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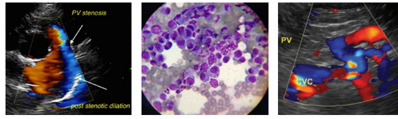


SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

3/18/22

PATIENT

Wade Evans

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

5/1/14

WEIGHT

10 Pounds

INTERPRETED BY

Lisa Carioto, DVM, DVSc, Diplomate ACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Timonium AH

REFERRING VET

Dr. Brand

INVOICE

36293

PRESENTING CLINICAL SIGNS

2/16/22 presented with history of weight loss, increase in vomiting and urinating outside of the litter box. Started on Felimazole 5mg BID. Recheck 3/16/22- vomiting improved initially but has restarted, no weight gain despite normalized T4, still urinating outside of litterbox. Hx of FIV +.

Current Medications: Felimazole 5mg BID started 2/16/22.
Lab Results: 2/16/22- ALT 419, ALP 151, T4 13. 3/16/22 – ALT 412, T4 1.2.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 cystoliths, polyps or a mass. A trivial to small amount of free floating sediment is present, most likely composed of mucus, crystalline material and exfoliated cells. The mild amount of debris is likely clinically insignificant given the lack of inflammatory changes to bladder wall.

The left kidney is within normal limits in size for the patient's weight (4.51 cm), albeit at the high end of the normal reference range. The capsule is smooth, however, the cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. A nephrolith measuring 0.84 cm is present within the pelvis. It is not causing an obstruction. The surrounding mesentery is not hyperechoic.

The right kidney is very mildly enlarged (4.78 cm). The capsule is smooth, however, the cortex is mildly hyperechoic and a mild loss of the normal definition of the cortico-medullary junction is present. Very small, punctate, mineralizations of the diverticulae are present without evidence of nephroliths or pyelectasia. The surrounding mesentery is not hyperechoic.

Adrenal Glands

The left adrenal gland measures 0.46 cm. No abnormalities are noted with the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

The right adrenal gland measures 0.55 cm at the cranial pole and 0.44 cm at the caudal pole. No abnormalities are noted with the gland's shape, overall architecture, echogenicity or echotexture. The phrenico-abdominal vein and surrounding vasculature and mesentery are unremarkable.

Spleen

Splenomegaly (14 mm), however, it is within normal limits in architecture, echotexture, and echogenicity. It is hyperechoic to both the liver and renal cortex. The capsule is smooth. No abnormalities are observed with its vasculature, i.e. congestion and thrombi are not identified.

Liver

Subjectively, the liver appears mildly enlarged and borders are mildly to moderately rounded. A mass effect is present in the right lobe of the liver. It measures 2.9 cm in length x 3.0 cm in diameter and is avascular. It is of mixed echogenicity with elongated cavitary lesions. Ill-defined hyperechoic "patches" are dispersed within the mass. The remainder of the liver is diffusely hyperechoic, i.e., it is mildly hyperechoic to the falciform fat. Hepatic veins appear mildly congested. Portal hypertension is suspected. A hepatic lymph node, which is mildly enlarged (6.0 mm x 6.5 mm), is mildly hypoechoic, surrounded by a hyperechoic mesentery.

The gall bladder wall appears to be within normal limits in thickness and echogenicity. There is a mild amount of sediment The cystic and common bile ducts are not dilated or tortuous.

Gastrointestinal
The gastric wall and pylorus are normal in thickness. The stomach is filled with food. There is no loss of definition of the normal architecture of the layers of the stomach wall. No obvious abnormalities are observed with its peristalsis.

The small intestinal wall thickness is within normal limits and there is no evidence of dilation. The definition of the wall layers is preserved. The colonic wall is not thickened and mural detail is considered normal. There are no obvious signs of a mass, foreign body, infiltrative disease or an obstruction.

Pancreas
There is too much ingesta in the stomach to evaluate the pancreas properly.

Other
Lymph nodes: No other abnormalities are observed.

Abdominal effusion is not visualized.

Heart
No evidence of hypertrophic cardiomyopathy. Left atrium to aortic ratio is 1.0 : 1.02 (within normal limits). The left atrium, is very mildly enlarged 19 mm (high normal = 17 mm); this is not likely clinically significant.

ULTRASONOGRAPHIC FINDINGS

- Differential diagnoses for the hepatic mass include a cyst adenoma, cyst adenocarcinoma, as well as an adenocarcinoma. Cystadenomas are more common and are benign. Fine needle aspirates cannot always differentiate the two, therefore, a biopsy is usually necessary to achieve a definitive diagnosis. If a fine needle aspirate is pursued, it will be important to aspirate an area that is not cystic. As previously mentioned, a biopsy is required to achieve a definitive diagnosis, however, the appearance of Wade's mass is somewhat "disorganized" and more heterogeneous with the hyperechoic regions, which increases the suspicion for an adenocarcinoma.

- Secondary cholangitis/cholangiohepatitis are suspected, which could explain a component of the elevated hepatic enzyme activities. Furthermore, hepatic lipidosis secondary to hyporexia is likely contributing to the hyperechogenicity.

- Splenomegaly with preservation of the normal architecture. Differential diagnoses include antigenic stimulation and secondary inflammation such as splenitis, as well as an immune mediated induced inflammation. Neoplasia such as lymphoma, mast cell tumor, or other round cell tumor cannot be excluded, i.e., a fine needle aspirate is required to achieve a definitive diagnosis.

- Very mild bilateral renomegaly is observed, which may be due to pyelonephritis, despite the absence of an hyperechoic mesentery or overt pain on palpation of the kidneys. There are also changes suggestive of age related degeneration.

