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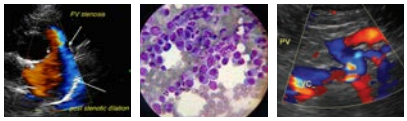
IntraPet.com



SonoPath
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DATE

8/9/22

PATIENT

Cookie Smith

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

6/18/10

WEIGHT

13.4 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Bel Air Vet Hospital

REFERRING VET

Dr. Young

INVOICE

40253

PRESENTING CLINICAL SIGNS

Urinating outside the litter box. Lab work consistent with stage 2 renal disease.

Current Medications: Fluoxetine 5mg PO q 24 hours started 7/30/22.
Lab Results: 7/27/2022 Total Protein 10.0 g/dL, Albumin 4.4 g/dL, Globulins 5.6 g/dL, Creatinine 2.3mg/dL, Total Bilirubin 0.5mg/dL, Amylase 1468 IU/L, pPSL 61 U/l. Urinalysis - USG 1.017.
Date of Previous IntraPet Ultrasound: No previous.
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 (3.91 cm). Overall echogenicity is slightly hyperechoic with poor 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.

The right kidney has a normal shape and size (3.85 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.53 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 0.42 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 large in size, and irregular. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a large, ill-defined, slightly hypoechoic, heterogeneous mass effect visualized in the distal aspect of the liver, measuring approximately 8.52 cm x 3.13 cm. Additionally, there is an irregular, relatively well defined, hypoechoic nodule measuring 1.58 cm 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. 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 0.23 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 normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are visible/mildly prominent mesenteric lymph nodes visualized 0.3, 0.36, 0.32 cm, particularly in the region of the ileocecal junction. The omentum is somewhat hyperechoic in the region of these lymph nodes.

ULTRASONOGRAPHIC FINDINGS

- Mildly decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Large, irregular, heterogeneous liver with a large, ill-defined mass effect and a hypoechoic nodule – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy. The irregular mass effect and the hypoechoic nodule could represent benign or neoplastic processes. Recommend sampling if possible.

- 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.

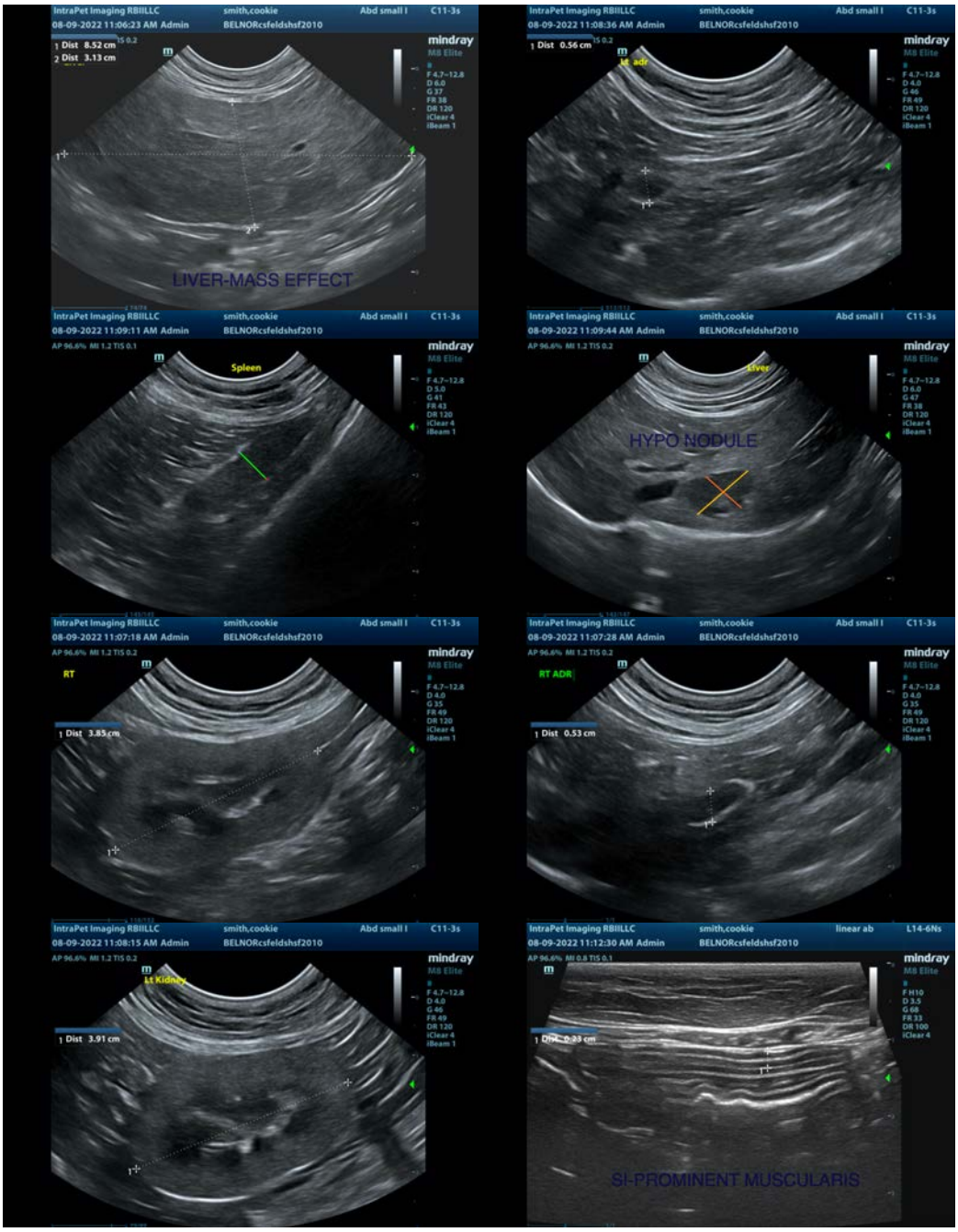
- Prominent mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

