

**DATE PRESENTING CLINICAL SIGNS**

12/16/21 History: Diarrhea for the past month. Lymphadenopathy.

PATIENT

Bo Duke Ernst

Current Medications: Amoxi 500 mg 2 bid po, Metronidazole 500 mg BID, Panacur 1 packet daily x 5 days.
Lab Results: Elevated WBC at AAVEC 2 weeks ago. Cytology of lymph nodes pending.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Dexdomitor IV

SPECIES

Canine

Stat Report: Not requested.

BREED

Mixed

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.

SEX

Neutered Male

The prostate is normal in size 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.

AGE

7/13/14

The left 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 perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

98 Pounds

INTERPRETED BY

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

The right kidney has a normal shape and size (6.8 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, infarcts or hydroureter. Renal vasculature is normal.

IMAGING PERFORMED BY

Rachel Brilhart RDMS

Adrenal Glands

The left adrenal gland is normal in size measuring 0.84 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.

HOSPITAL NAME

Severna Park AH

The right adrenal gland is normal in size measuring 0.90 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.

REFERRING VET

Dr. Heard

Spleen

The spleen is large in size. The spleen echotexture is heterogenous and severely mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a diffuse reticulated pattern in the spleen, and several ill-defined hypoechoic nodules, the largest measuring 1.23 cm.

INVOICE

33501

Liver

The liver is large 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. No focal nodules or cystic lesions are observed.

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 <0.7cm 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 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 is a severe diffuse peripheral and mesenteric lymphadenopathy present with enlarged cervical, popliteal, sublumbal, portal, and abdominal lymph nodes visualized at the mesenteric root. The portal lymph node measures 3.33 cm x 2.7 cm. The sublumbal lymph node measures 1.76 cm x 3.49 cm. A lymph node measured at the mesenteric root is 3.44 cm x 2.42 cm. The omentum is of increased echogenicity around the enlarged lymph nodes.