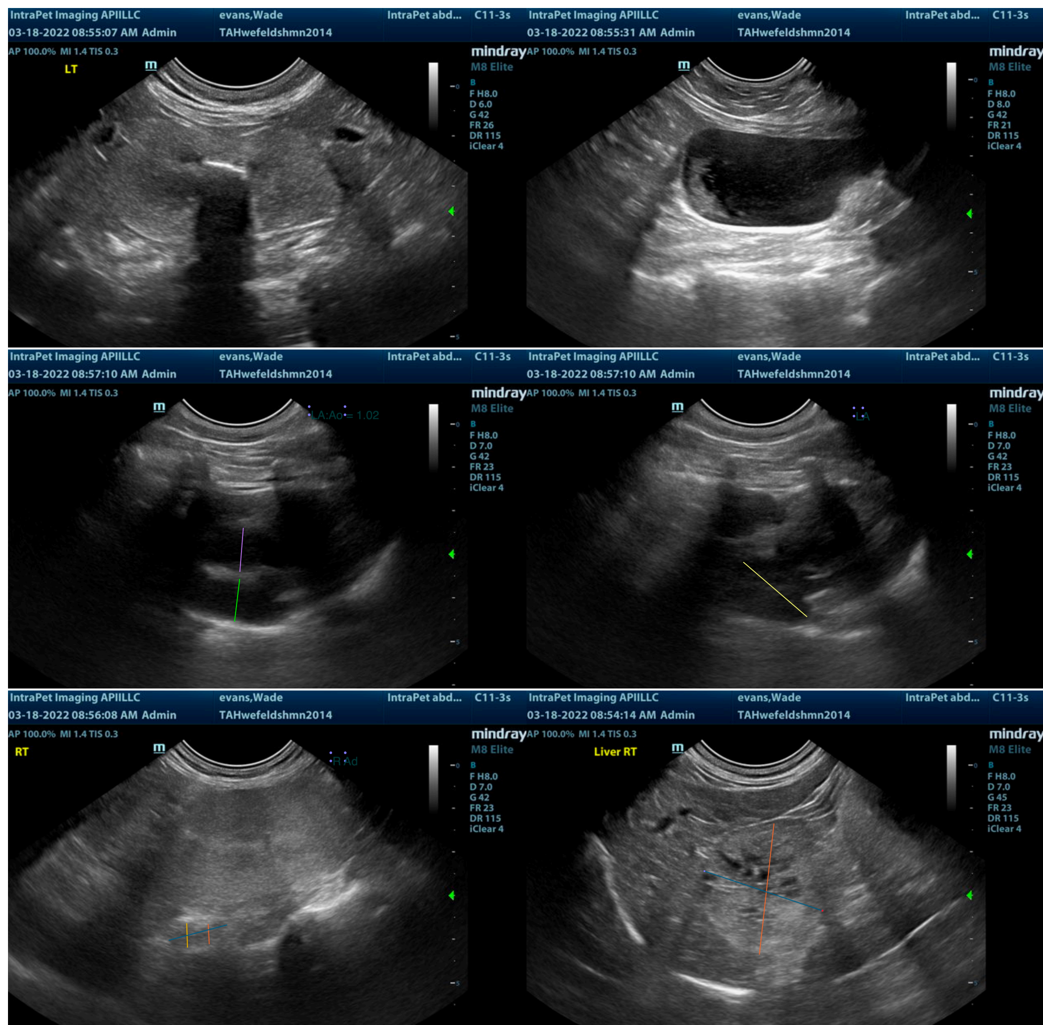
- The nephrolith within the pelvis of the left kidney is not causing an obstruction.

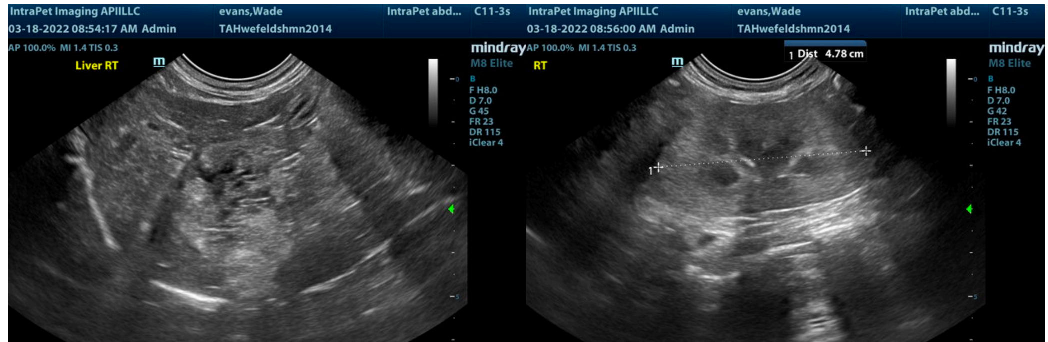
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A urine culture is recommended, however, enrofloxacin is recommended pending the results.
A decrease in the methimazole is recommended to 2.5 mg every 12 hours, as hypothyroidism is probably not making Wade feel very well. If there is no improvement within 48 hours, empirical therapy for cholangitis/cholangiohepatitis and a secondary ascending bacterial infection may be pursued. Although indiscriminate use of antibiotics is not recommended, one could start treatment with a broad-spectrum antibiotic and reassess liver enzyme activities, including a GGT, in a few weeks. Note, enrofloxacin alone may be sufficient for the treatment of cholangitis/cholangiohepatitis, although some individuals require an antibiotic which covers anaerobes.

A FNA of the liver may be pursued as it is less invasive than a tissue biopsy, however, cytology cannot always differentiate a cystadenoma from a cystadenocarcinoma.

Another option is to recheck the hepatic mass in 4-6 weeks, however, there is a risk of allowing a cystadenocarcinoma to progress during this time.





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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