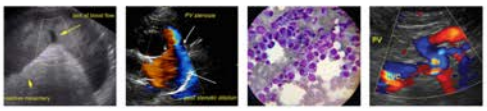


PATIENT

Barlow Mitchell

SPECIES

Canine

BREED

Mixed

SEX

Neutered Male

AGE

12 Years

WEIGHT

26 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Deer Run Vet Serice

REFERRING VET

Dr. Foster Palmer

INVOICE

45552

DATE

2/27/23

PRESENTING CLINICAL SIGNS

Presented for vomiting and weight loss. Refusing regular food since getting sick - will eat rice and boiled chicken. Icteric on exam. BW: ALT 1069, ALP 1353, AST 457, GGT 21, Lipase 468, Spec cPL 577. Tx: Cerenia, Ursodiol, Denamarin. Vomiting has stopped with Cerenia.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was free of pathology.

The area of the aortic trifurcation was free of pathology.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Pinpoint discreet medullary mineralization noted. No pyelectasia. The left kidney measured 5.6 cm. The right kidney measured 5.8 cm.

Adrenal Glands

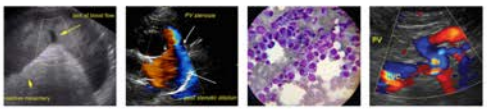
The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm at the cranial pole and 0.60 cm at the caudal pole. The right adrenal gland measured 0.41 cm at the cranial pole and 0.51 cm at the caudal pole.

Spleen

The spleen exhibited generalized parenchymal heterogeneity. Intermittent, non-disruptive, echogenic nodules were present throughout the cranial to caudal parenchyma. Some of the nodules exhibited focal distal acoustic shadowing. The nodules are consistent with benign myelolipomas, possible emerging mineralization, or previous infarcts, and are considered benign. Areas of mild medial capsule asymmetry noted. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver

The liver presented subjective borderline to mild enlargement. Areas of mild capsule asymmetry noted. Generalized non-homogeneous to remodeling parenchyma. Indistinct portal vasculature borders noted. Normal vascularity. No masses or nodules. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. Mild non-dependent particulate to focally hyperechoic sediment present along with congealed, variably echogenic sediment or possible non-obstructive polyps in the area of the gallbladder neck. No evidence of gallbladder or peripheral gallbladder inflammatory or neoplastic criteria. No evidence of gallbladder wall edema. The cystic and common bile ducts were normal.



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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained variably echogenic ingesta exhibiting subtle distal acoustic shadowing. Sonographically, the appearance of the ingesta is most consistent with food, and may indicate post-prandial presentation. Potential for some degree of metabolic or functional gastric hypomotility if documented NPO.

The small intestine presented intact yet generalized prominent wall layering owing to generalized propensity for prominent mucosa, exhibiting subtle increased mucosla echogenicity to mucosal fogging. Minor segmental duodenojejunal non-shadowing ingesta/chyme. No obstructive pattern, loss of intestinal wall layering, or intestinal masses. Duodenum wall measured 0.53 cm. Jejunum wall measured 0.45 cm.

Normal visible colon wall layers were present with semiformed to soft fecal matter.

Pancreas

The parenchyma of the pancreatic base and right pancreatic limb was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

Regional peri intestinal mild hyperechoic omentum and intermittent small pocket of scant peri intestinal free fluid noted. No evidence of significant lymphadenopathy.

