IMAGING PERFORMED BY

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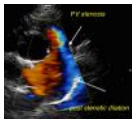
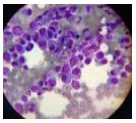
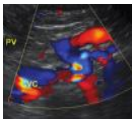

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DATE
9/12/22

PATIENT
Precious Radcliffe

SPECIES
Canine

BREED
Yorkie

SEX
Spayed Female

AGE
9/9/08

WEIGHT
8.8 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

HOSPITAL NAME
Eastern AH

REFERRING VET
Dr. Cusack

INVOICE
17269

PRESENTING CLINICAL SIGNS

History: Presenting complaint: Bleeding from rectum. No significant medical history. PE: Severe dental disease, cataracts, 1-2 cm mass effect in mid ventral abdomen, frank blood clots from rectum - anal glands small and normal contents, no abnormalities palpated on rectal exam

Current Medications: Metronidazole 15mg/kg PO BID started today
Fortiflora SA
Lab Results: Anemia - HCT 28.9%, non/pre regenerative. Leukocytosis - WBC 31.78, lymphocytes 5.83, monocytes 5.98, neutrophils 19.74 with suspected bands and toxic changes. Platelets normal (345), PT/PTT normal. Chemistry: ALP 281, otherwise wnl.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 3.9 cm. The right kidney measures 3.6 cm. Small cortical cysts are present bilaterally.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.44 cm long x 0.77 cm at the cranial pole and 0.75 cm at the caudal pole. The right adrenal gland measures 1.5 cm long x 0.57 cm at the cranial pole and 0.57 cm at the caudal pole.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). A 0.4 cm anechoic cyst is present in the mid body, non-capsule-disrupting. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. Several approximately 1.0 cm hyperechoic nodules were noted throughout the parenchyma, as well as a 2.3 cm heterogeneous but primarily hyperechoic mass caudal to the gallbladder, as well as a 1.0-2.0 cm cystic are in the mid liver. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy. There is no evidence of pericardial effusion in these images.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hyperechoic hepatomegaly with liver nodules– This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible but considered less likely. *Differentials for discrete liver nodules include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out. *The more heterogeneous appearing mass near the gallbladder is more consistent with primary hepatic neoplasia, such as a benign hepatoma or adenoma versus malignant hepatocellular carcinoma versus other sarcoma, metastatic disease, etc., however a benign nodule, similar to the nodules described above, cannot be definitively ruled out.

- Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.

- Gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Secondary Findings

- Hypo to anechoic splenic nodule – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia can mimic benign lesions, and cannot be ruled out.

- Age-related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is no ultrasonographically visible reason in these images at this time, to explain the patients reported hematochezia. Recommendations include:

A fecal exam, as well as a fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease, followed by empirical deworming with a 5-day course of Panacur, a probiotic and either the addition of fiber to the diet or transition, potentially to a higher fiber diet on a trial and error basis or a bland, easy to digest low fat or hydrolyzed diet, using each one on a trial and error basis, monitoring for benefit over 2-3 weeks before transferring to the next choice. Ultimately, if the frank blood persists, colonoscopy may be necessary to definitively visualize, diagnose and therefore manage the problem.

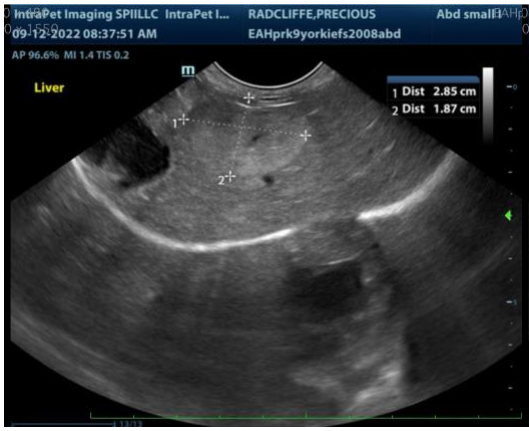
While the relationship of the liver changes to the reported clinical signs is unknown, a fine needle aspirate of the liver nodule is recommended if patients coagulation status is appropriate.

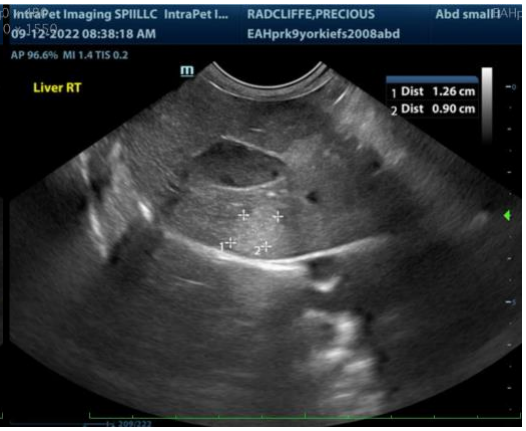
The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted.

