IMAGING PERFORMED BY

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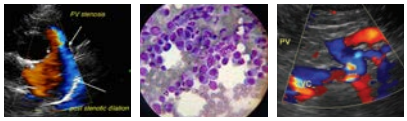

SonoPath

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DATE

11/22/22

PATIENT

Finnegan Merlo

SPECIES

Canine

BREED

Westie

SEX

Neutered Male

AGE

12/23/12

WEIGHT

22.5 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. Goessling

INVOICE

42903

PRESENTING CLINICAL SIGNS

Started Friday evening- was out of dog food and when owner went to get it, they didn't have it, so changed to another food by same company- Blue Buffalo. Ate that Saturday and then threw it all up a few hours later. Owner then tried changing to boiled chicken and he ate that but it couldn't hold it down either. Not really wanting to move around much, whimpers when owner picks him up. Shaky and unsteady when he gets up, sometimes will just flop right back down. Saw RDVM and had blood work- low WBC's, low BG, increased ALT/ Alkp, Increased BUN, low lytes. UA was active, culture pending. Sent for continued care and work up.

Current Medications: Dextrose, maropitant, unasyn, protonix
Lab Results: Low WBC's, increased ALKP/ALT, mild anemia
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 prostate is normal in size (0.80 cm) and shape for this neutered male dog. The parenchyma is homogenous, and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.93 cm) with mild pyelectasia at 0.20 cm. Overall echogenicity is slightly hyperechoic with mildly reduced 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 (5.37 cm) with mild pyelectasia at 0.17 cm. Overall echogenicity is slightly hyperechoic with poor 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.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.65 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 0.72 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 normal in size, and 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.

The gall bladder lumen is significantly distended. The wall is prominent (0.36 cm) and hyperechoic with some areas of adherent debris. There is a large amount of primarily non-organized echogenic debris. The bile duct appears somewhat prominent and dilated (0.39 cm). No point of obstruction is visualized.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 0.45 cm 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. In some images, the gastric wall appears slightly thickened and irregular. This could be due to imaging artifact, edema, inflammation, etc.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.49 cm. Jejunum wall measures 0.31 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 mild pancreatitis.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There is a prominent cranial abdominal lymph node measuring 0.57 cm in diameter and an irregular mixed echogenicity ln measuring .8cm. The omentum appears somewhat hyperechoic in the cranial abdomen.

PRIMARY FINDINGS

- Mildly hypoechoic right limb of the pancreas with hyperechoic mesentery surrounding – 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.

- Heterogeneous, hypoechoic liver le – 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.

- Mildly distended gallbladder with a large amount of echogenic debris, a prominent gallbladder wall, and prominent bile duct – This could be consistent with early gallbladder debris +/- cholecystitis.

- Subjectively prominent/thickened stomach wall – The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.

- Mildly hyperechoic mesentery in the cranial abdomen with prominent mesenteric lymph nodes –

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

SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with mild pyelectasia – The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is somewhat heterogeneous and hypoechoic. This is a non-specific finding that can be seen with inflammation, infection, infiltration, etc.. Additionally, the gallbladder is somewhat prominent with a prominent wall and a mildly dilated bile duct. These changes could be consistent with a primary hepatopathy +/- biliary disease.

Additionally, the pancreas appears somewhat prominent and mildly inflamed. Correlate these findings with a quantitative cPLI level and recommend symptomatic treatment for pancreatitis/gastroenteritis.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc...

- Consider PCR on urine/serum for leptospirosis (if not on antibiotics)/serology if recent antibiotic history

- If not already done, consider pre and post prandial bile acids to evaluate liver function

