junction. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. An anechoic structure, which is consistent with a cyst, measures 0.58 cm in diameter x 0.65 cm in length. An accumulation of intrapelvic fat is noted. Blood flow is adequate. The surrounding mesentery is not hyperechoic.

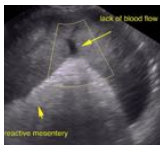
The **right** kidney measures 6.81 cm. The capsule is smooth. The cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Mineralizations of the diverticulae and pelvis are present, without evidence of nephroliths or pyelectasia. Blood flow is adequate. The surrounding mesentery is not hyperechoic.

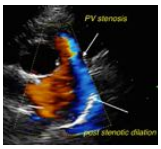
Aortic bifurcation/trifurcation

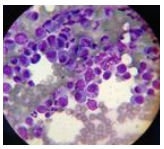
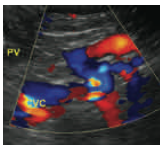
No abnormalities observed.

Adrenal Glands

The **left** adrenal gland measures 0.51 cm at the cranial pole, 0.50 cm at the caudal pole and 2.71 cm in length. 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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The **right** adrenal gland measures 0.49 cm at the cranial pole, 0.59 cm at the caudal pole and 2.26 cm in length. The cranial pole is "pudgy" and "rounded", however, an obvious mass or nodule is not observed. No abnormalities are noted with the gland's overall echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

Spleen

The spleen is within normal limits in size, architecture and echogenicity. A subtle, but diffuse, "moth eaten" appearance is observed, in addition to occasional hypoechoic nodules. One nodule measures 0.86 cm in diameter x 0.98 cm in length. A second nodule, measuring 0.69 cm in diameter x 1.0 cm in length is also noted. 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 and its borders are smooth and sharp. The liver's echotexture is homogeneous. It is mildly hyperechoic; i.e., it is mildly hyperechoic to the falciform fat, and isoechoic to the spleen. No abnormalities are observed with the hepatic vessels visualized.

The gallbladder wall is within normal limits in thickness and echogenicity. A trivial amount of echogenic material is present within the GB. The portions of the cystic and/or common bile ducts observed are not dilated or tortuous, i.e. there are no signs of an obstruction. The parenchyma ventral to the GB is hyperechoic. There is no evidence of cholelithiasis.

Gastrointestinal

A large amount of gas and some fluid are present within the stomach. The gastric wall is at the high end of the normal reference range in thickness (0.52 cm). Loss of definition of the wall layers is noted. Both thickening and fogging of the mucosa are present. No obvious abnormalities are observed with its peristalsis.

The duodenum measures 0.40 cm. Fogging of the mucosa is present, and both fluid and gas are present within the lumen.

The small intestinal wall thickness is within normal limits and the definition of the wall layers is preserved. However, fogging of the mucosa of the small intestines is observed, in addition to a few loops of jejunum that are mildly corrugated. There is no evidence of a foreign body. Abnormally dilated loops of bowel are not observed.

Gas and ingesta are present in the transverse colon.

The colonic wall is mildly thickened at 0.22 cm. Mural detail is considered normal.

Pancreas

No overt abnormalities are observed with the echogenicity or echotexture of the either limb. There is no evidence of hyperechogenicity of the surrounding mesentery, i.e., signs of active pancreatitis are not present.

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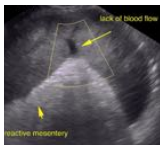

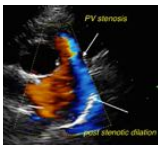

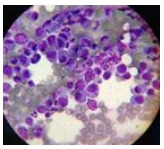
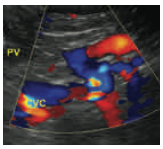

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Other

Lymph nodes An iliac lymph node is mildly enlarged at 0.65 cm x 1.37 cm. It is within normal limits in echotexture, and echogenicity.

No other abnormalities are observed

Abdominal effusion

A scant amount of anechoic fluid is observed between the diaphragm and liver on the subcostal view.

