

**PATIENT PRESENTING CLINICAL SIGNS**

Tucker Crozier

**SPECIES**

Canine

**BREED**

Catahoulax

**SEX**

Neutered Male

**AGE**

12 Years

**WEIGHT**

50.6 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Fogarty

**INVOICE**

35381

**DATE**

2/2/22

Per O (DVM): He started having softer stool a few months ago, and I didn't really notice until one day he had a ton of mucus and almost looked like he passed a "tube" of tissue that could have been the inner lining of his intestines, but there was no blood (fresh or digested), he was not in pain, and his appetite was as ravenous as ever (also, not likely to have ingested a foreign body). I watched his stool for a couple more days, and no more "tissue" substances noted, but his stools were more soft, pale, portions did not seem well digested, and had a different odor than I remembered. I started him on Vit B complex injections rather than do a cobalamin/folate test or any fecal analysis. His stools are generally much better, but occasionally still mucoid or pale. No change to his appetite or general energy level and no indication of abdominal pain when I palpate.

Abnormal PE/Chem/CBC/UA Results: generalized anemia and low red cell indices, mild hypoproteinemia, low AST, normal GI panel Current Medications Vit B Complex injection - 1.5mL SQ 1x weekly. Famotidine 20mg tabs - PO 1-2x daily for acid reflux symptoms, Piroxicam 10mg caps PO - PRN when he seems a bit stiff or has had a big day of exercise. Gabapentin 100mg caps - PRN

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is mildly to moderately distended with anechoic contents. Apical urinary bladder wall is diffusely thick (0.7 cm thick). Mucosa is hyperechoic and irregular. No masses are observed. There is at least one 0.3 cm calculus exhibiting distal acoustic shadowing present along the gravity dependent inner wall of the lumen of the urinary bladder. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Prostate (neutered) is normal in size, echotexture and echogenicity for a neutered male.

The right kidney is normal in size (5.8 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

The left kidney is normal in size (5.8 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted.

**Adrenal Glands**

The right adrenal gland is normal in size (2.74 cm long x 1.01 cm at the cranial pole and 0.59 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.36 cm long x 0.64 cm at the cranial pole and 0.63 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

The spleen is not visible in these images. However, the area of the spleen was evaluated without apparent pathology.



**PATIENT** *Liver*

Tucker Crozier

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**SPECIES**

Canine

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

**BREED**

Catahoulax

***Gastrointestinal***

**SEX**

Neutered Male

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). 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.

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The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

***Pancreas***

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The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. 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.

**IMAGING PERFORMED BY**

Sara Hansen

**ULTRASONOGRAPHIC FINDINGS**

**HOSPITAL NAME**

West Hills AH

- Chronic Cystitis – Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the location and diffuse nature of the changes.
- Urinary bladder cystic calculi
- Non-obstructive dystrophic mineralization bilaterally in the kidneys
- Spleen was not visualized in these images

**REFERRING VET**

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**INVOICE**

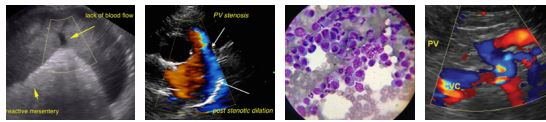
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If not already evaluated, a urinalysis and urine culture are recommended due to the urinary bladder changes and the presence of a bladder stone. If the gastrointestinal panel that was submitted including a TLI, and that was normal, then EPI has been ruled out. If it did not, then a full gastrointestinal panel including a TLI, PLI, folate and cobalamin to Texas A&M GI laboratory is recommended to rule out exocrine pancreatic insufficiency given the pale, foul-smelling stool reported and the concurrent anemia. In the meantime, additional empirical therapies for the occasional soft stool could include a