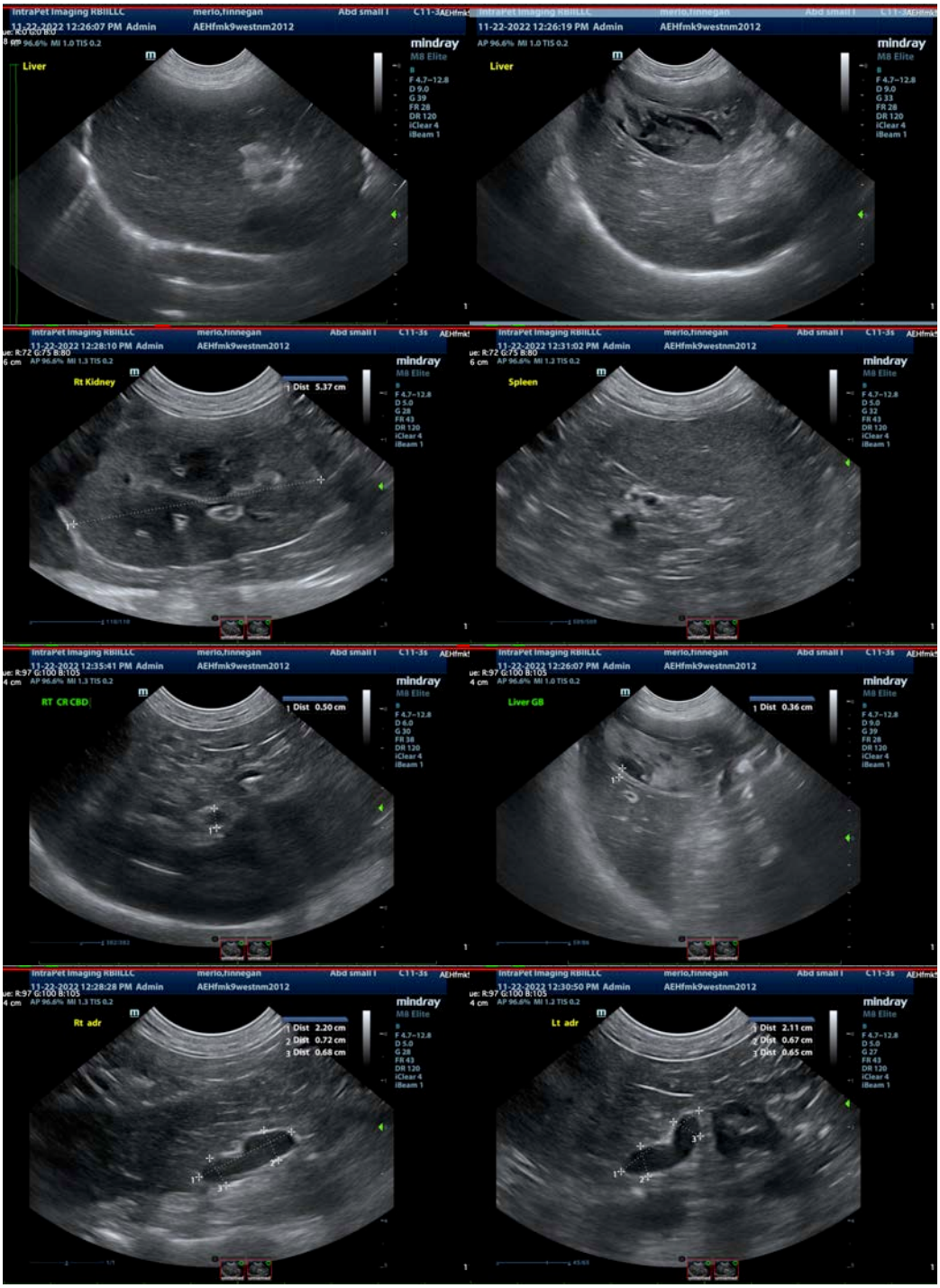
- Consider Fine needle aspirate if round cell neoplasia is on your differentia list (25 g needle, normal coags)

- If no response to supportive care (Denamarin, fluids, antibiotics, +/- ursodiol etc.) Consider liver biopsy with samples obtained for histopathology, culture, and copper levels.

Additionally, I would recommend starting Ursodiol and a course of antibiotics with continued monitoring of the gallbladder for progression of this lesion.

In some images, the gastric wall appeared slightly irregular and thickened. This was not repeatable in all of the images visualized. If vomiting persists despite appropriate treatment, you could consider reevaluation of the stomach and possible biopsies of the gastric wall.

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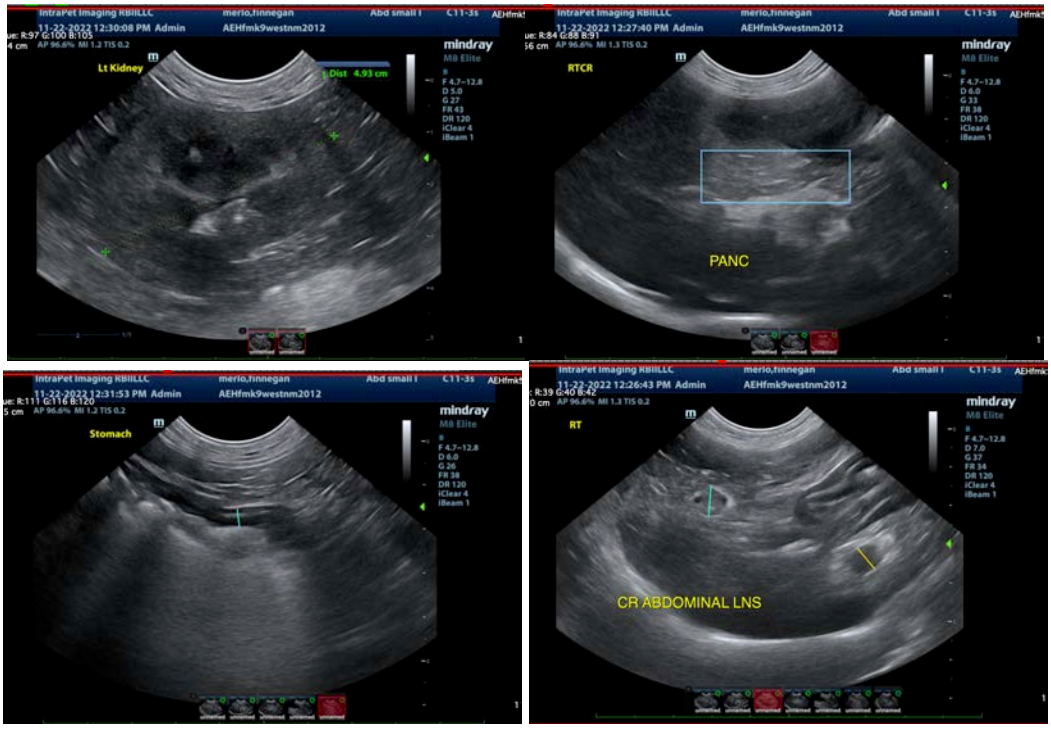

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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