



**PATIENT**

Hunter Cole

**SPECIES**

Canine

**BREED**

Pit Bull Mix

**SEX**

Male Neutered

**AGE**

11 Years 3 Months

**WEIGHT**

98 lbs.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Dr. Anderson

**HOSPITAL NAME**

Elizabeth Animal  
Hospital

**REFERRING VET**

Dr. Anderson

**INVOICE**

11904kk

**DATE**

9/27/21

**PRESENTING CLINICAL SIGNS**

History: Traveled to Kentucky last week and got home this weekend. Polydipsic, progressed to vomiting, and liquid diarrhea on Friday (3 days ago). He has been off food and lethargic. Urgent care did labs that were "normal with a mild elevation in liver enzyme typical of older dogs". Cerenia and metronidazole were prescribed. Continues to vomit (in car on the way here) and is panting now.

Abnormal PE/Chem/CBC/UA Results: PE: Mild ptialism, tense, full abdomen, normal rectal exam, tachycardic at 190bpm, bilateral stifle osteoarthritis. NSAID: ALP 243 U/L Lyte4: Normal Tick panel pending.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is mildly enlarged (2.64 cm in width) with a normal shape and smooth peripheral contours. The parenchyma is homogeneous. No focal lesions are observed. The prostatic urethra is not overtly dilated.

The left kidney is normal size (8.58 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. One to two small cortical cysts are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (8.24 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. One to two small cortical cysts are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is enlarged (3.07 cm at cranial pole) (1.14 cm at caudal pole) (5.21 cm in length) with an irregular shape. A 3.13 x 2.82 cm heterogeneous mass is observed at the cranial pole. The mass causes capsular expansion. There is mild loss of glandular detail at the caudal pole. There is no obvious evidence of vascular invasion.

The right adrenal gland is normal size (1.73 cm at cranial pole) (0.83 cm at caudal pole) (4.11 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

*Spleen*

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A 1.54 X 1.39 cm hypoechoic nodule is observed at the cranial aspect. Splenic vasculature is normal.

*Liver*

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is



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isoechoic relative to the spleen. A 3.55 x 2.80 cm ill-defined, hyperechoic mass is observed in the deep left to mid-liver. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

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***Gastrointestinal***

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The gastric lumen is mildly gas-distended. The gastric wall is normal to mildly thickened (up to 1.03 cm) with retention of the normal layering pattern. The small intestinal lumen is segmentally fluid-distended (mild). The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. The colonic lumen is diffusely fluid-distended. There is no obvious evidence of an obstructive pattern.

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***Pancreas***

The pancreas is diffusely prominent in size with slightly irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated. The mesentery effacing the serosal surface is slightly hyperechoic.

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***Free Abdomen***

There is no evidence of free fluid. A 1.46 cm gastric lymph node is visualized. Surrounding mesentery is hyperechoic.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- The pancreatic changes are suggestive of mild acute or chronic, active pancreatitis.
- The bowel changes are consistent with diffuse gastroenteritis/colitis.
- Left adrenal mass. Differentials include neoplasia (i.e., adenoma, adenocarcinoma, pheochromocytoma) versus nodular hyperplasia.

**Secondary Findings:**

- The hyperechoic liver mass trends towards the benign (i.e., regenerative nodule) with a lower possibility of malignancy.
- The hypoechoic splenic nodule could be consistent with a focus of lymphoid hyperplasia or extramedullary hematopoiesis. Alternatively, an early neoplastic process may be present.
- Mild, bilateral, age-related renal changes.
- The mild prostatomegaly could be consistent with late-in-life neutering, normal variation, or early prostatic neoplasia. Correlation with clinical findings is recommended.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

1. Given the sudden onset of gastrointestinal signs, a fecal evaluation for ova and giardia and prophylactic de-worming with Fenbendazole is recommended. Also consider a malabsorption panel to further assess for pancreatic and small intestinal disease. Supportive care for acute gastroenteritis/colitis/pancreatitis is recommended including IV fluid therapy, gastric protectants, antiemetics, and pain medication if needed. A probiotic (i.e., Visbiome or

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Provable) should also be considered.

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- Given the patient's age and the presence of the left adrenal mass, three-view thoracic radiographs are recommended.