PRIMARY FINDINGS

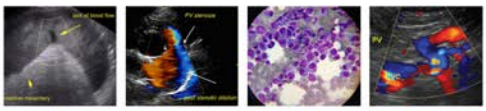
- Heterogeneous spleen with benign nodules
- Chronic hepatopathy pattern with non-homogeneous parenchyma – vacuolar hepatopathy, non-obstructive cholestasis, chronic inflammatory/immune mediated disease, hyperplasia, hematopoiesis, fibrosis, infiltrative neoplasia all potential.
- Non-distended gallbladder with congealed gallbladder debris versus non-obstructive polyps.
- Mild chronic pancreatitis/pancreatic fibrosis pattern
- Gastric ingesta
- Enteropathy exhibiting intact yet prominent wall layering
- Scant intermittent peri intestinal free fluid

SECONDARY FINDINGS

- Chronic renal changes with pinpoint medullary mineral

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The small intestinal presentation may indicate inflammatory disease (i.e., IBD or other inflammatory enteropathy), although the possibility of infiltrative neoplasia, which may present in similar sonographic manner as inflammatory criteria is possible. Primary intestinal disease with concurrent hepatopathy and chronic pancreatitis are all potential contributing factors. A GI panel to include PLI/TLI/Cobalamin/Folate



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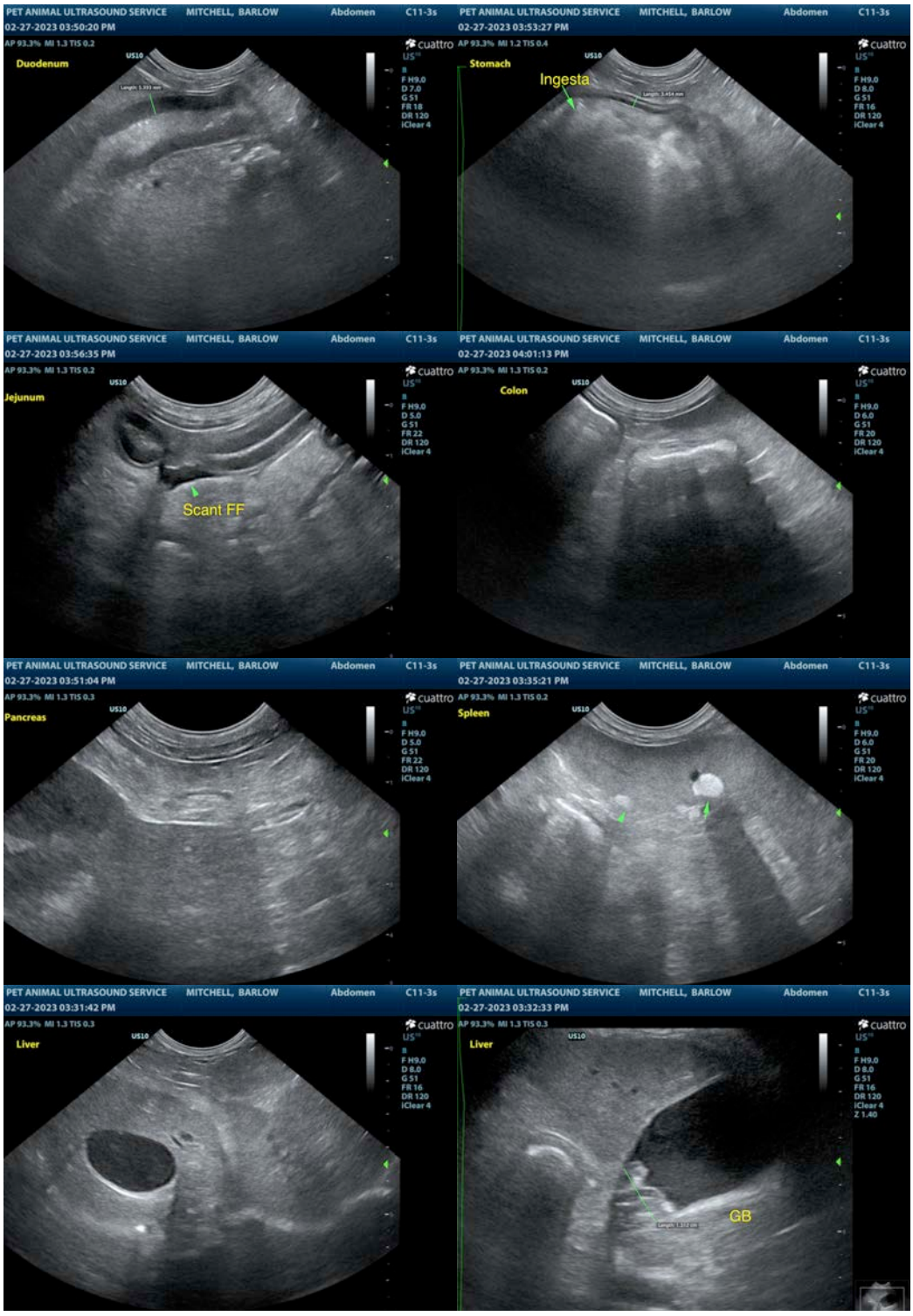
is recommended. No evidence of post-hepatic obstructive criteria. Empirical therapy for IBD, chronic pancreatitis, with as needed gastrointestinal support would be reasonable. Intestinal +/- hepatic biopsy would be required for definitive diagnosis.



