

**PATIENT**

Shenzi Petosky

SPECIES

Canine

BREED

Border Collie X

SEX

Spayed Female

AGE

13 Years

WEIGHT

56.8 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Amy Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Dr. Richards

INVOICE

46040

DATE

3/21/23

PRESENTING CLINICAL SIGNS

New patient with limited prior history. Presented for acute hemorrhagic diarrhea x 24 hours, dull mentation. Current caretaker has had patient for 3 weeks. Difficulty getting P to eat readily- will not eat kibble, O felt that canned food worsened/contributed to soft stools. Now current feeding a home cooked diet and stools had been improving slightly until bloody, liquid diarrhea on 3/20/23. No vomiting noted, no known FB ingestion (although metallic/radio-opaque chain seen on rads). Gradual weight loss over the past 2-3 years, but worse recently (down 10lbs in past 2 months). Marked muscle wasting in hind end. Several SQ masses present, but concern for large, moderately firm masses around lateral neck/submandibular region on both sides. Some wheezing heard when P is laying in certain positions, but no coughing appreciated.

Abnormal PE/Chem/CBC/UA Results: Dull, depressed mentation during exam. Able to walk, but overall, appears weak. Mild abdominal discomfort noted. No fecal material on rectal exam, just blood clots, no palpable mass. Perineum was clipped/cleaned due to matting from recent diarrhea. Patient has several large SQ masses that are suspected lipomas from prior vet (including large mass over left thorax). Concerned with large, somewhat nodular, moderately firm masses around lateral neck/submandibular region on both sides. FNAs pending. No generalized lymphadenopathy appreciated. No coughing, but audible wheezing when laying down. No heart murmur appreciated, but mild tachycardia appreciated compared to dull mentation. See attached lab work and rads. Mild anemia, leukocytosis with lymphopenia, hyperglobulinemia, mild hyperphosphatemia, mildly elevated ALP/AST. Marked bacteriuria with mild pyuria on UA. Neg 4dx. No fecal material retrieved; cytology just revealed blood clots. Radio-opaque chain found in SI on rads, no known ingestion of FB. Few nodules noted on thoracic rads.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately 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.

The right kidney is normal in size (7.39 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 mineral or infarcts observed. Mild pyelectasia is noted measuring 0.26 cm in the transverse view.

The left kidney is normal in size (7.31 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.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Some parenchymal heterogeneity is present without concerning capsular distortion. Visible surrounding vasculature appears normal. The right adrenal gland measures 1.16 cm at the cranial pole and 0.62 cm at the caudal pole. The left adrenal gland measures 1.45 cm at the cranial pole and 0.82 cm at the caudal pole.

Spleen

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

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Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. In the mid to caudal liver, there is an approximately 3.0 cm in diameter, more discrete, slightly more heterogeneous, isoechoic nodule/mass. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild 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 mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Hyperechoic mucosal fogging or speckling is noted. Small intestinal motility appears adequate (1-3 contractions per min). The lumen is empty with no evidence of obstruction or foreign material.

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

Pancreas

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 free peritoneal effusion noted in these images.

The medial iliac 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.

PRIMARY FINDINGS

- **Honeycomb Spleen** – This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.
- **Heterogenous Liver with a more discrete liver mass** – 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. The more discrete liver mass may represent a more discrete marked nodular hyperplasia or benign hepatoma/adenoma. However, given the concurrent pathology, infiltrative neoplasia such as round cell neoplasia versus primary hepatic neoplasia or even metastatic disease cannot be ruled out.
- **Mucosal speckling** – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.
- **Reactive medial iliac lymph nodes** – infiltrative neoplastic disease cannot be ruled out but is considered less likely.

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SECONDARY FINDINGS

- **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.
- **Bilateral adrenomegaly** - consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Mild right kidney pyelectasia** - Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

If the reportedly pending fine needle aspirate of the submandibular masses does not reveal a diagnosis of a diffuse disease that may be affecting the spleen, GI tract, etc. such as round cell neoplasia, then a fine a fine needle aspirate of the spleen is recommended if patient's coagulation status is appropriate.

