

PATIENT	PRESENTING CLINICAL SIGNS
Buttercup Kendall	History: NSF on physical exam Vomiting and inappetence for 6 days Bloodwork normal Current Medications: Zonisamide, Cerenia
SPECIES	
Canine	
BREED	
Pomeranian	
SEX	
Female Spayed	
AGE	
15 years	
WEIGHT	
9.6 lbs	
INTERPRETED BY	
Beth Johnson, DVM DACVIM	
IMAGING PERFORMED BY	
Jenna Walsh, CVT	
HOSPITAL NAME	
The Ark VC	
REFERRING VET	
Dr Hillberg	
INVOICE	
13645	
DATE	
7.10.23	

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Kidneys are overall normal in size (left kidney 3.73 cm) (right kidney 4.03 cm) 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.

Adrenal Glands

Left adrenal gland is normal in size (0.47 cm at cranial pole / 0.69 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.59 cm at cranial pole / 0.60 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

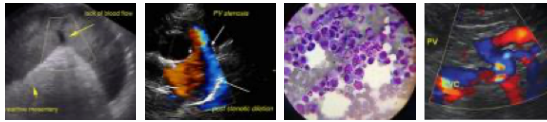
Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal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

Gallbladder is 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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible 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. Additionally, there are some loops of small bowel that contain some of the non-shadowing mineral sand/debris luminal contents as described in the colon. Pyloric outflow tract appears patent.



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The visible colon is normal in wall thickness and layering. The colon is diffusely moderately distended with fluid as well echogenic, granular sand/mineral-appearing debris.

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 peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Gastroenteritis – Consistent with irritation secondary to dietary indiscretion or intolerance, infection (bacterial, viral, other), parasitic or protozoal disease, toxin, other metabolic disease such as pancreatitis, other.
- Given the granular, almost mineral appearance of the luminal contents in some of the small bowel and the colon, it appears as if the contents (potentially brought on by dietary indiscretion of dirt, litter, sand, other) are passing and making their way into the colon.
- Moderate 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.
- Urinary bladder debris

Secondary Findings

- Age-related kidney changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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

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.

Additionally, if not recently evaluated, a fecal exam is recommended, as is potentially pending above results, a fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease.

In the meantime, supportive/medical management of gastroenteritis, possible dietary indiscretion, etc. is recommended in the form of fluid therapy, antiemetics, gastric protectants and appetite stimulants,



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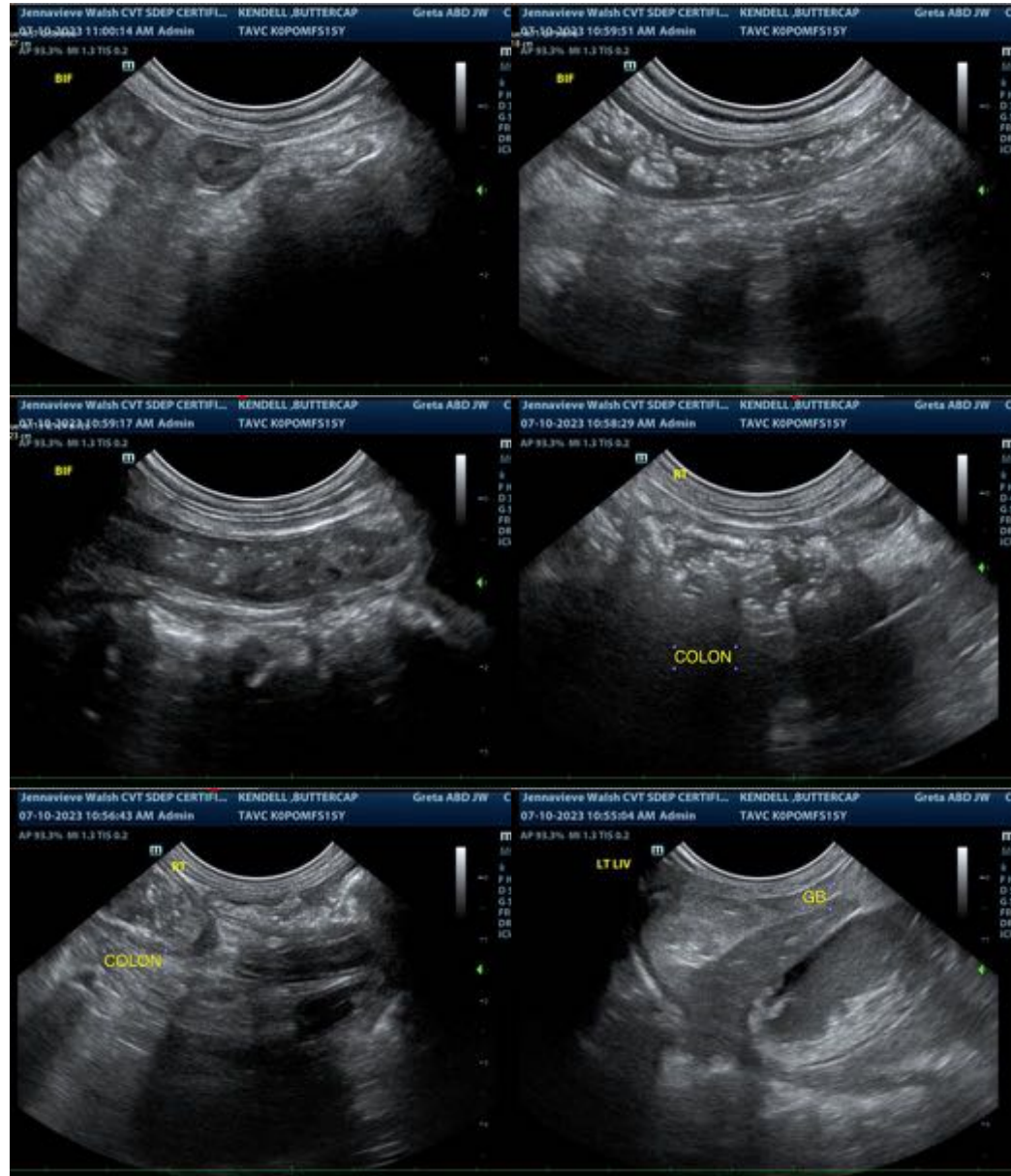
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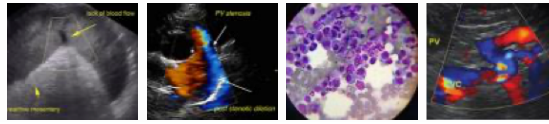
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and a bland, easy-to-digest diet short-term. Additionally, empirical deworming with a 5-day course of Panacur can be considered.





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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
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