

**DATE PRESENTING CLINICAL SIGNS**

2/27/23

PATIENT

Lulu Shaqir

History: 1/12/23-2 month history of diarrhea and weight loss. Pet is hungry and eating well. cbc-WBC 23,000 with neutrophilia (19,000). Chem- BUN low (5mg/dl) , Globulins elevated (6.1 g/dl), otherwise wnl. UA- USG 1.040, sediment unremarkable. GI panel- B12 low (216) , folate and TLI normal (TLI 10.6) fecal- negative. Pet was started on Purina EN, Visbiome probiotic, Vitamin B injections and dewormed with panacur for 5 days.

SPECIES

Canine

Current Medications: Panacur at 50mg/kg once daily for 5 days and metronidazole at 15mg/kg for 7 days last month, Visbiome (currently on) , Vitamin B 12 injections (currently on week 4) , purina EN (currently on) Date of Previous IntraPet Ultrasound: No previous.

BREED

Husky

Sedation: Torbugesic/Midazolam IV.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

SEX

Spayed Female

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.

AGE

10/2/16

Left kidney is normal is size (6.73 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, mineral or infarcts observed.

WEIGHT

42 Pounds

Right kidney is normal is size (6.17 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, mineral or infarcts observed.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

Left adrenal gland is normal in size (2.46 cm long x 0.37 cm at cranial pole and 0.49 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Banfield Colombia

Right adrenal gland is normal in size (2.39 cm long x 0.82 cm at cranial pole and 0.62 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Scherping

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal. In addition to the diffuse changes, there is a 1.1 cm x 0.5 cm hypo- to anechoic non-capsule-disrupting nodule in the spleen.

INVOICE

21310

Liver

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.

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.

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 free fluid.

The mesenteric lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

Other

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

ULTRASONOGRAPHIC FINDINGS

- Splenic micronodular hyperplasia with hypo- to anechoic splenic nodule – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out. The 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.
- Reactive mesenteric lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's reported clinical signs and laboratory changes, as well as gastrointestinal malabsorption panel results, etc., infiltrative bowel disease, as the primary cause of the clinical signs, is likely.

Additionally, a fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease.

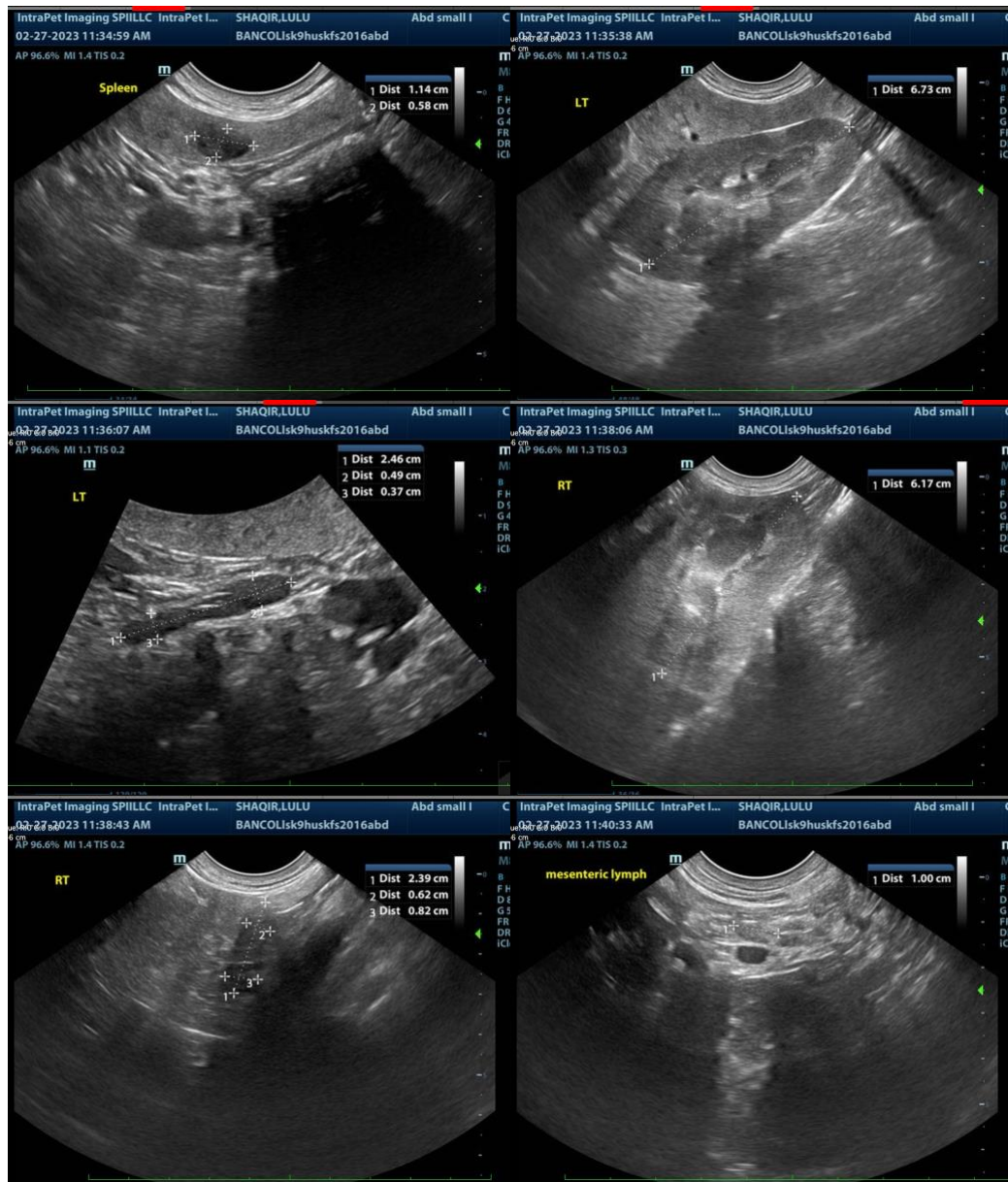
Thorough empirical medical management is already reportedly in place, with the only suggested changes, if clinical signs are persisting, being to potentially transition to a hydrolyzed protein diet vs the gastrointestinal diet, if tolerated. Some patients respond better to one brand of hydrolyzed protein diet vs

