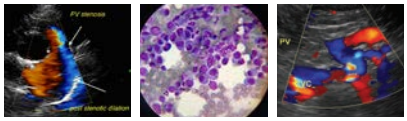
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

6/20/23

PATIENT

Kate Cannella

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

1/16/14

WEIGHT

89.1 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Martinoli

INVOICE

43287

PRESENTING CLINICAL SIGNS

Referred from Animal Care Center for continued care and AUS Presented with acute pain today; had eaten breakfast normally. Owner left briefly then when she came home she saw that Kate was retching, non-productive, and was hunched and groaning. Went to rDVM; had abdominal and thoracic radiographs; NSF. Bloodwork including 4DX showed NSF except Alkp slightly elevated. Abdomen was severely painful. Referred for supportive care and AUS tomorrow. Does have history of intermittent vomiting with reduced appetite.

Current Medications: Buprenorphine, Ondansetron.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

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 (8.12 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.

The right kidney has a normal shape and size (7.44 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 0.82 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 0.98 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 large and irregular. 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. There are ill-defined hyper- and hypoechoic areas in the splenic parenchyma. Some of these are associated with irregular regions of the splenic capsule creating a “bulging” effect. One of the hyperechoic regions measures approximately 3.87 cm x 3.03 cm. A hypoechoic region measures 2.52 cm x 1.12 cm.

Liver

The liver is large in size, and normal in 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. There are numerous ill-defined hyper- and hypoechoic nodules visualized

throughout the parenchyma. A more focal, mixed echogenic nodule is visualized on the right side measuring 2.8 cm x 2.02 cm.

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 cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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 appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measures 0.45 cm. Jejunum wall measures 0.46 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

There is scant free abdominal fluid. There are occasional prominent/enlarged lymph nodes visualized. A lymph node at the mesenteric root is visualized measuring 1.06 cm x 3.8 cm, which appears slightly cystic with a cystic region measuring 0.55 cm x 0.64 cm. The omentum appears slightly hyperechoic in the region of the pancreas.

Other

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

No pleural effusion or thoracic mass lesions are visualized.

PRIMARY FINDINGS

- Large, mottled, irregular 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.

- Prominent pancreas with mild mottling and mild surrounding inflammation – The pancreatic changes are most consistent with moderate 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.

- Large, heterogeneous liver with ill-defined hyper- and hypoechoic nodules and a large mixed echogenic nodule visualized on the right 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. While the appearance of many of the hyper-

and hypoechoic trends towards benign lesions, the mixed echogenic larger nodule on the right could represent a benign or neoplastic lesion.

- Subjectively thickened small intestine – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

- Scant free abdominal fluid

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

SECONDARY FINDINGS

- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

While there are numerous small, somewhat non-specific lesions visualized in the abdomen, an obvious cause for the acute abdominal pain is not readily apparent. The pancreas appears prominent and has mild inflammation. Correlate with a quantitative PLI measurement and recommend symptomatic therapy for pancreatitis.