ULTRASONOGRAPHIC FINDINGS

- Differential diagnoses for the changes in the splenic echotexture include extramedullary hematopoiesis, hypersplenism and reactive hyperplasia. Other differential diagnoses include splenitis due to antigenic stimulation and secondary inflammation, including immune mediated induced inflammation. Neoplasia, such as lymphoma, mast cell tumour, histiocytic sarcoma, or other round cell tumour, is considered less likely, but cannot be excluded. A fine needle aspirate is required to obtain a definitive diagnosis.
- The diffuse hyperechogenicity of the liver is suggestive of a vacuolar hepatopathy, which may occur due to stress or chronic illness. Hyperadrenocorticism is not consistent with clinical signs or sonographic findings.
- The abnormalities observed with the stomach and intestinal tract are suggestive of inflammation. Differential diagnoses include inflammation secondary to inflammatory bowel disease. However, infiltrative disease, such as lymphoma or mast cell tumour, cannot be excluded. The very mildly enlarged iliac lymph node may be due to reactive hyperplasia.
- Mild to moderate renal changes are present, which are suggestive of age related degeneration. The cyst present in the left kidney is considered benign and not clinically significant.
- The scant amount of anechoic fluid observed between the diaphragm and liver may be physiological, however, vasculitis cannot be excluded.
- The hyperechoic nodules noted within the prostate may be due to mineralization, fibrosis and fat. There are no obvious signs of neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A baseline (random) cortisol is strongly recommended to exclude hypoadrenocorticism.

An evaluation of Jimmy's albumin is suggested to ensure hypoalbuminemia is not the cause of effusion.

Other diagnostic tests to consider include a spec cPL, cobalamin and folate to exclude smoldering pancreatitis, despite the absence of sonographic abnormalities, a cobalamin deficiency and dysbiosis, respectively.

Analgesia for visceral pain, such as gabapentin, is suggested. An opioid may also be considered, although opioids may cause ileus.

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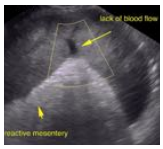
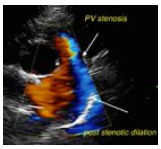
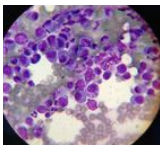
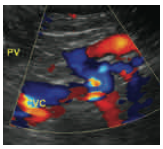

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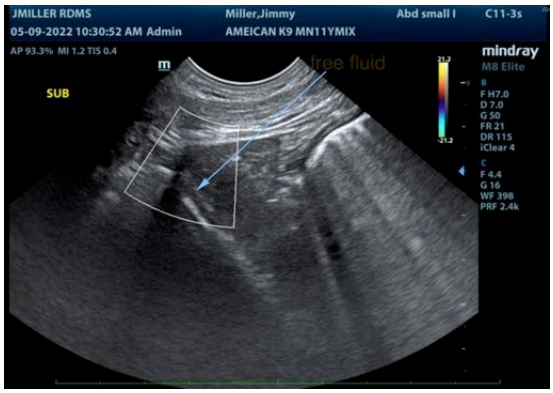
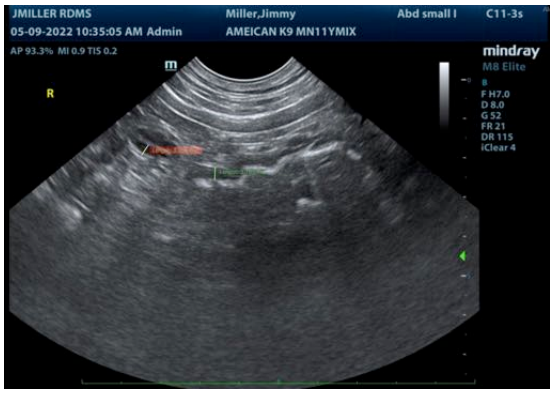
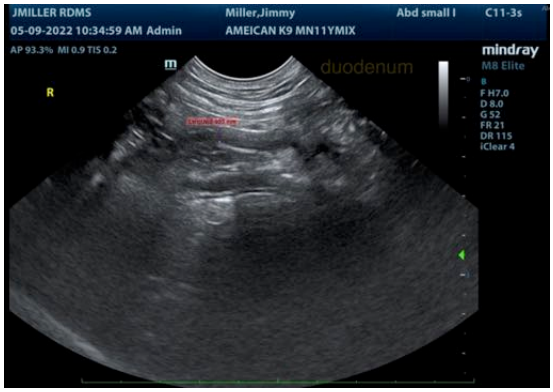
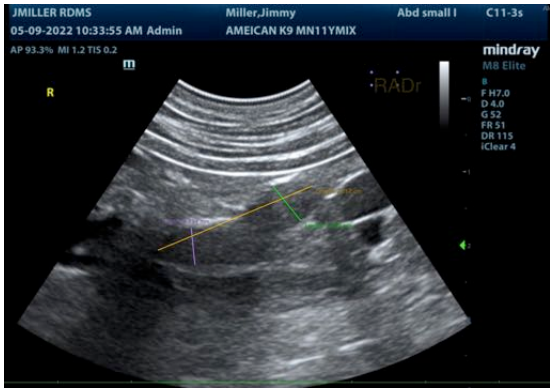
Deworming with a broad spectrum dewormer is suggested.

