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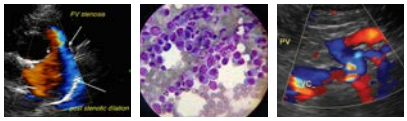

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

7/26/22

PATIENT

Yachty Bowman

SPECIES

Feline

BREED

Exotic Shorthair

SEX

Spayed Female

AGE

6/24/16

WEIGHT

5.7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Martinoli

INVOICE

39801

PRESENTING CLINICAL SIGNS

History of chronic skin problems; allergies/infections. This morning she was vocalizing then they found her laying on the floor and not moving around; seemed limp when tried to make her stand. After a little time she then moved around normally and went to drink out of toilet which is normal for her. Later she became lethargic again and was vocalizing loudly as if in pain. Went to rDVM; UA showed infection; Azotemia; WBC elevated (>40K); concern for sepsis. Urine culture pending. Referred for continued care/IVF.

Current Medications: Unasyn. Started Enrofloxacin @ rdvm- switching to Marbofloxacin.
Date of Previous IntraPet Ultrasound:
Sedation: Not required to complete full diagnostic ultrasound.
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 (3.58 cm) with mild pyelectasia at 0.16 cm. Overall echogenicity is slightly hyperechoic with mildly decreased corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of 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 (3.68 cm). Overall echogenicity is slightly hyperechoic with mildly reduced 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.44 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 0.47 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. The spleen echotexture is heterogenous and mottled, 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 slightly hypoechoic 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The bile duct appears tortuous and mildly to moderately dilated, measuring 0.27 cm.

Gastrointestinal

The stomach is mildly dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 measured 0.25 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate pancreatitis.

Free Abdomen

There is a small amount of free abdominal fluid. There are mildly prominent mesenteric lymph nodes measuring 0.54 cm and 0.29 cm. The omentum is of increased echogenicity in the cranial abdomen and around the pancreas.

PRIMARY FINDINGS

- Prominent, mottled spleen – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Large, hypoechoic, mottled pancreas surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with mild pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Hypoechoic, heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.

- Prominent, tortuous, and slightly dilated bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

- Mild gastric distention with shadowing ingesta and fluid – Correlate with feeding history and abdominal radiographs. This could be consistent with normal ingesta or delayed gastric empting, but consider ingested foreign material as well.

SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with mild left-sided pyelectasia – Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

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

- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

- Small volume free abdominal fluid.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pancreas is large with a prominent, dilated pancreatic duct and mildly hyperechoic surrounding mesentery. Findings are most consistent with mild pancreatitis or recent previous episodes of pancreatitis.

