

**DATE PRESENTING CLINICAL SIGNS**

9/29/22 Chronic diarrhea; Flagyl and Amoxi didn't help- tried increased Flagyl dose.

PATIENT

Oliver Giannakis

Current Medications: Panacur SID x3 days, Flagyl 250mg 1 AM, ½ PM, Baytril 20mg BID x7 days, Drontal 2.5mg- All started 9/9/22.
Lab Results: See attached.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

BREED

Miniature Schnauzer

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. There is a long string of hyperechoic shadowing sandy debris/stones in the dependent portion of the urinary bladder, extending into the proximal urethra to the left of the prostatic urethra.

SEX

Neutered Male

The prostate is normal in size (1.0 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

AGE

9/9/12

WEIGHT

23.6 Pounds

The left kidney has a normal shape and size (5.35 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

The right kidney has a normal shape and size (5.56 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

Adrenal Glands

The left adrenal gland is normal in size measuring 0.62 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

AMC of Dulaney Valley

The right adrenal gland is normal in size measuring 0.66 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

REFERRING VET

Dr. Chrest

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

INVOICE

41769

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is subjectively thickened. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.51 cm. Jejunum wall measures 0.44 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. More distal sections of colon appear slightly thickened, measuring 0.28 cm. There is a section of colon surrounded by hyperechoic mesentery with a scant amount of free fluid and a hyperechoic focal area of tissue measuring 1.2 cm x 0.87 cm, most consistent with inflamed fat.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

There is scant free abdominal fluid surrounding the distal colon. There is no lymphadenopathy noted. The omentum is hyperechoic around the distal colon.

ULTRASONOGRAPHIC FINDINGS

- Dependent sandy debris within the urinary bladder and proximal urethra – Recommend urinalysis and culture.
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Subjectively thickened small intestine – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).
- Mildly thickened colon with surrounding inflammation – Findings are most consistent with inflammation, infectious, less likely neoplasia.
- Hyperechoic focal area of tissue adjacent to the colon – Findings are most consistent with inflamed fatty tissue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

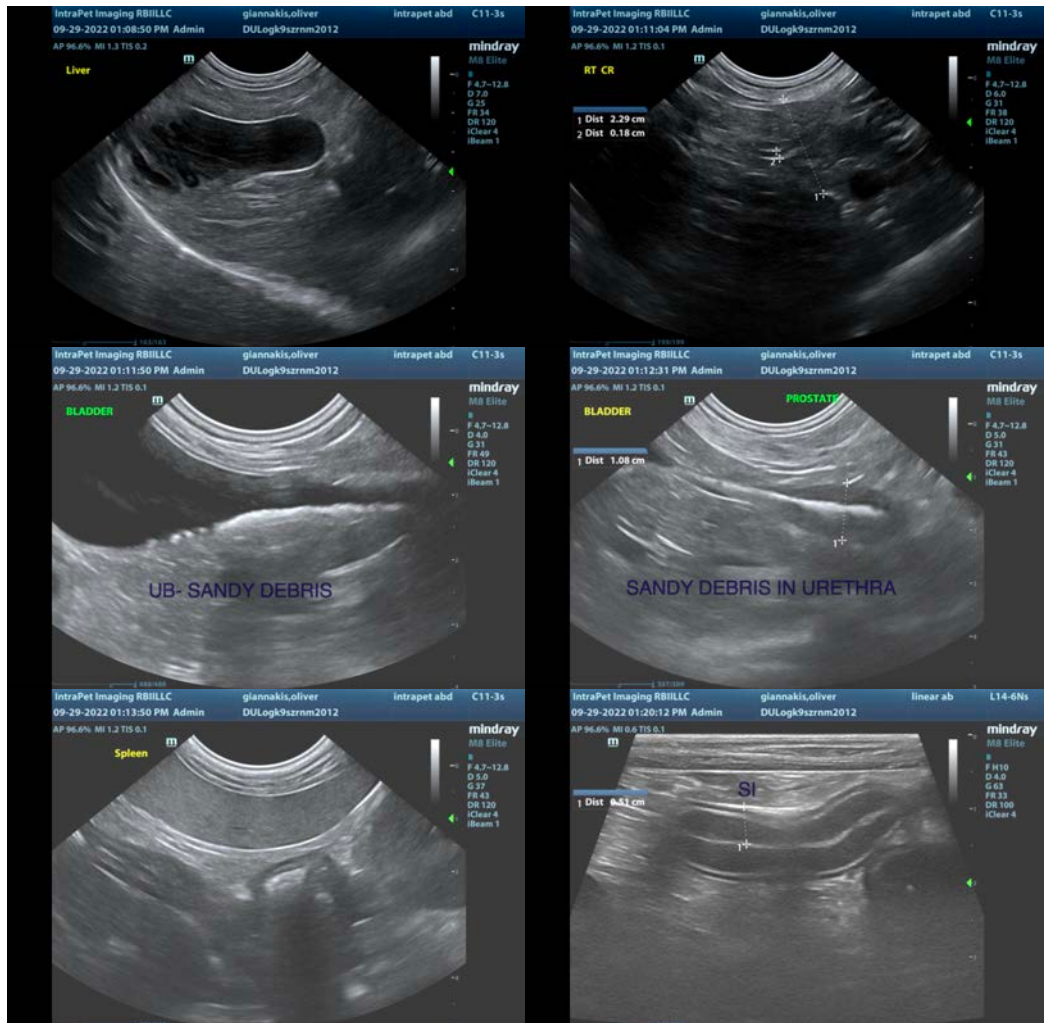
There is a large amount of sandy debris in the dependent portion of the urinary bladder and the proximal urethra. Recommend a urinalysis and culture and continued monitoring.

The liver is large and heterogeneous. With normal liver enzyme elevations, the significance of this is uncertain.

The distal colon appears somewhat thickened and inflamed. This is most consistent with colitis. Additionally, there is a focal area of inflammation and abnormal tissue, possibly consistent with abnormal fat. Recommend continued monitoring. If this lesion persists or worsens, you could consider a fine needle aspirate.

Possible differentials for the chronic diarrhea include food allergy/dietary intolerance, dysbiosis, GI parasitism (you have empirically dewormed), IBD, less likely intestinal neoplasia, exocrine pancreatic insufficiency, etc.

- Recommend a novel protein/hydrolyzed protein prescription diet.
- Recommend chronic probiotic therapy.
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Consider fiber supplementation (this can help some patients but make others worse).
- If symptoms persist, recommend upper and lower GI endoscopy to obtain biopsies.





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.

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