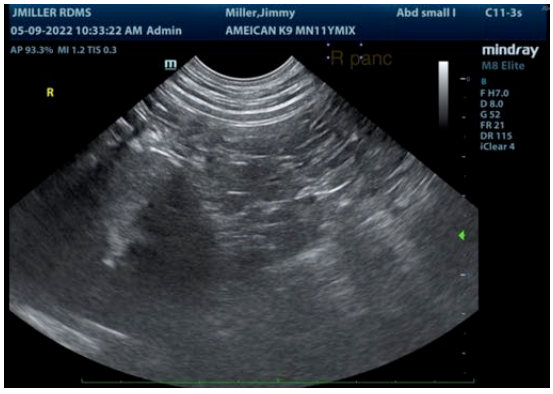
A veterinary prescription brand hypoallergenic diet, whether hydrolyzed or novel protein, is suggested. Multiple diets may be required. Another option is to use a diet that is high in soluble fibre and supplemented with pre and probiotics, such as, Hill's Biome, if available. If not available, an easily digestible diet supplemented with psyllium and a synbiotic, (i.e., a combination of a pre and probiotic).

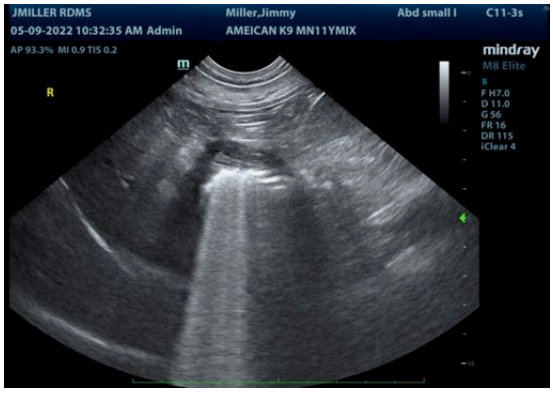












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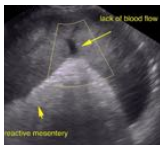

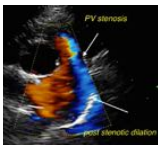

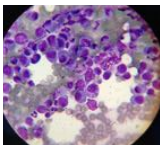
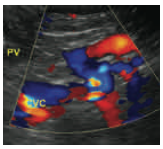

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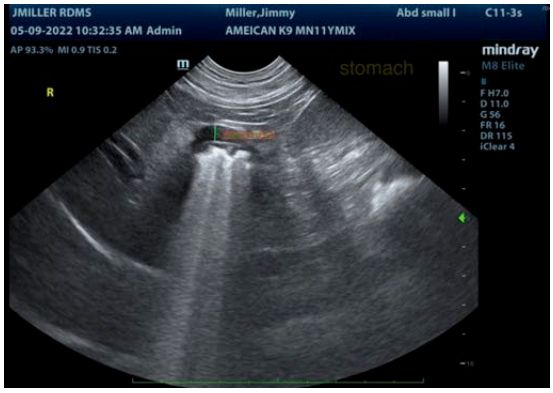

