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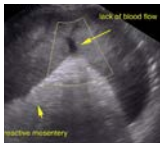
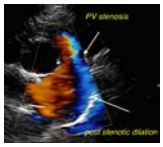
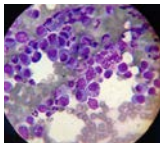
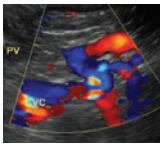

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1-800-838-4268 info@sonopath.com

PATIENT
Sadie Zell

SPECIES
Canine

BREED
Smooth-Coat Collie

SEX
Spayed Female

AGE
9 Years

WEIGHT
83.2 Pounds

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Susan Lincoski

HOSPITAL NAME
University Drive VH

REFERRING VET
Dr. Susan Lincoski

INVOICE
41552

DATE
9/22/22

PRESENTING CLINICAL SIGNS

GI issues: Since feb 2022, dog has started with cyclic GI issues. Owner thinks possibly from dog ingesting so much of her fur/scabs when licking skin? Starts with not wanting to eat / picky with dry kibble (on z/d), then dog will vomit, have loud gut gurgles, and stools are a constant "mush". Omeprazole helps vomit to be food only, and not bile. Owner switched food recently and she's eating more, no longer vomiting, normal gut - only soft stools.

Abnormal PE/Chem/CBC/UA Results: ALKP 869, UA pH=9 and trace protein, 5 WBC/HPF only. Severe spondylitis seen radiographically. Otherwise all WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.55 cm). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

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 or infarcts observed. Non-obstructive linear multifocal hyperechoic diverticular foci with acoustic shadowing are noted in both kidneys. The left kidney measures 5.73 cm. The right kidney measured 6.89 cm.

Adrenal Glands

The right adrenal gland is normal in size (1.0 cm long x 0.62 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.61 cm at the cranial pole 0.53 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with a mildly swollen but smooth capsule. Parenchyma is normal and homogenous in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is 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. A hyperechoic enhanced area is noted around the neck of the gallbladder.

Gastrointestinal

The 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. Pyloric outflow tract appears patent.

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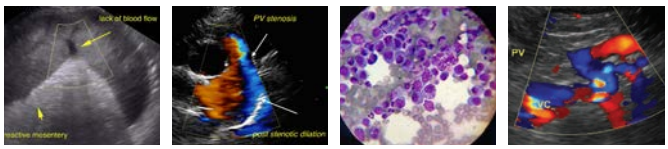

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The visible small intestines are normal in wall thickness and layering. Bowel is diffusely mildly fluid distended without evidence of an obstructive pattern, plication and/or visible foreign material. Small intestinal hyperperistalsis is noted.

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

Pancreas

Pancreas is prominent (enlarged) in size and mildly irregular in shape with a slightly undulating contour. Parenchyma is coarse in echotexture and heterogenous to hypoechoic in echogenicity.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

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.
- **Chronic active pancreatitis -** Some acute on chronic smoldering pancreatitis is unable to be ruled out.
- **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. There is some evidence of possible mild inflammation around the neck of the gallbladder.
- **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.
- **Hypersplenism –** 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.

SECONDARY FINDINGS

- Age related kidney changes
- **Chronic Cystitis -** Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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.

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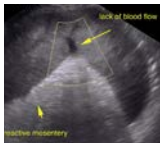
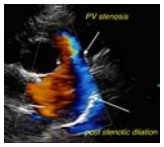
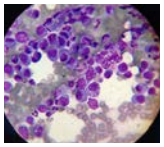
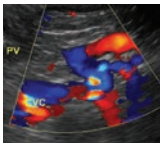