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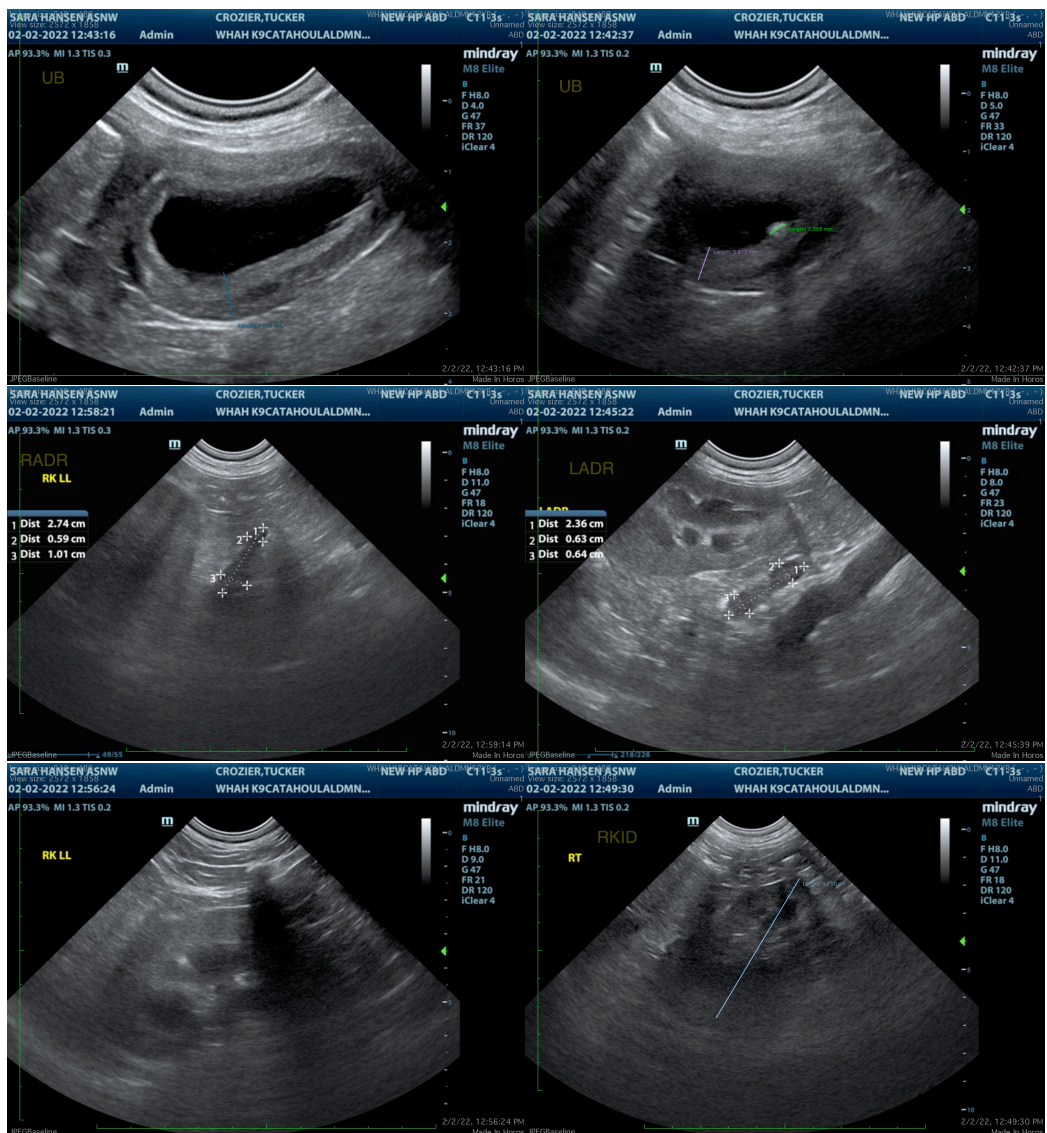
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daily probiotic as well as potentially a diet change using a trial and error system of diets to find one that is appropriate, possibly beginning with a higher fiber diet, and if that doesn't help, transitioning to a novel or hydrolyzed protein diet, etc.

Given the anemia and hypoproteinemia, there is some concern for blood loss somewhere, and without apparent blood loss, a concern is a slow chronic gastrointestinal bleed. Therefore, recommendations include discontinuation of the Piroxicam and increasing gastroprotectants in the form of Omeprazole and potentially adding Sucralfate with monitoring of the anemia for improvement versus progression.

Other recommendations for the anemia include testing for infectious disease, specifically tick borne infectious disease, if a blood loss cannot be located, and exocrine pancreatic insufficiency is ruled out. Finally, empirical deworming with at least a 5 day course of Panacur is recommended.





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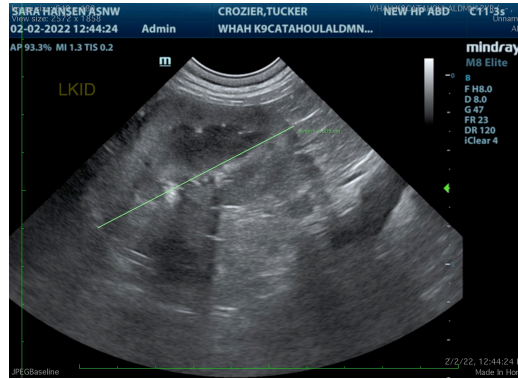
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
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