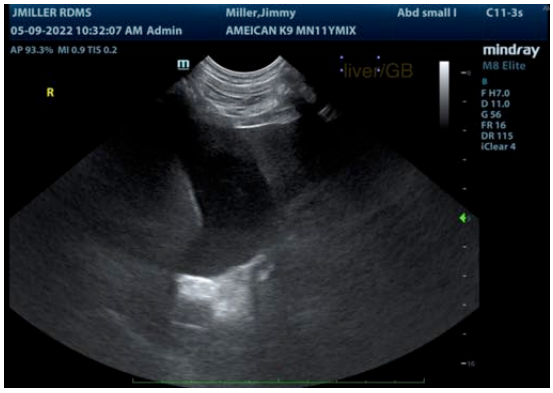

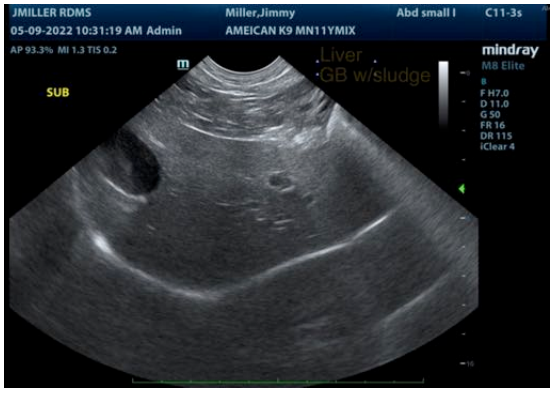

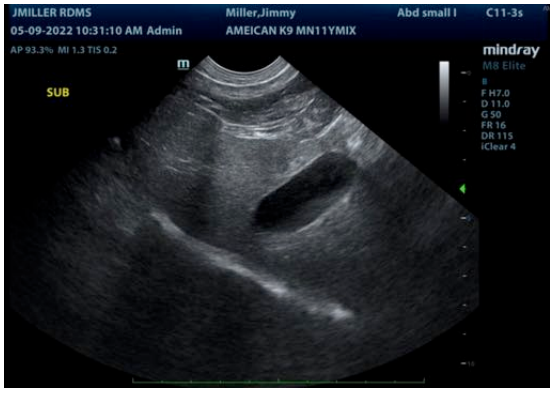

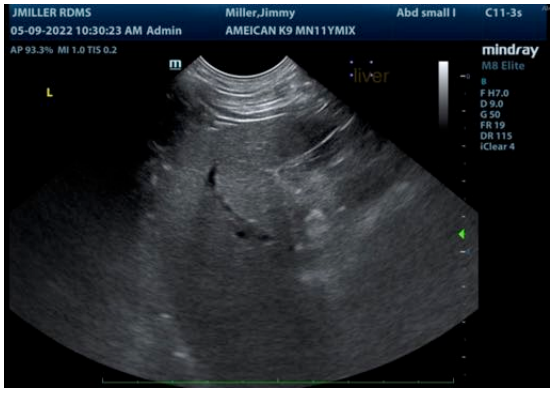

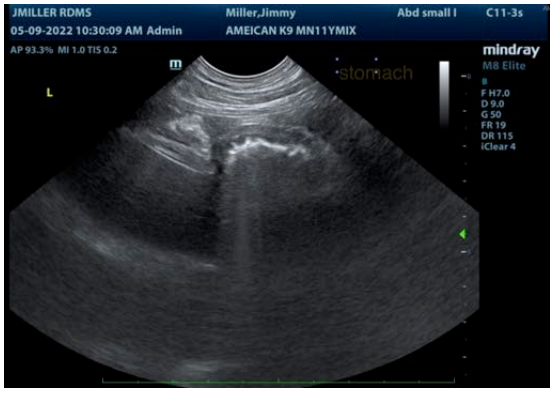

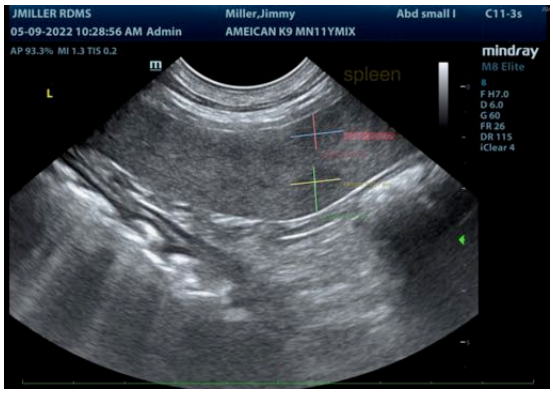

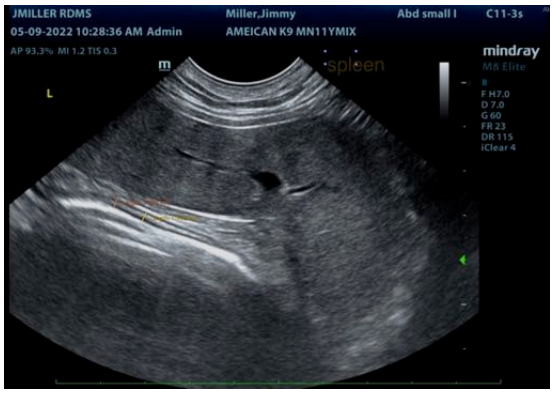

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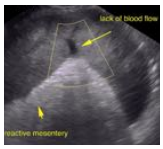
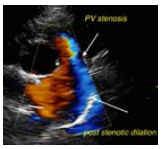
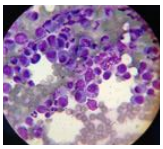
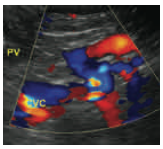