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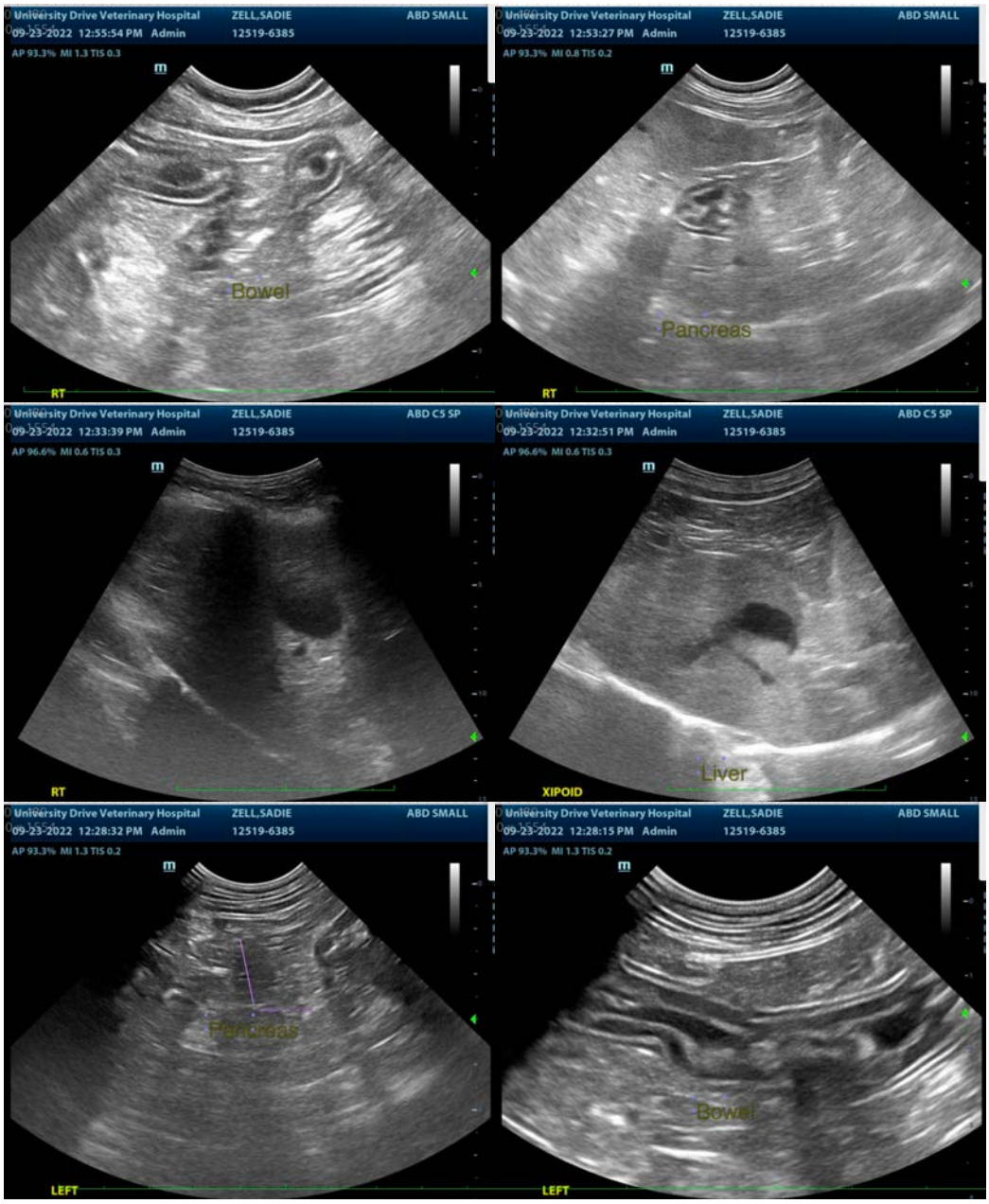
A urine culture is indicated based on urinalysis results and urinary bladder wall changes to rule out an occult UTI.

Therapeutic recommendations include supportive/symptomatic medical management of gastroenteritis +/- mild pancreatitis and cholangitis with antiemetics, gastroprotectants, appetite stimulants (if necessary), pain management as indicated, etc., followed potentially by a transition to a diet other than z/d, which may not be tolerated any longer. A low-fat diet could be tried if tolerated, or transition to a different hydrolyzed diet such as Purine HA or Royal Canin hydrolyzed.