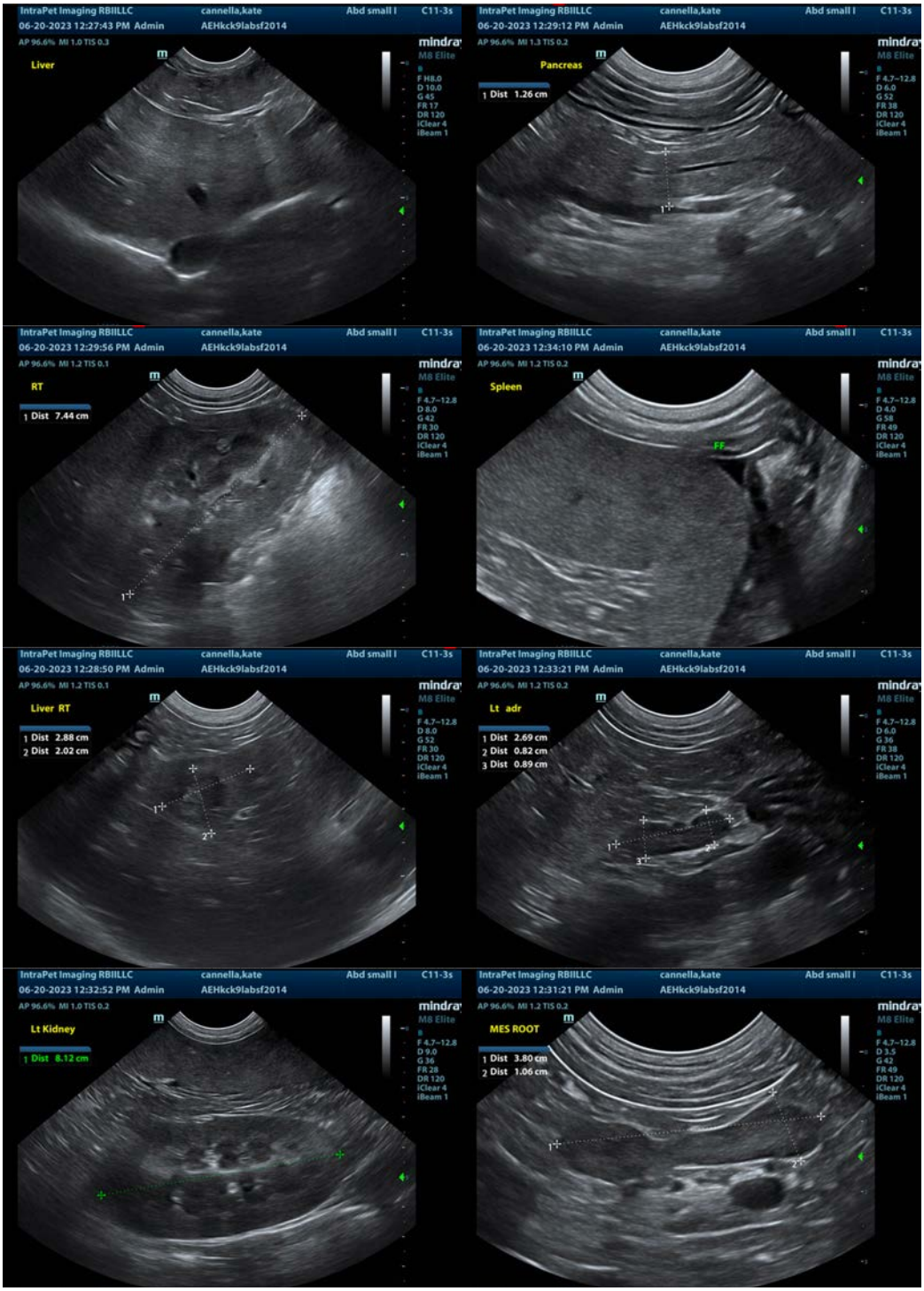
The spleen is large and somewhat irregular with some scalloping and some ill-defined hyper- and hypoechoic regions. The significance of this is unclear. A fine needle aspirate of the spleen should be considered.

The liver is large and heterogeneous with ill-defined hyper- and hypoechoic nodules. These changes are non-specific and could be consistent with a vacuolar hepatopathy or some other benign process, although the larger, mixed echogenic nodule on the right side is more concerning. If a window exists for sampling, a fine needle aspirate could be considered. Otherwise, a contrast CT scan could be considered, or continued monitoring with ultrasound.

No effusion or obvious heart base mass lesions are visualized. Recommend a cardiac ultrasound to further evaluate the heart.

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

Consider symptomatic treatment for pancreatitis and reevaluation of the pancreas if the patient is not improving, keeping an open mind to other possible concurrent issues. Additionally consider a fine needle aspirate of the spleen and the large liver nodule if possible. If the free fluid in the abdomen increases in volume, or if there is a prominent mesenteric lymph node within region, sampling of these areas could be considered.


