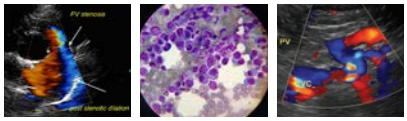
IMAGING PERFORMED BY

IntraPet.com



SonoPath

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DATE

5/3/23

PATIENT

Oreo Bryant

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8/7/04

WEIGHT

11.3 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Cat Hospital at Towson

REFERRING VET

Dr. Martin

INVOICE

47083

PRESENTING CLINICAL SIGNS

Weight loss. Ataxia. Early CKD. Xrays attached. Xrays showing thickened intestines

Current Medications: None.
Radiographs: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Dexdomitor/Torbugesic.
Stat Report: Declined at this time.
Imaging Performed By: Stephanie Warga RDCS, RVT.

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, masses or cystic calculi.

The left kidney has a normal shape and size (3.99 cm) with mild pyelectasia at 0.28 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.61 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.39 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.

The right adrenal gland is normal in size measuring 0.49 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.

Spleen

The spleen is subjectively normal in size (0.86 cm), 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.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There are two small hyperechoic nodules visualized in the liver measuring 0.51 cm and 0.75 cm in diameter.

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 <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.26 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. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and mottled compared to the surrounding slightly hyperechoic mesentery. The mottling is distinct in some regions, creating the appearance of irregular hypoechoic nodules. Particularly, the caudal right limb of the pancreas has a somewhat irregular appearance with surrounding inflammation, but both limbs are prominent and large with a prominent pancreatic duct measuring 0.19 cm.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are prominent, elongated, hypoechoic lymph nodes in the region of the mesenteric root measuring 0.38 cm and 0.25 cm. The omentum is generally of normal echogenicity/slightly increased around the caudal right limb of the pancreas.

ULTRASONOGRAPHIC FINDINGS

- Mild pyelectasia of the left kidney – Pyelectasia of the kidney(s)could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Prominent, large, mottled right and left limb of the pancreas with ill-defined hypoechoic nodules and mild surrounding inflammation – Findings could be consistent with mild active pancreatic inflammation and pancreatic remodeling with lymphoid nodules. An underlying neoplastic process cannot be ruled out.
- Small, hyperechoic nodules visualized in the liver – These nodules could be benign or neoplastic in nature, although the appearance trends towards benign lesions. Recommend continued monitoring.
- Prominent muscularis layer to the small intestine – The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.
- Prominent mesenteric lymph nodes at the root of the mesentery – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed in the kidneys are relatively mild and likely age appropriate. Unfortunately, you can still have significant renal dysfunction with relatively normal appearing kidneys. Recommend a blood pressure, urinalysis and culture due to the pyelectasia observed and the azotemia reported.

The pancreas is prominent and irregular with ill-defined hypoechoic nodules. In some areas, there is hyperechoic mesentery surrounding the irregular pancreas. These changes could be consistent with chronic pancreatic inflammation and remodeling with lymphoid hyperplasia, but there is also the potential for underlying pancreatic neoplasia. Correlate these findings with quantitative fPLI level and recommend treatment for pancreatitis. If symptoms are persisting, consider a fine needle aspirate of the pancreas (right caudal limb).

Additionally, the muscularis layer of the small intestine is somewhat prominent. This can be a normal finding in some older cats but can also be an indicator of underlying GI inflammation. Consider the following steps to further evaluate the bowel changes and pancreatic changes observed:

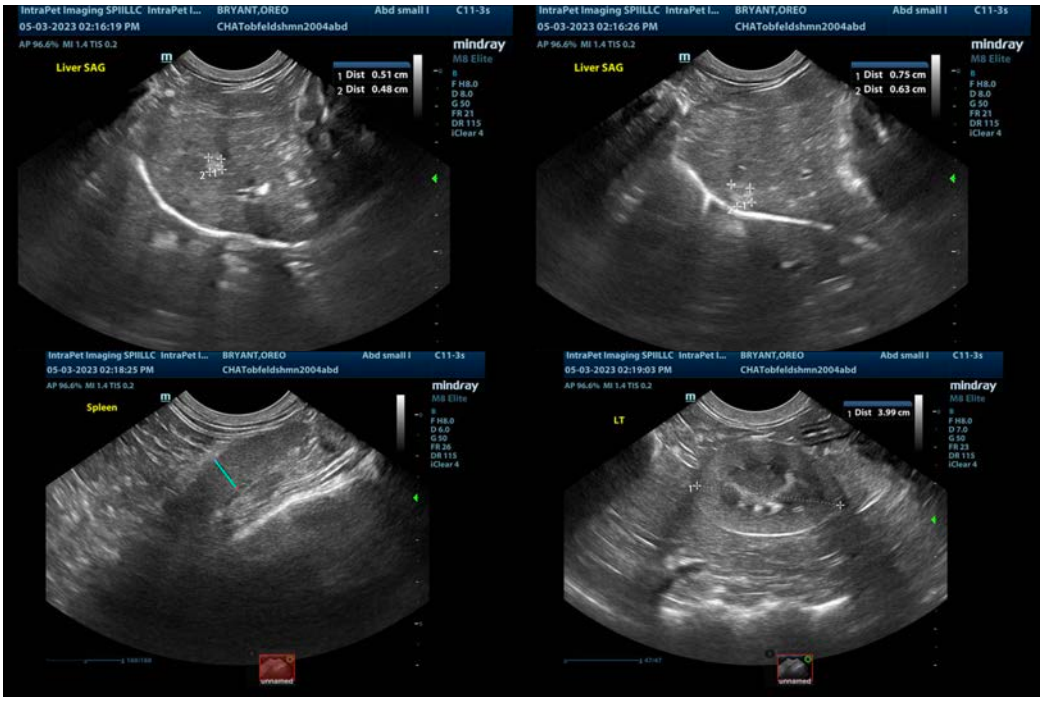
- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Recommend chronic probiotic therapy.