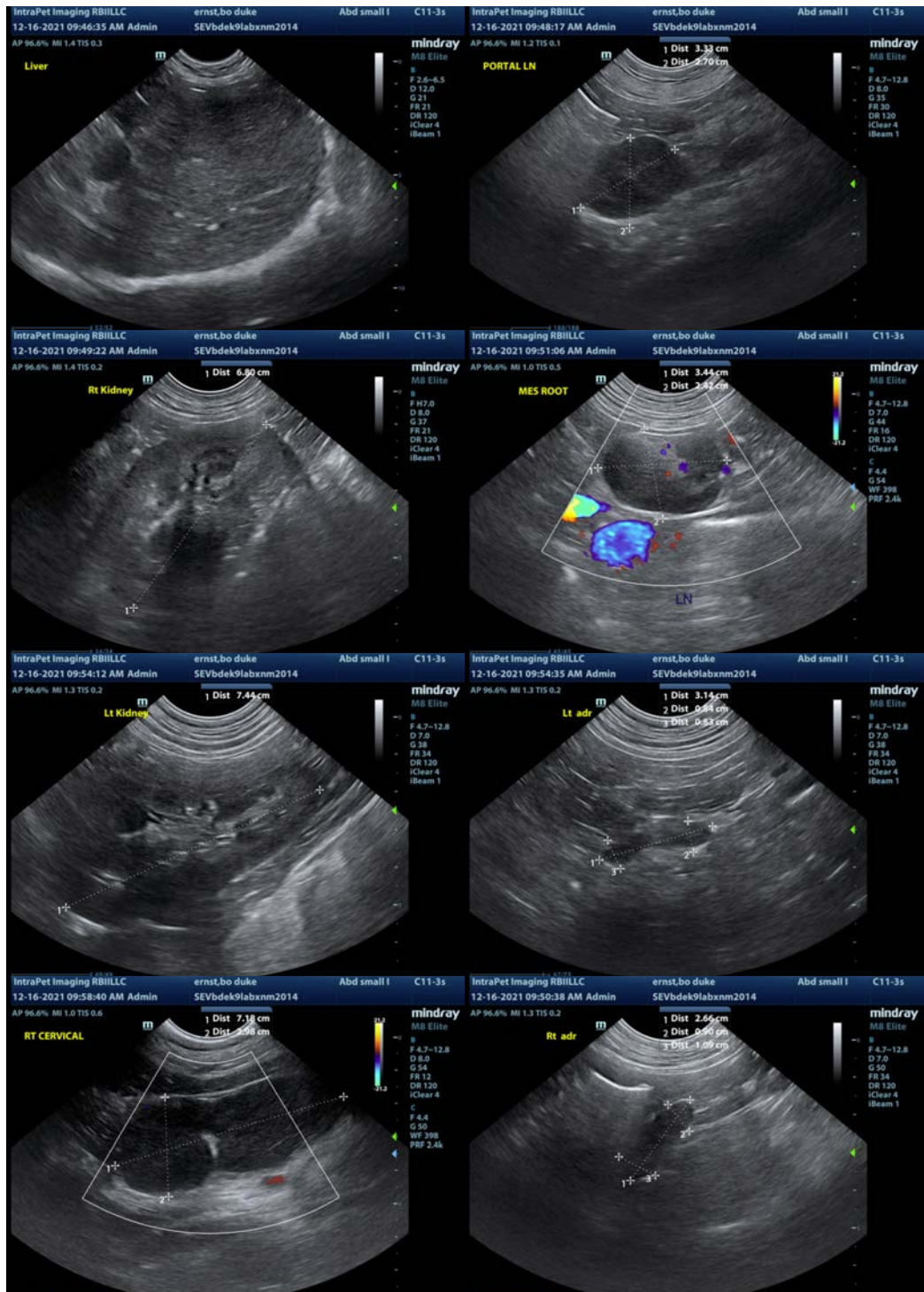
ULTRASONOGRAPHIC FINDINGS

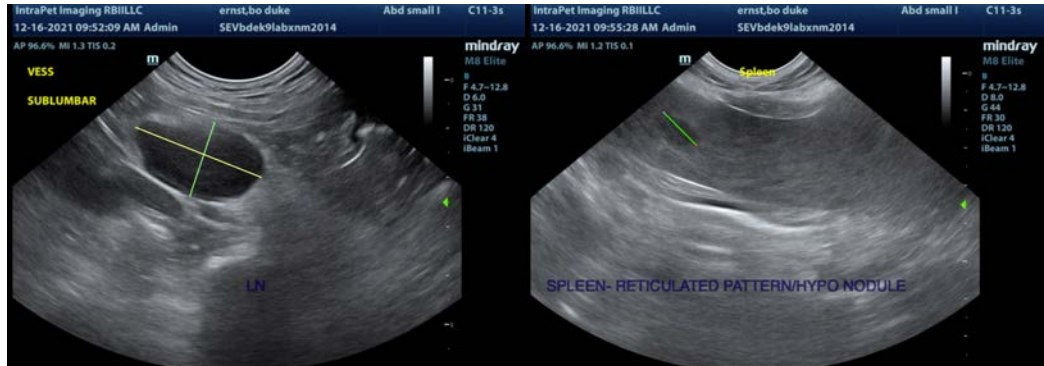
- Severe diffuse lymphadenopathy (peripheral and abdominal) – most consistent with an underlying round cell neoplasia. Other differentials exist, but are thought less likely.
- Large, mottled, reticulated spleen with ill-defined, hypoechoic nodules – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis. This is a common pattern found with lymphoma.
- Hypoechoic, heterogeneous liver – 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. Hypoechoic, heterogeneous echotexture favors an inflammatory or infiltrative process. Suspect round cell neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The combination of severe peripheral and mesenteric lymphadenopathy, reticulated pattern to the spleen, and hypoechoic, large heterogeneous liver are suggestive of a systemic issue. Most likely differential is round cell neoplasia. A fine needle aspirate of a peripheral lymph node is pending. If this is not diagnostic, consider an aspirate of a mesenteric lymph node, spleen or liver. If round cell neoplasia is diagnosed, recommend consultation regarding prognosis and treatment option with veterinary oncologist. Recommend 3-view

thoracic radiographs.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com