IntraPet Imaging RBIILLC
cannella,kate
Abd small I
C11-3s
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AEHkck9labsf2014
Liver
IntraPet Imaging RBIILLC
cannella,kate
Abd small I
C11-3s
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AEHkck9labsf2014
Pancreas
1 Dist 1.26 cm
IntraPet Imaging RBIILLC
cannella,kate
Abd small I
C11-3s
06-20-2023 12:29:56 PM Admin
AEHkck9labsf2014
RT
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IntraPet Imaging RBIILLC
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Abd small I
C11-3s
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Spleen
FF
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Abd small I
C11-3s
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AEHkck9labsf2014
Liver RT
1 Dist 2.88 cm
2 Dist 2.02 cm
IntraPet Imaging RBIILLC
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Abd small I
C11-3s
06-20-2023 12:33:21 PM Admin
AEHkck9labsf2014
Lt adr
1 Dist 2.69 cm
2 Dist 0.82 cm
3 Dist 0.89 cm
IntraPet Imaging RBIILLC
cannella,kate
Abd small I
C11-3s
06-20-2023 12:32:52 PM Admin
AEHkck9labsf2014
Lt Kidney
1 Dist 8.12 cm
IntraPet Imaging RBIILLC
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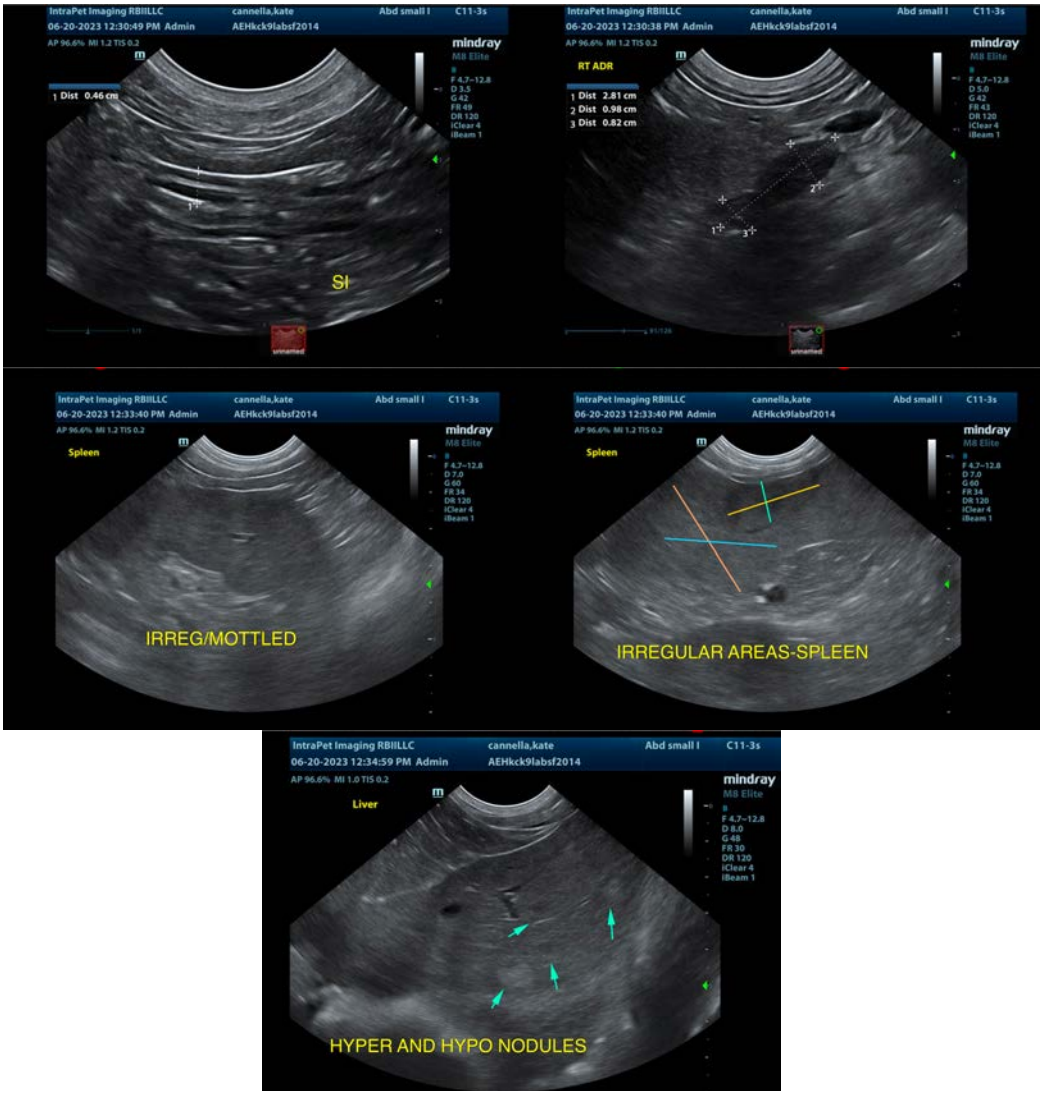
Abd small I
C11-3s
06-20-2023 12:31:21 PM Admin
AEHkck9labsf2014
MES ROOT
1 Dist 3.80 cm
2 Dist 1.06 cm



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.

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