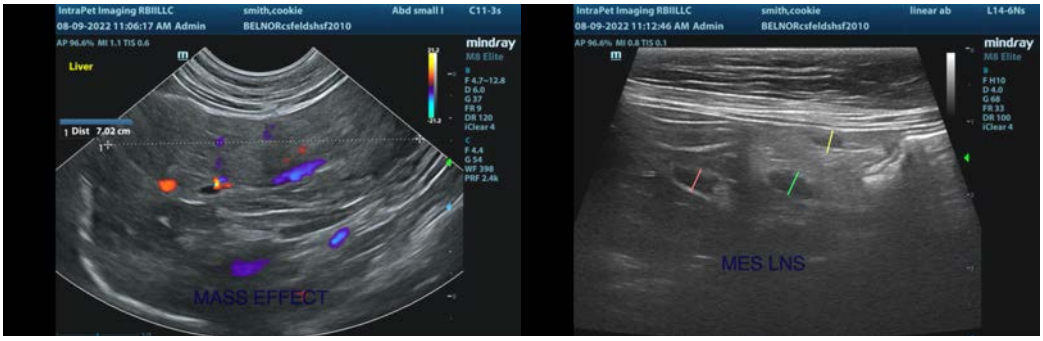
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver appears heterogeneous, and there is a large, irregular, ill-defined, rounded area in the distal aspect of the liver, most consistent with an ill-defined mass effect. Additionally, there is a smaller, deeper hypoechoic nodule visualized. Recommend a fine needle aspirate of the larger mass effect and 3-view thoracic radiographs. If a diagnosis cannot be made cytologically, consider a contrast CT scan to get a more global view of the liver to try and determine if surgical resection is possible.

The changes in the kidneys are most consistent with early chronic renal disease. Recommend blood pressure evaluation, urinalysis and culture to obtain a baseline. Additionally, the muscularis to the small intestine

appears somewhat prominent. This can be a normal finding in some older cats but can be associated with underlying intestinal disease. Additionally, the mesenteric lymph nodes are somewhat prominent in some areas. If signs of underlying GI disease are present, then consider a novel protein/hydrolyzed protein prescription diet and possible workup for underlying gastrointestinal disease.





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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