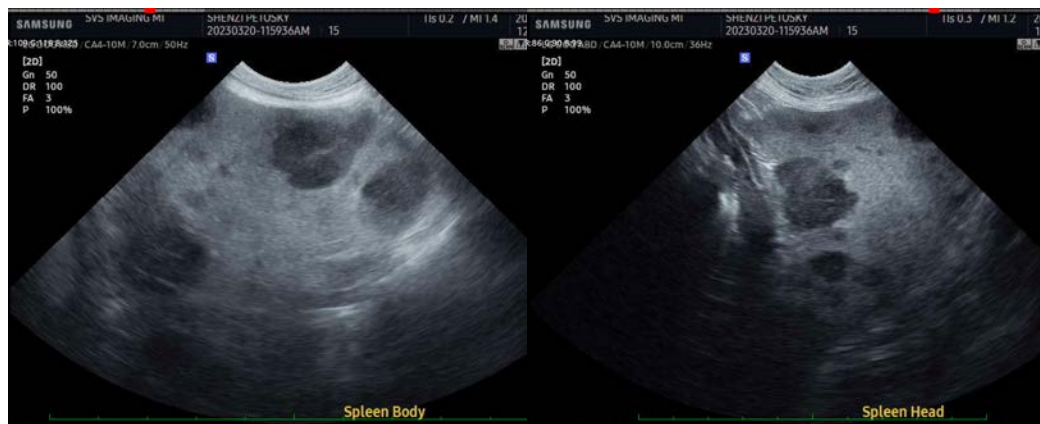
Additionally, fine needle aspirate of the liver mass could be considered.

Given the reported physical exam findings as well as the splenic changes, etc., infiltrative neoplasia is considered also the likely cause of this patient's hemorrhagic diarrhea. Having said that, further evaluation for parasitic, infectious, protozoal diseases as well as gastrointestinal function could be considered with a fecal enteropathogen PCR panel to Texas A&M GI Laboratory.

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.

In the meantime, while awaiting results, in addition to supportive/symptomatic medical management of clinical signs with antiemetics, gastroprotectants including sucralfate, a probiotic such as Visbiome or Provable, a Tylosin trial, empirical deworming with a 5-day course of Panacur is recommended.

Additionally, given the reported urinalysis results, a urine culture should be considered.