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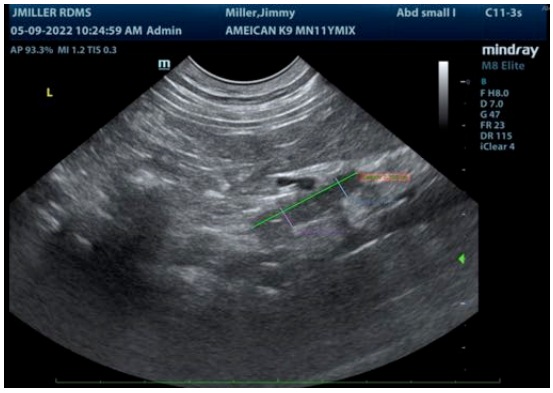

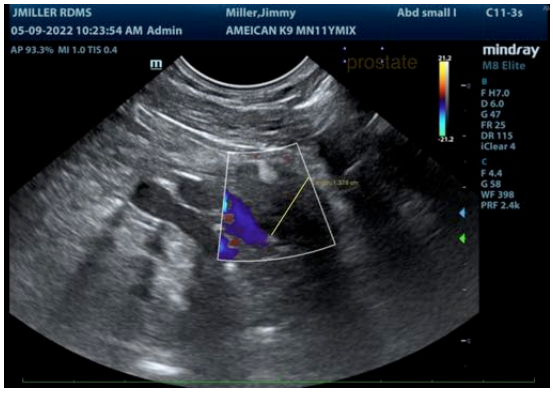

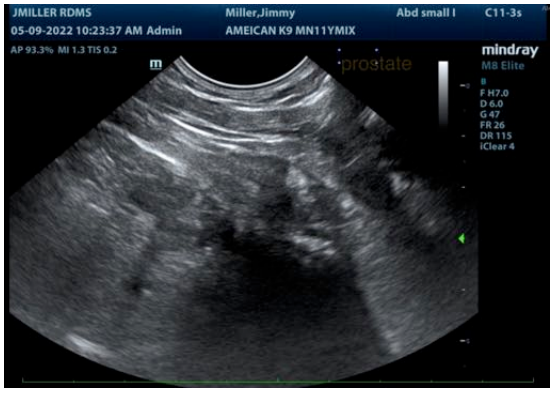

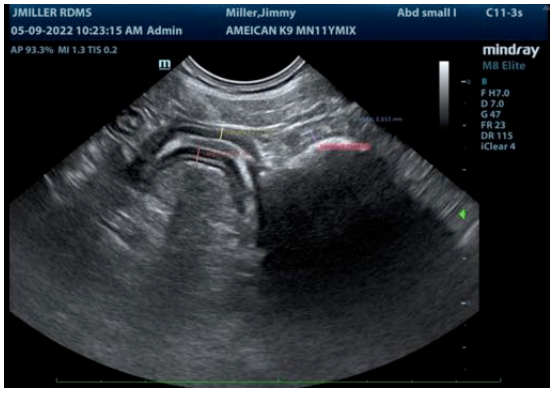

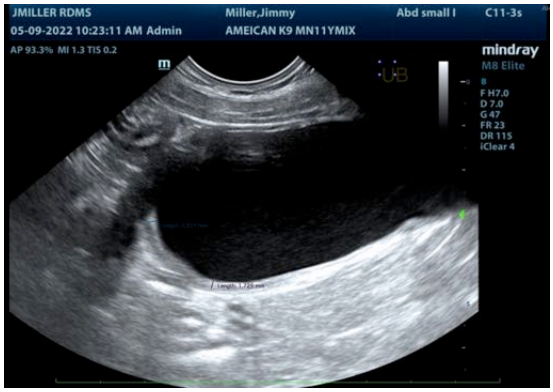

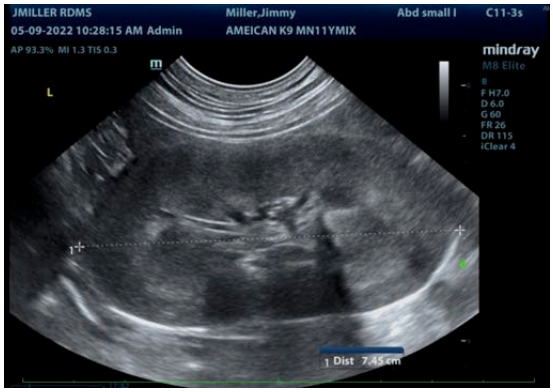

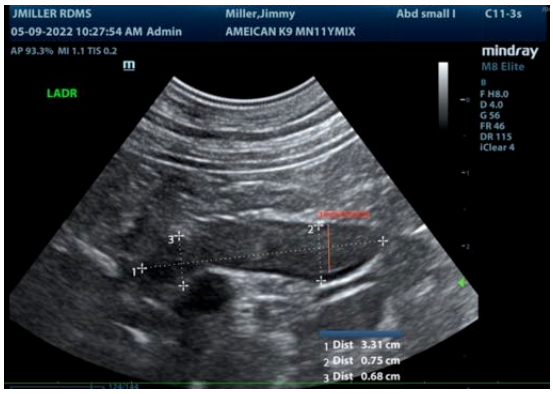

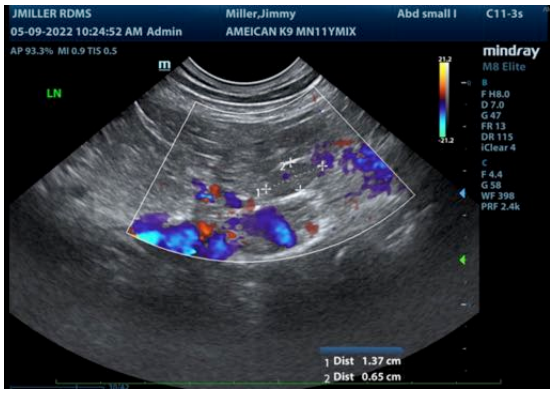

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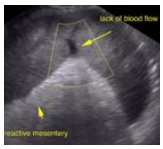
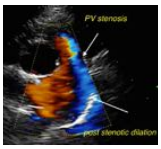
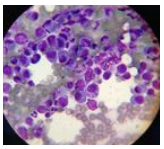