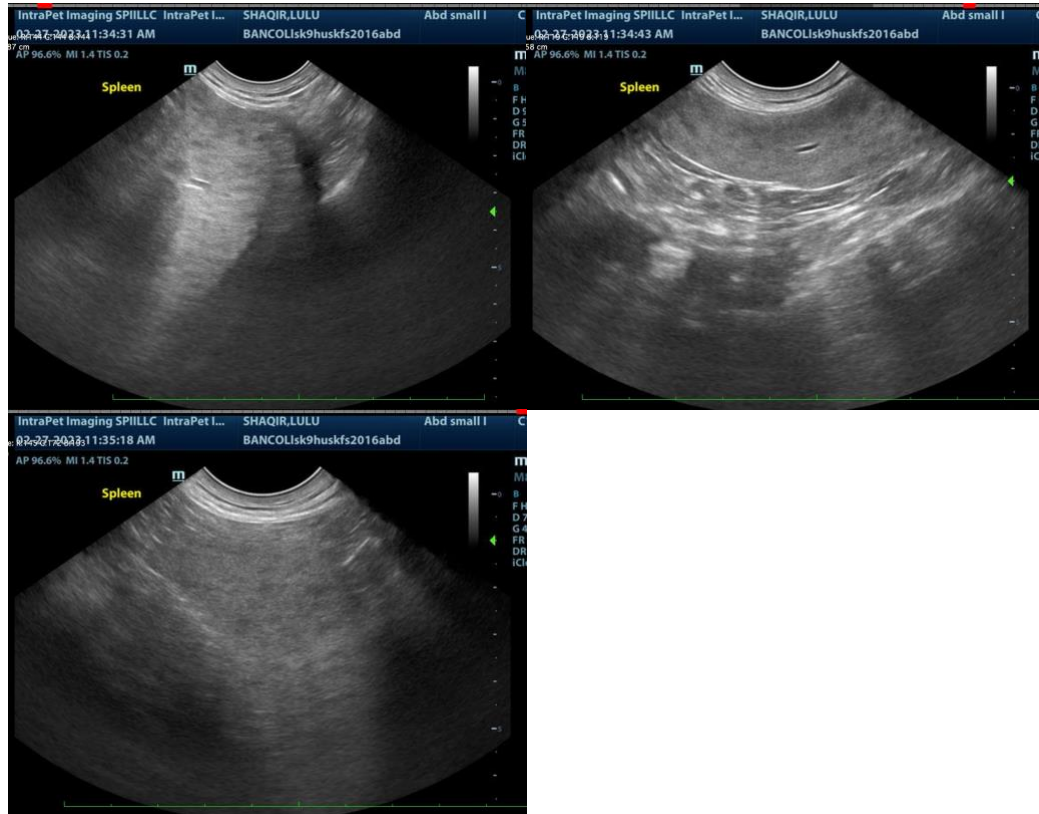
another, so, sometimes multiple trials are recommended.

If that doesn't help improve clinical signs, ultimately, biopsies of the gastrointestinal tract may be necessary to definitively diagnose, and therefore, manage the suspected infiltrative process.

Prior to biopsies, however, especially given this patients reported hyperglobulinemia, which is atypical with benign inflammatory bowel disease, a fine needle aspirate of the spleen is recommended if patients coagulation status is appropriate.

Additionally, serum electrophoresis could be considered to help further classify the hyperglobulinemia, as infectious vs neoplastic, etc.





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