IMAGING PERFORMED BY

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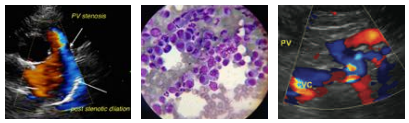

SonoPath
Clinical Sonography & Telecytology
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DATE
9/22/21

PATIENT
Zipp Dailey

SPECIES
Feline

BREED
Domestic Shorthair

SEX
Neutered male

AGE
2013

WEIGHT
13.7 lbs

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

HOSPITAL NAME
Cat Hospital at Towson

REFERRING VET
Dr. Brunt

INVOICE
91932

PRESENTING CLINICAL SIGNS

History: Weight loss, weakness, anorexia 2-3 week duration at presentation 9-19-21. Prev history chronic intermittent vomiting.
Current Medications: Miratazoint. SID, KCL IVF, LRS IV.
Lab Results: anemia, hyperhyperglobulinemia, hypokalemia,
Hypoalbuminemia.
Date of Previous IntraPet Ultrasound: No previous
Sedation: Sedated before sonographer arrival.
Stat Report: Not requested.

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 (5.28 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. A 0.67 cm cortical cyst was noted. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal size and is slightly irregular in shape. This is most consistent with a previous infarct measuring 3.9 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.45 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 0.46 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, 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 large in size, and 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. The right-side of the liver is particularly irregular. There is a focal nodule visualized and measured 1.28 x 0.86 cm. The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are 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. The jejunum measured 0.17 cm. 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. Visualized peristalsis appears appropriate. There is a pocket of hypoechoic fluid in the area of the gastroduodenal junction. The pocket of fluid measures 2.6 x 1.37 cm. There is pancreas in this area as well, so this may represent focal peritonitis or pancreatic abscess (although no wall is visualized). No discrete bowel lesions are observed, but in some high resolution views the fluid appears cloudy and has somewhat of the appearance of a mass effect.

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 hypoechoic as compared to the surrounding isoechoic mesentery. There is a focal pocket of fluid in the area of the gastroduodenal junction. This is also the area of the pancreas. This pocket of fluid may be consistent with localized peritonitis or a poorly defined pancreatic abscess/cyst (no wall is observed) or may be localized free fluid around the pancreas.

Free Abdomen

There is a small amount of free fluid observed between liver lobes and a pocket of fluid observed in the gastroduodenal region. No lymphadenopathy was noted. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Irregular heterogenous liver with focal mass effect on the left side. 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. Changes are concerning for possible neoplastic process. I recommend FNA of the nodule and/or irregular right side of the liver.

- Abnormal fluid pocket at the gastroduodenal junction. The etiology is unclear. It may be a focal area of peritonitis either bacterial or sterile associated with the pancreas or local bowel. Additionally, it may be an ill-defined abscess or cyst associated with the pancreas.

- Hypoechoic, prominent pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

SECONDARY FINDINGS:

- Increased muscularis layer. The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

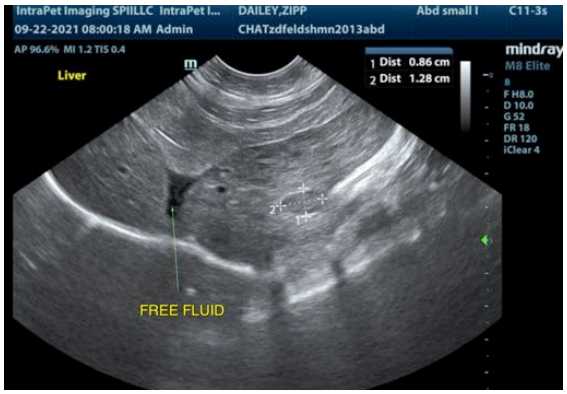
- Echogenic debris in the urinary bladder. The echogenic debris in the bladder lumen could be

consistent with cells, crystals, and/or mucus. Recommend urinalysis and culture.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver appears very abnormal and has a discrete nodule. This is concerning for possible neoplastic change. I recommend cytology or biopsy. Additionally there is a focal area of free fluid at the gastroduodenal junction that is of unknown etiology. This may be pancreatic or associated with the local bowel. Options include possible sampling of this fluid for cytology +/- culture to see if it helps to provide more information or ideally advanced imaging (CT scan) of the abdomen to obtain more information regarding the liver changes and the fluid pocket observed.

I recommend urinalysis and culture, three view thoracic radiographs and consider GI panel with quantitative PLI, cobalamin and folate to obtain more information regarding the pancreas and small intestine.

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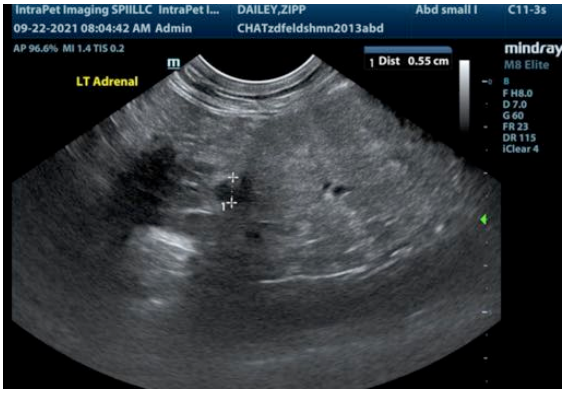
LT
1 Dist 5.28 cm
mindray
M8 Elite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LT Adrenal
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mindray
M8 Elite