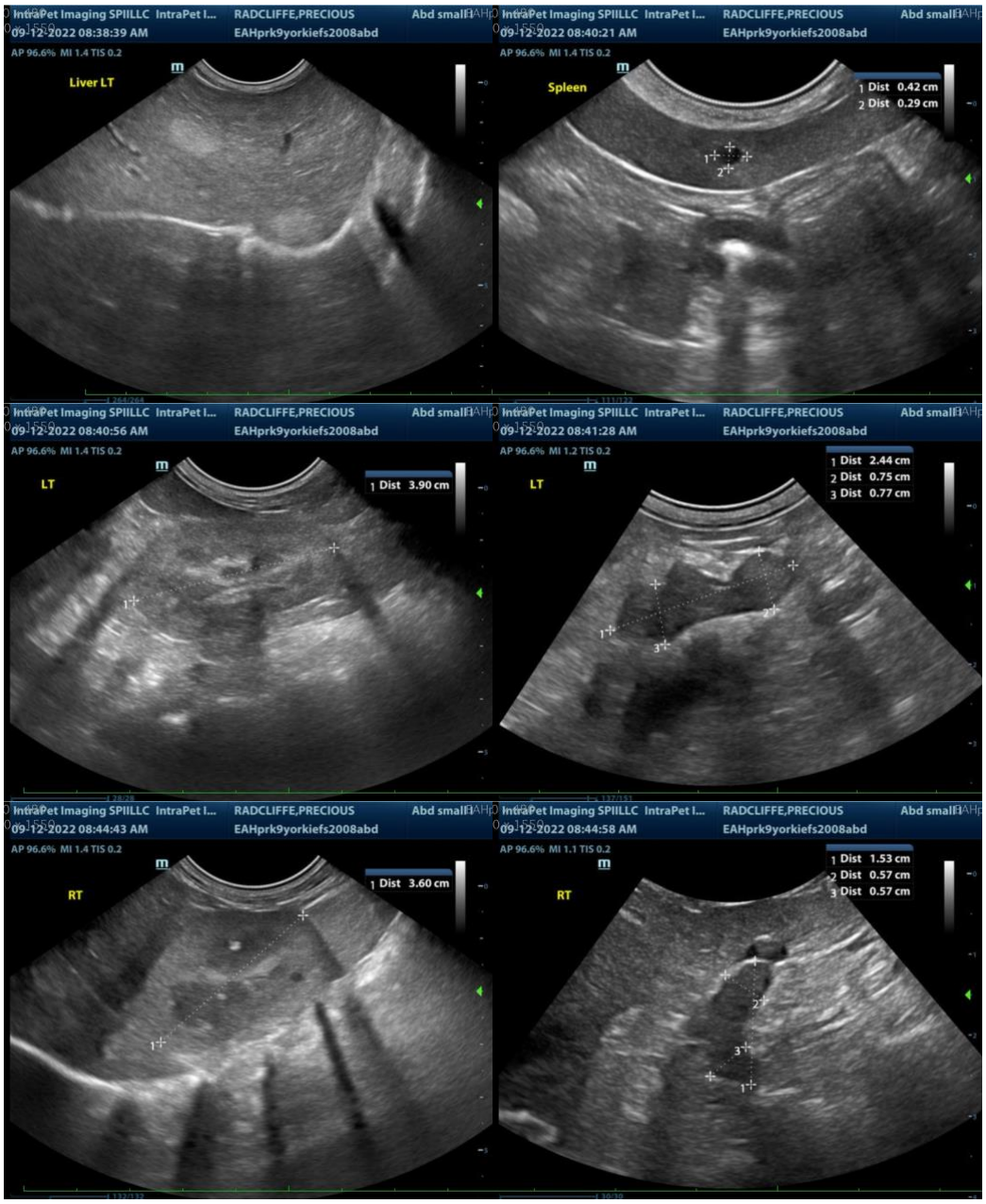
If clinicals signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop.

If not recently evaluated, blood pressure is recommended.

If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are also recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.



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Liver LT
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3 Dist 0.77 cm
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RT
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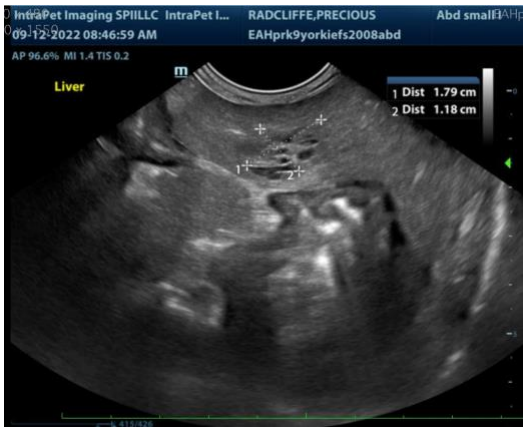
2 Dist 0.57 cm
3 Dist 0.57 cm



The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

Beth Johnson, DVM DACVIM
Beth.Johnson@SonoPath.com