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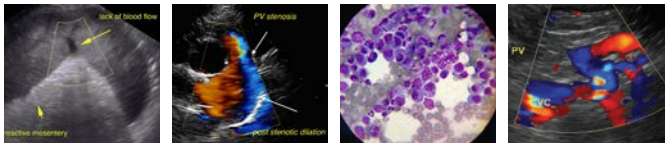

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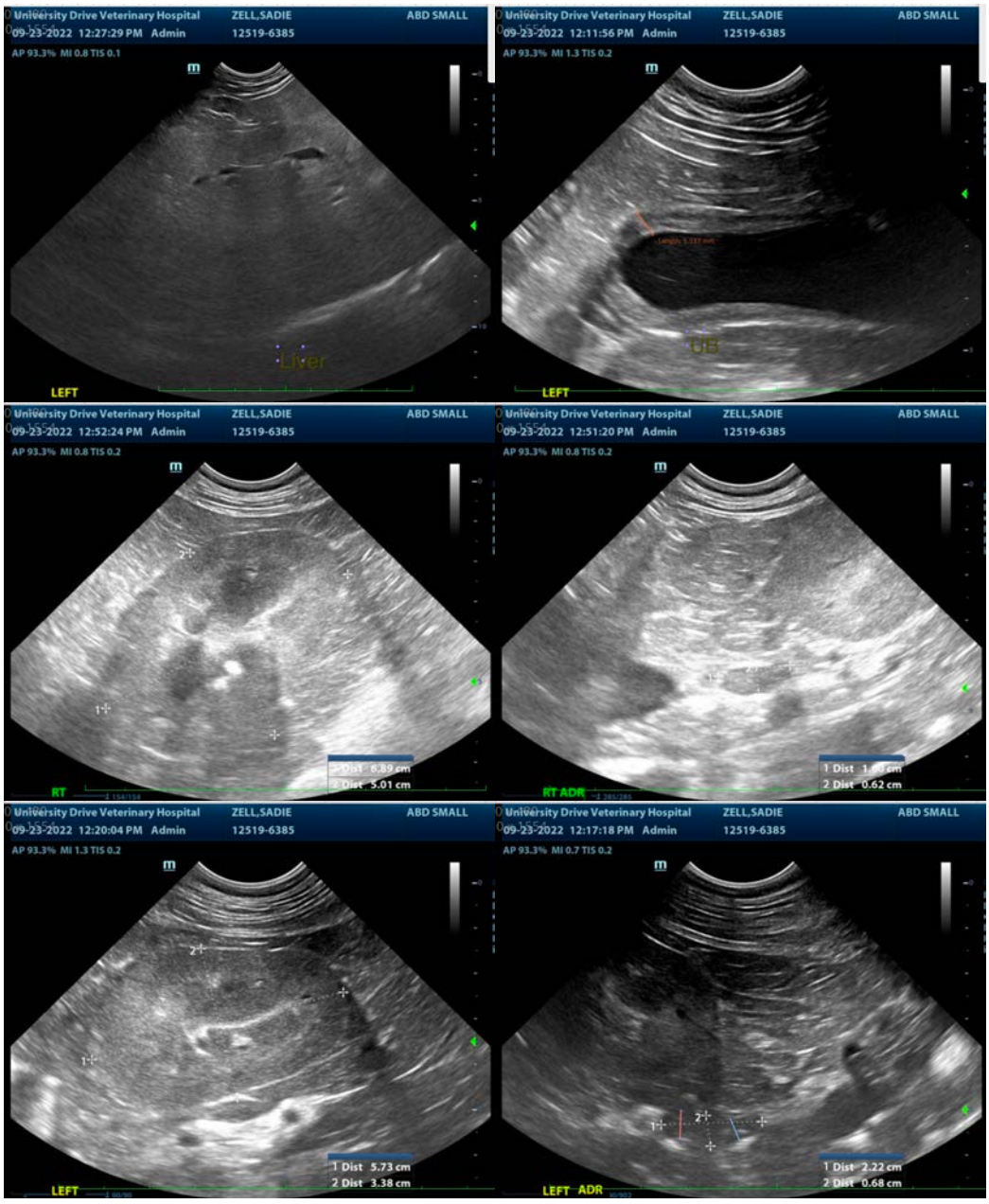

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Beth.Johnson@sonopath.com