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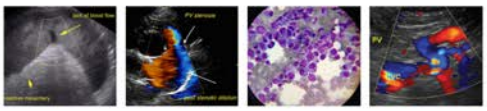

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EDUCATIONAL TELECONSULTATION SERVICES™
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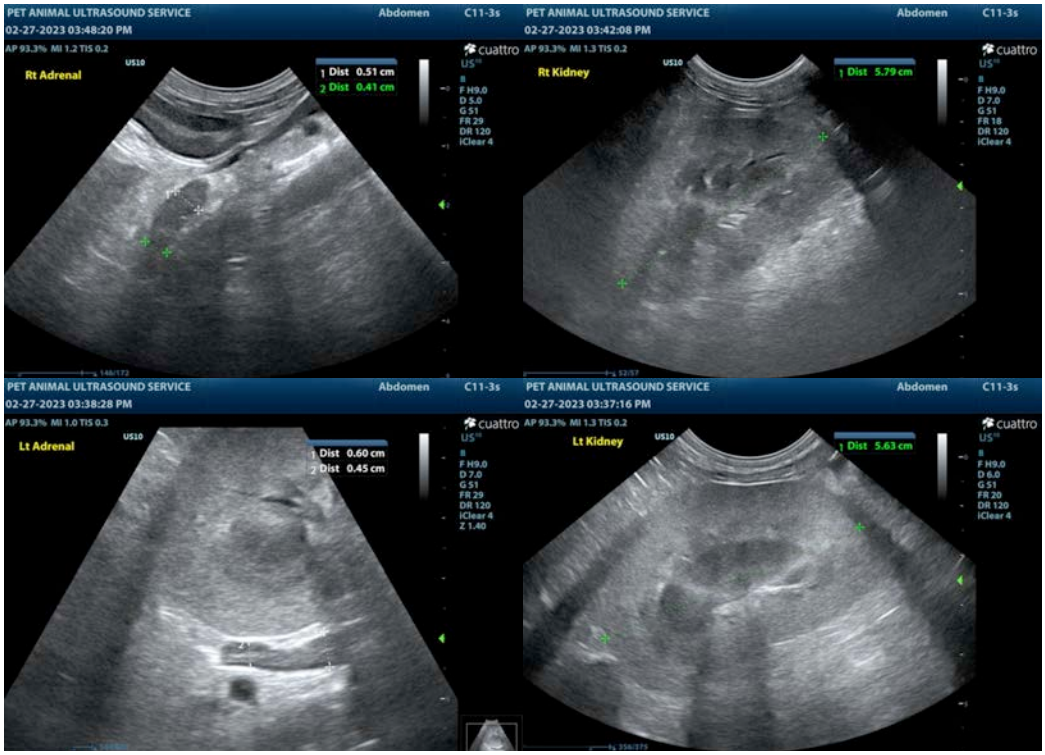

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com