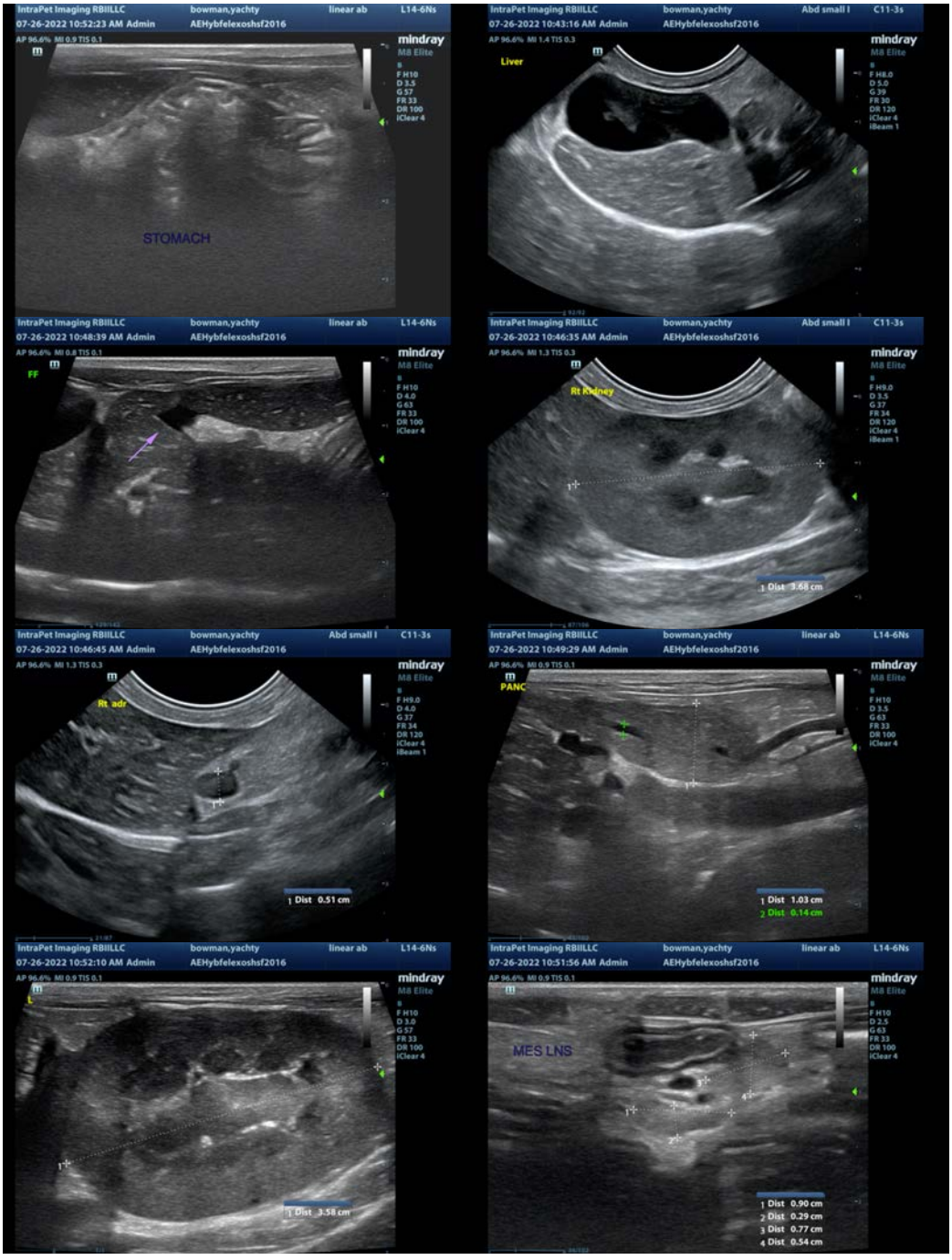
Both the liver and spleen appear somewhat prominent and mottled/heterogeneous. Consider a fine needle aspirate of the spleen if round cell neoplasia is on your differential list. The significance of the heterogeneous liver with a lack of liver enzyme elevations is questionable, but a liver function test could be considered.

There is a small amount of fluid and shadowing debris within the gastric lumen, which could be consistent with ingesta, etc., but correlate with abdominal radiographs in the unlikely event of a small amount of ingested foreign material.

The muscularis layer of the small intestine appears somewhat prominent. This can be a normal finding in some older cats, but could indicate a level of underlying intestinal inflammation. Additionally, there are mildly prominent mesenteric lymph nodes and some free fluid in the abdomen. If a small local pocket can be visualized, consider sampling for fluid analysis and cytology.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

I think your plan to treat for sepsis initially is a good one, while awaiting urine culture results. Additionally, recommend treatment for pancreatitis, rehydration, and continued monitoring of the albumin levels. If symptoms persist and albumin levels are dropping, recommend evaluation of a urine protein to creatinine ratio, a liver function test, and reevaluation of the GI tract for a lesion possibly responsible for protein loss.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2 Dist 0.14 cm
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M8 Elite
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1 Dist 0.90 cm
2 Dist 0.29 cm
3 Dist 0.77 cm
4 Dist 0.54 cm

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.

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