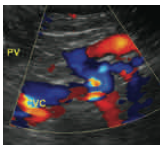

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PATIENT

Jimmy Miller

SPECIES

Canine

BREED

Mix

SEX

Neutered male

AGE

11 years

WEIGHT

71 lbs

INTERPRETED BY

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

American AH

REFERRING VET

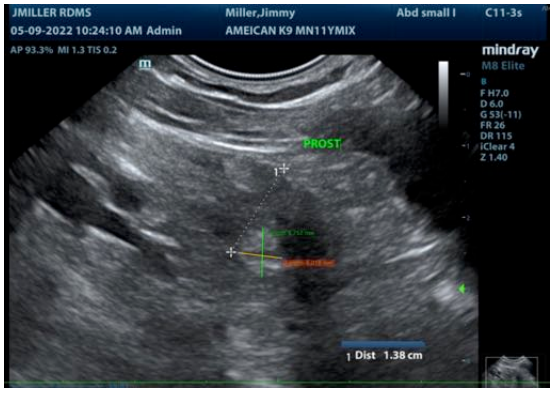
Dr. Stockmal

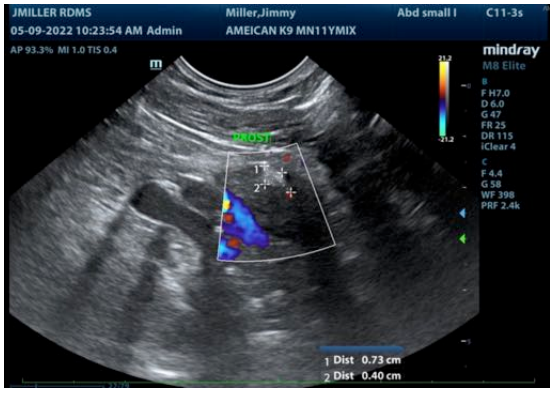
INVOICE

30189

DATE

5/9/22





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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