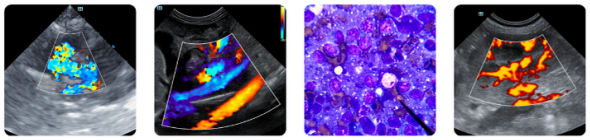


PATIENT

Witten Smith

SPECIES

Canine

BREED

Shih Tzu

SEX

MN

AGE

10 years

WEIGHT

22 lbs

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Pamela Harrigan, RDCS, Certified Veterinary Sonographer

HOSPITAL NAME

Glastonbury Animal Hospital

REFERRING VET

Dr. Kaela Schraer

INVOICE

11118

DATE

1/14/2026

PRESENTING CLINICAL SIGNS

Chronic, intermittent diarrhea that is somewhat refractory to treatment. During recent episode, owner brought patient to PM where they noted hyperclcemia including increased iCa. Malignancy panel was performed and PTH and PTHrP were normal. On Proviable forte.

Abnormal PE/Chem/CBC/UA Results: Mon 0.18, PLT 22, PCT 0,024, iCa 1.44, Ca 14.2, TP >11.0

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The 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.

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

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. Left kidney measures 4.54 cm, and the right kidney measures 4.69 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.45 cm at cranial pole and 0.4 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.57 cm at cranial pole and 0.55 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size (1.8 cm thick at the hilus) with normal smooth margins. Parenchyma is normal in echogenicity with a diffusely coarse/heterogenous echotexture. No discrete sizable focal nodules or masses are observed. Splenic vasculature appears normal.

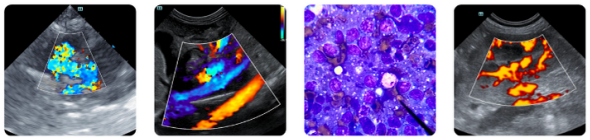
Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mildly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. 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.



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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.

There's an area, of what I believe is the proximal or early descending colon, that's mildly thick measuring 0.46 cm thick with normal intact layering. The lumen is mildly distended with soft stool.

Pancreas

The pancreas that is observed 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 visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

PRIMARY FINDINGS

- Coarse splenomegaly – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.

- Mildly heterogenous liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Mild 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.

- Mildly thick proximal descending colon trends in appearance toward benign as could be seen with parasitic, infectious, dietary related, other benign inflammatory disease, although infiltrative neoplasia, while thought less likely, can't be definitively ruled out without tissue sampling.

SECONDARY FINDINGS

- Age related kidney changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given patient's diarrhea history, further gastrointestinal workup recommendations include:

- A routine fecal/giardia exam.

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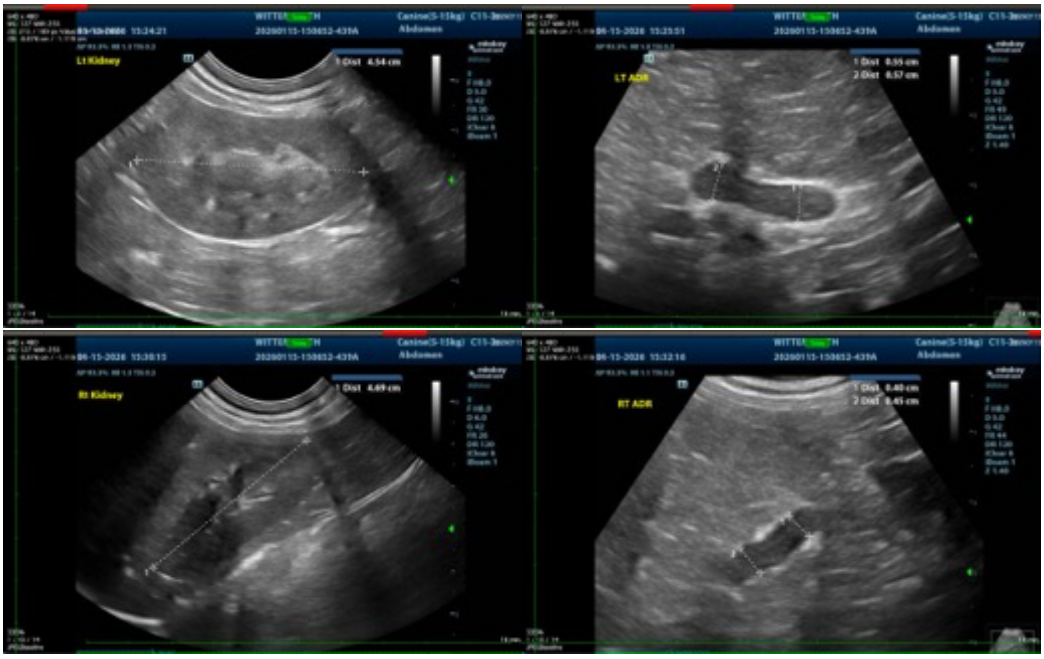
- A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.
- A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease. Contact lab for recommendations on how long to discontinue antibiotics (if indicated) prior to obtaining a stool sample for submission.

Given the hypercalcemia, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

If a diagnosis is not obtained, further evaluation of possible neoplasia is recommended including Inside the abdomen such as with fine needle aspirates of the spleen and/or liver is patient's coagulation status is appropriate and investigation outside the abdomen such as Three View thoracic radiographs, etc. as not all hypercalcemia of malignancy causes an increased PTHrP. Along the same note, further recommendations regarding the reportedly normal PTH are dependent on the exact level. As with significant hypercalcemia even a normal PTH can be abnormal and suggest hyperparathyroidism.

While continuing workup, supportive/symptomatic medical management of clinical signs is recommended, including a probiotic (such as visbiome or proviable), empirical deworming with a 5-day course of Panacur and, if tolerated, a transition in diet, based on trial-and-error response, beginning possibly with a gastrointestinal biome diet vs a hydrolyzed protein diet vs other. Some patients respond to one brand/version of a hydrolyzed protein diet better than another brand, so several brand attempts may be required. Fecal microbe transplant therapy could be considered.



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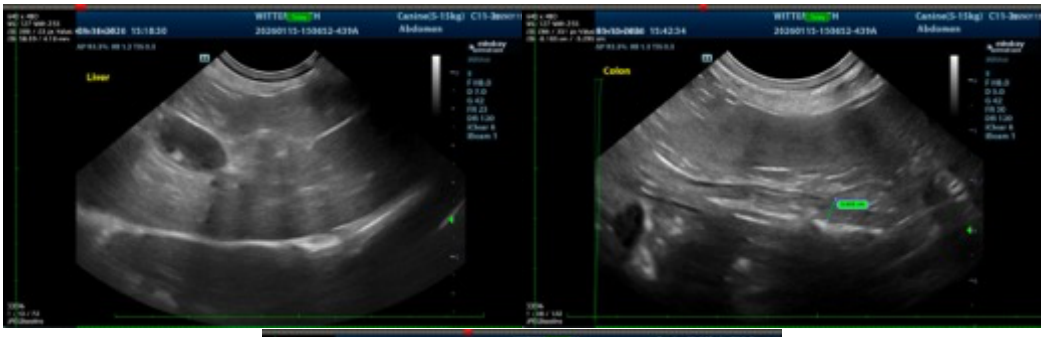

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
info@sonopath.com