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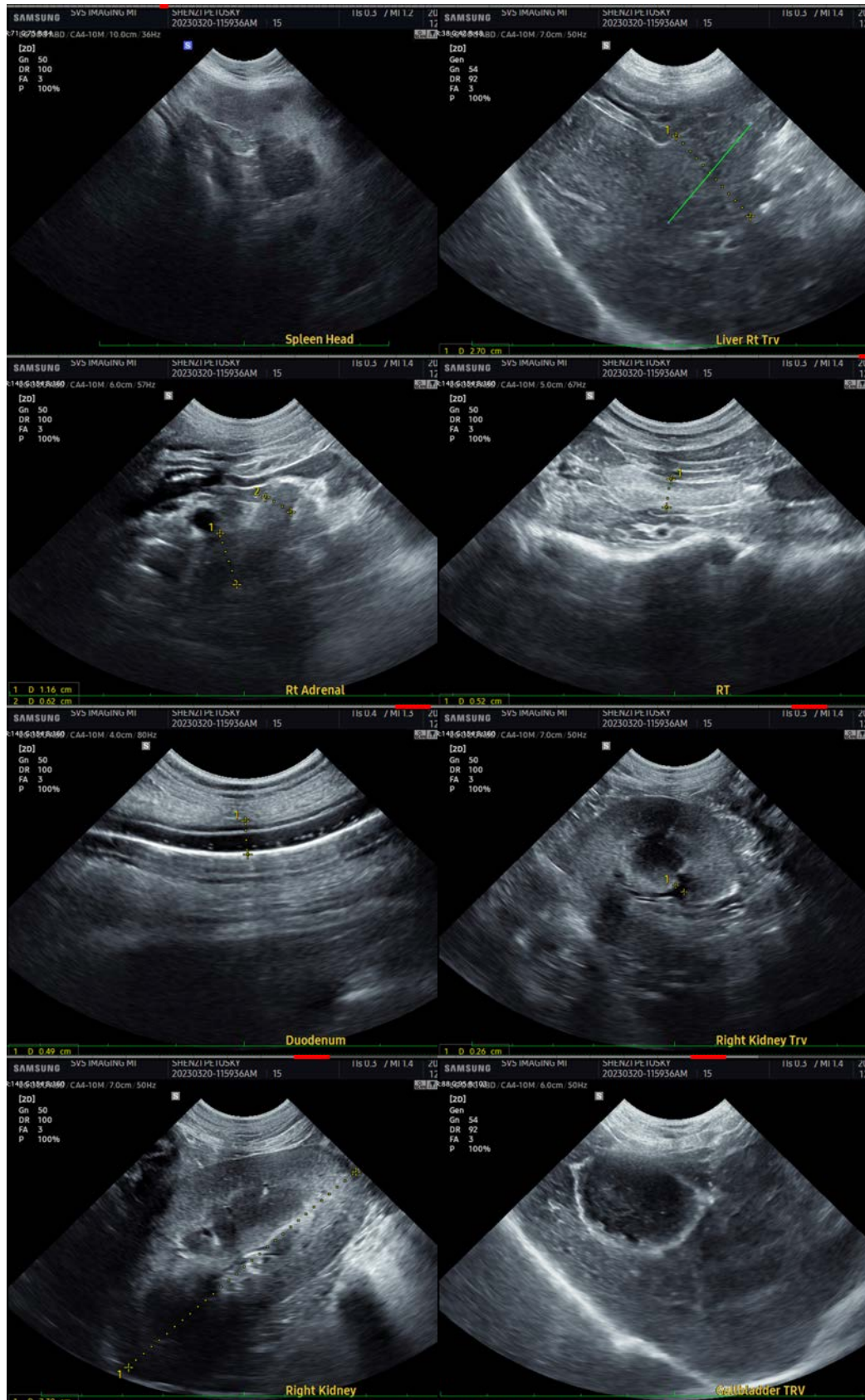
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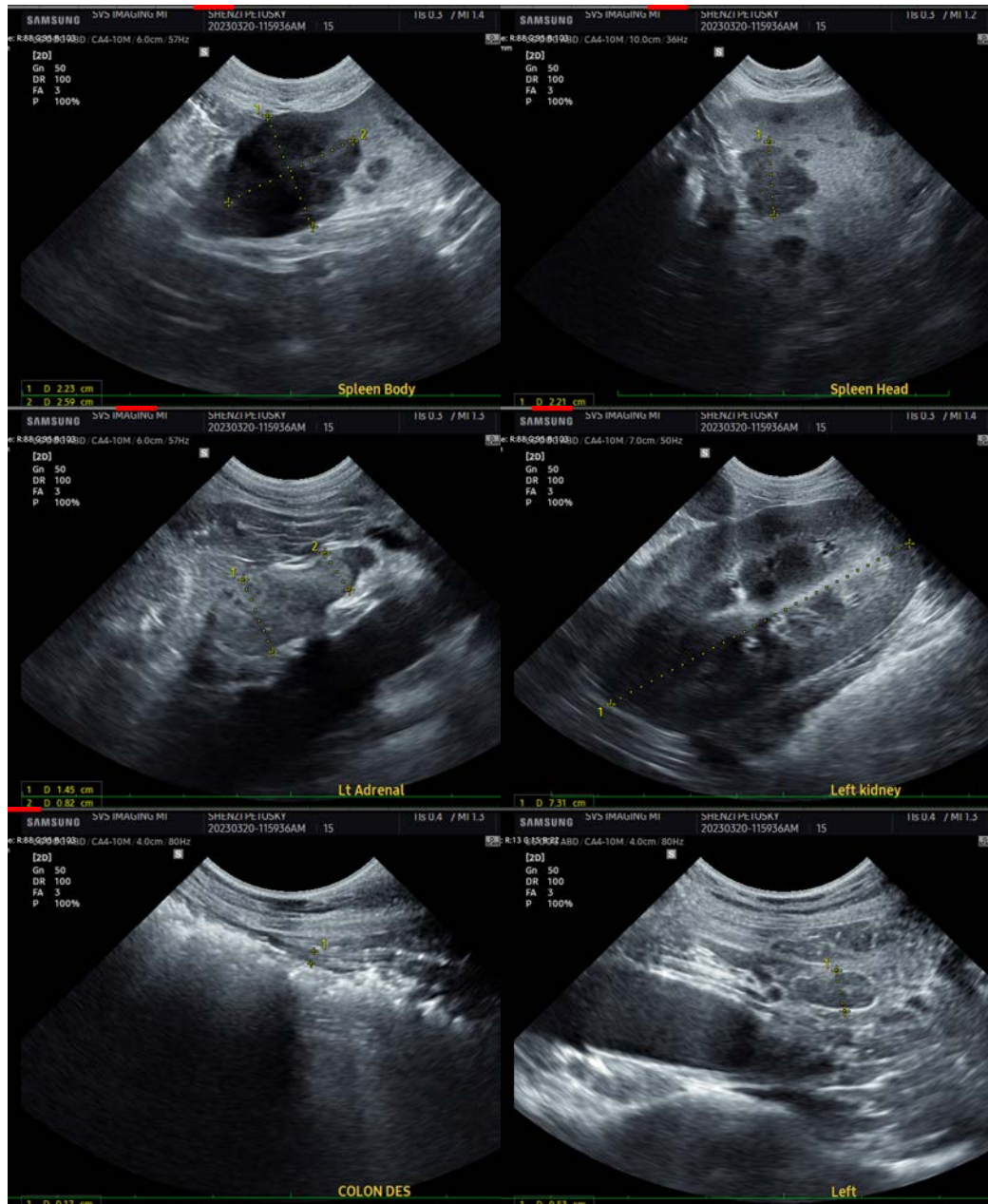
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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