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- Other diagnostic considerations to further evaluate the left adrenal tumor include a low-dose dexamethasone suppression test, urine/blood catecholamine levels, and a baseline blood pressure measurement.

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- If the patient was not neutered later in life and further evaluation of the prominent prostate is desired, a urine BRAF test can be considered to evaluate for lower urinary tract neoplasia.

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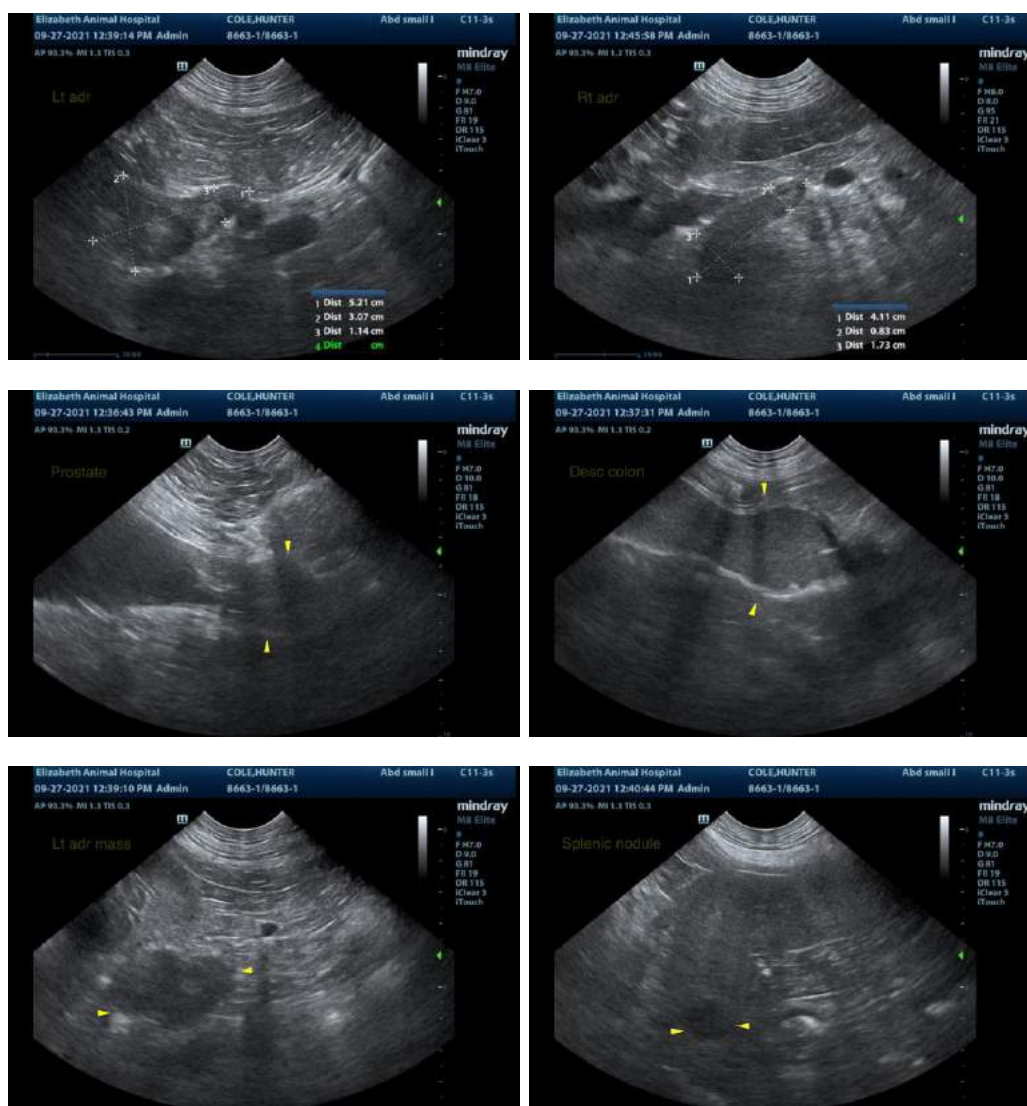
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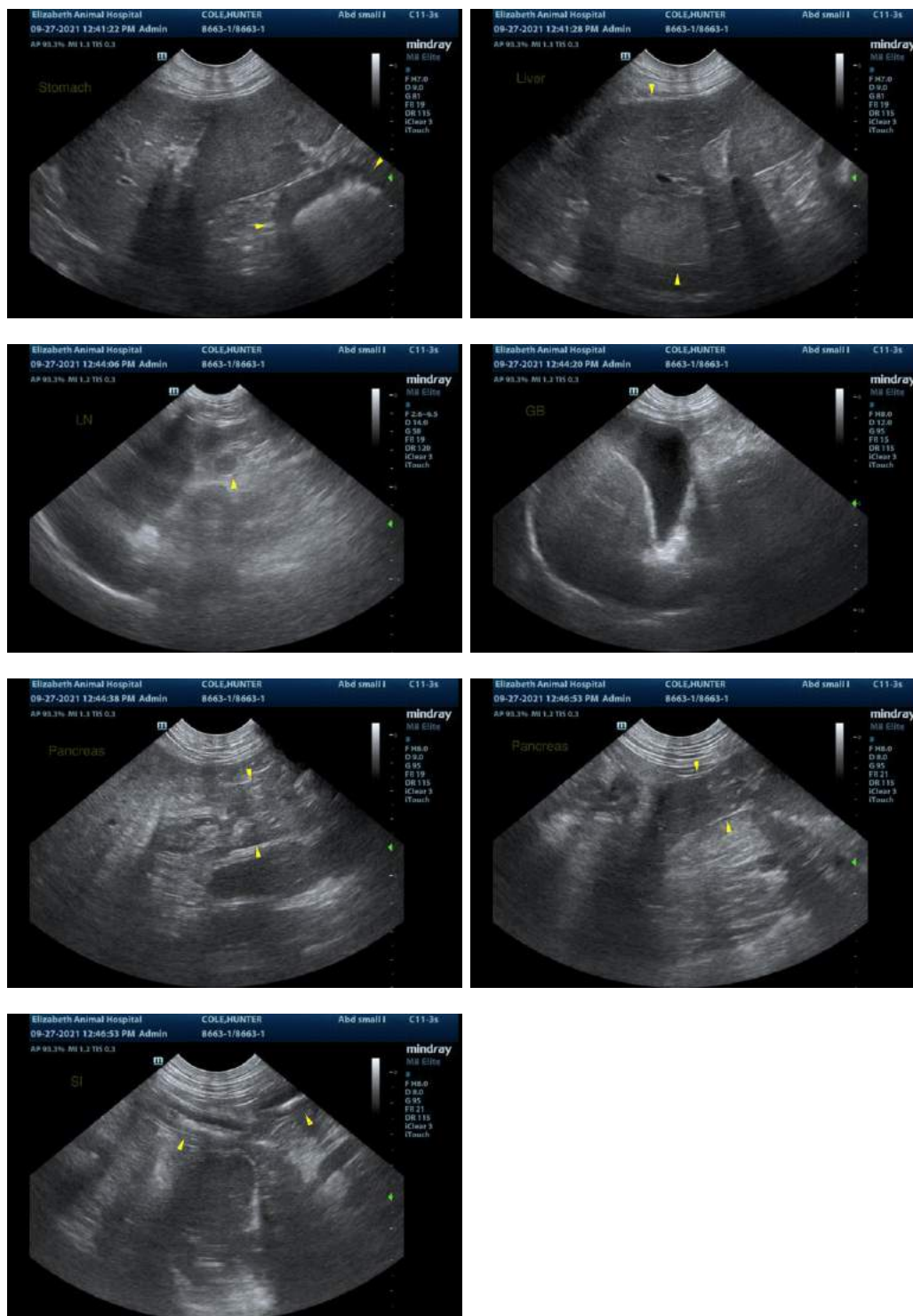
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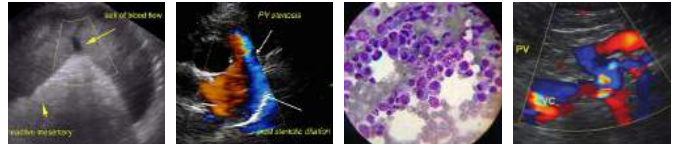
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

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