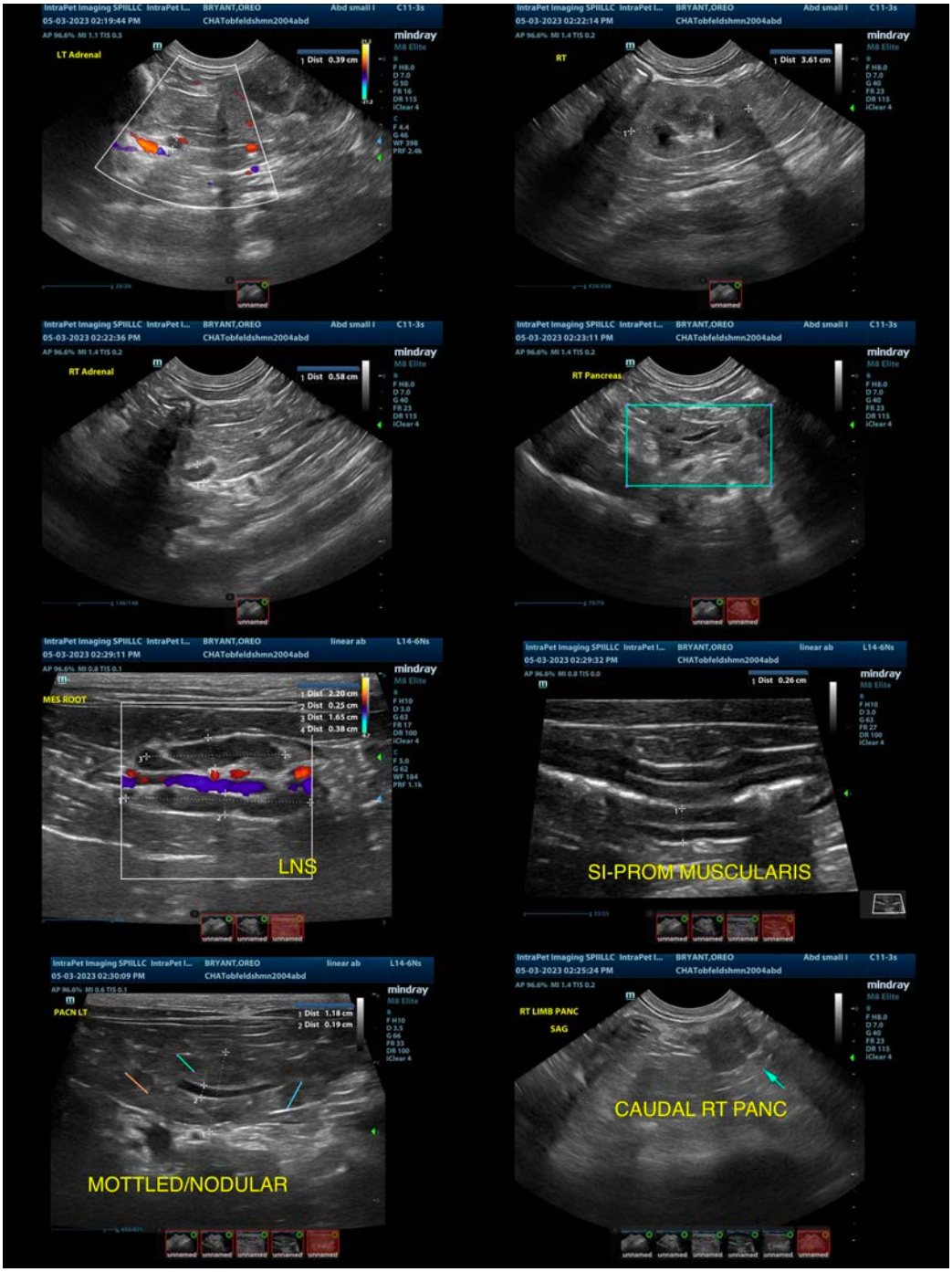
If primary gastrointestinal disease is thought likely based on these test results and there is no response to therapy, then consider obtaining GI biopsies.

The hyperechoic nodules in the liver are of uncertain significance. Recommend continued monitoring with ultrasound.

The lymphadenopathy reported is most consistent with a reactive lymphadenopathy, although continued monitoring is warranted. If the lymph nodes continue to enlarge, consider a fine needle aspirate.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.




LT Adrenal
RT
RT Adrenal
RT Pancreas
MES ROOT
LNS
SI-PROM MUSCULARIS
PACN LT
MOTTLED/NODULAR
RT LIMB PANC
SAG
CAUDAL RT PANC

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.

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