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Bladder
mindray
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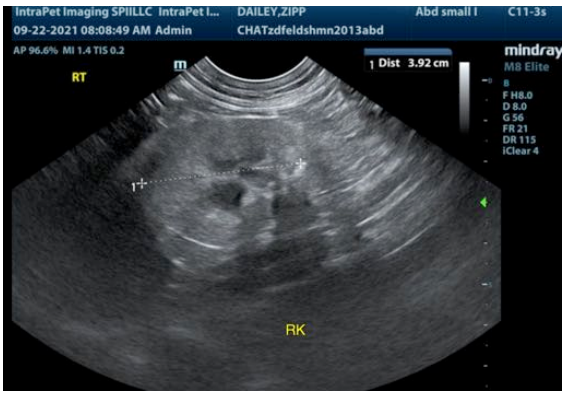
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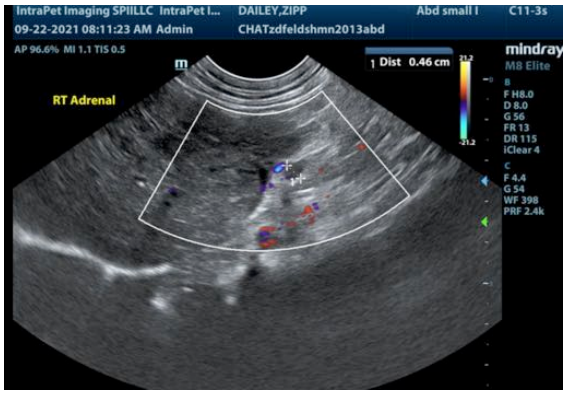
RK
mindray
M8 Elite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09-22-2021 08:11:23 AM Admin CHATzdfeldshmn2013abd
AP 96.6% MI 1.1 TIS 0.5
RT Adrenal
1 Dist 0.46 cm
mindray
M8 Elite


IntraPet Imaging SPIILLC IntraPet I... DAILEY,ZIPP linear ab L14-6Ns
09-22-2021 08:16:35 AM Admin CHATzdfeldshmn2013abd
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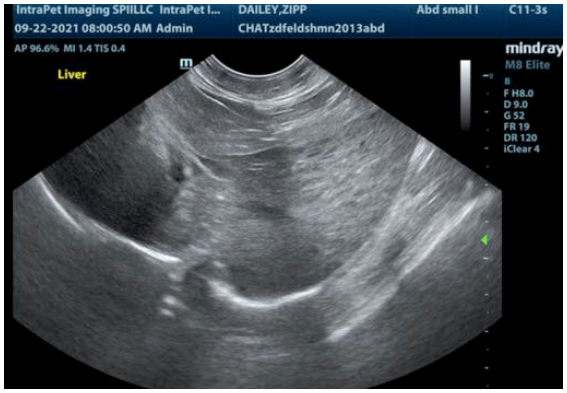
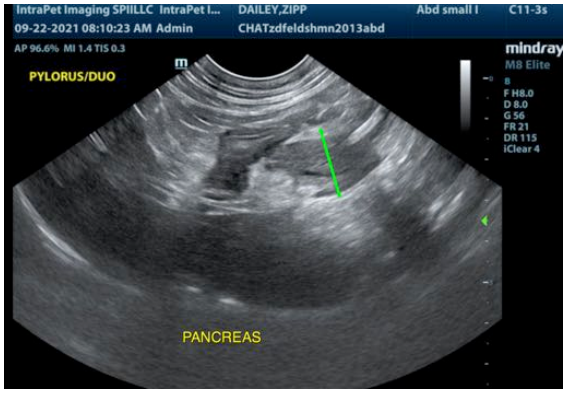
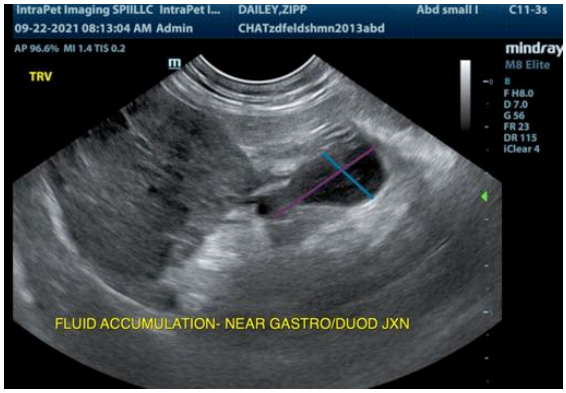
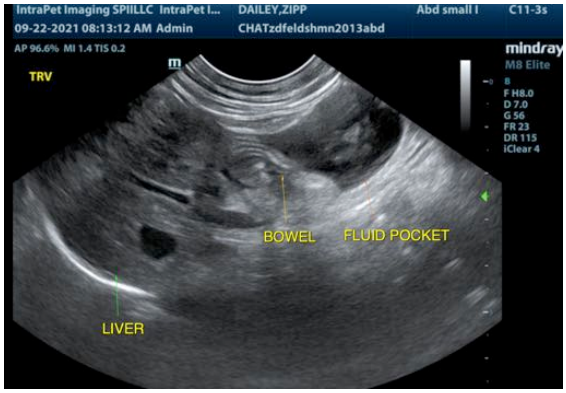
1 Dist 0.17 cm
SI PROMINENT MUSCULARIS
mindray
M8 Elite









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.

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kathleen.sennello@sonopath.com