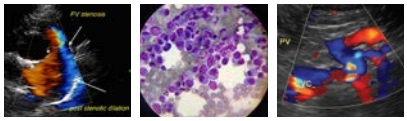
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

11/25/22

PATIENT

Nandi Martin

SPECIES

Canine

BREED

Shepherd X

SEX

Intact Female

AGE

8/22/17

WEIGHT

65 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Warga RDCS, RVT

HOSPITAL NAME

Hickory Vet Hospital

REFERRING VET

Dr. McCourt

INVOICE

42969

PRESENTING CLINICAL SIGNS

Several week history of weight loss, dec appetite, intermittent V. No diarrhea noted by o. PE very nervous, no abd pain noted, normal auscultation and normal oral exam. P thin, bcs 4/9. Last heat cycle less than 6 weeks ago. Labs and abd Rads WNL. Fecal 2w later hookworm Ag +, treated with drontal plus, no improvement in clinical signs. Continued weight loss, bilious vomiting SID, continued decreased appetite. Vomiting responds to Cerenia but appetite does not improve. Resting cortisol borderline.

Current Medications: Cerenia 60mg PRN, DRONTAL PLUS
Lab Results: Chem 22- NSF. Na/K ratio normal (33).. CBC- Mild-moderate neutrophilia 19k
Radiographs: decreased detail, no obstructive pattern noted, no obvious free fluid or organomegally, no evidence of pyometra/pregnancy
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Approved/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 (6.49 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 (7.63 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 0.49 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 0.62 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 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. 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 cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains mild to moderate luminal contents (primarily fluid). Some of the areas of the gastric wall appear normal, measuring at a normal thickness of <0.7 cm with some variability due to the presence of rugal folds. In these regions, the distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. In other areas, there appears to be irregular hypoechoic tissue visualized along the wall of the stomach with no obvious area of attachment or involvement of the gastric wall layering observed. This abnormal tissue does color flow on the power doppler and measures >4.94 cm x 2.62 cm. This is most consistent with a gastric wall mass where the attachment is not clearly visualized.

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 mesenteric lymphadenopathy present with enlarged, hypoechoic, rounded lymph nodes visualized in the cranial abdomen, mid abdomen, and caudal abdomen. Examples of lymph nodes include one in the cranial abdomen dorsal to the stomach measuring 7.23 cm x 3.12 cm, additionally the gastric and hepatic lymph nodes are visualized measuring 2.7 cm x 1.45 cm and 0.95 cm. In the mid abdomen, there are clusters of enlarged hypoechoic lymph nodes measuring 3.17 cm x 3.11 cm and 3.14 cm x 1.85 cm. Additionally, along the iliac trifurcation, there is a large cluster of lymph nodes measuring 2.4 cm x 5.4 cm, 1.17 cm in diameter, and 1.92 cm in diameter.

The omentum is of normal echogenicity.

The left and right ovary are visualized and appear within normal limits.

ULTRASONOGRAPHIC FINDINGS

- Mildly 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.

- 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.

- Hypoechoic abnormal tissue visualized within the gastric lumen – Findings are concerning for a possible gastric mass, polyp, etc.

- Severe mesenteric lymphadenopathy – The severe mesenteric lymphadenopathy is most concerning for a neoplastic process, although you can see significant lymphadenopathy in some cases of autoimmune/inflammatory disease, infectious disease (tick born disease-such as bartonella, fungal infections, FIP (cats)) etc. A fine needle aspirate with cytology is recommended for further evaluation.

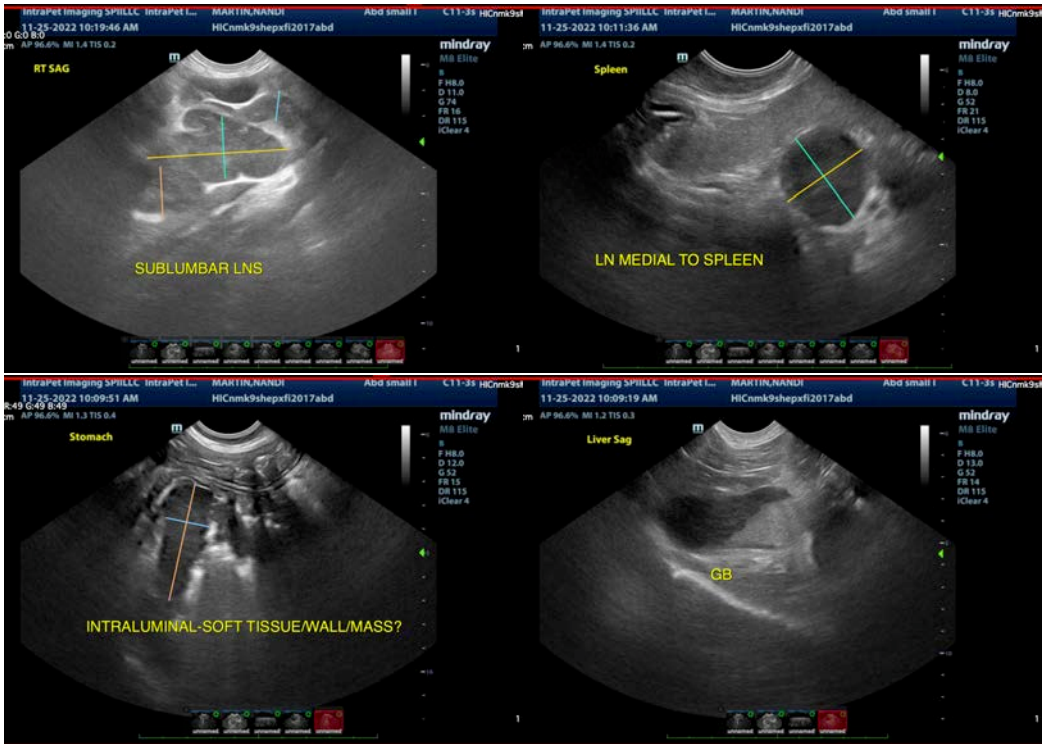
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

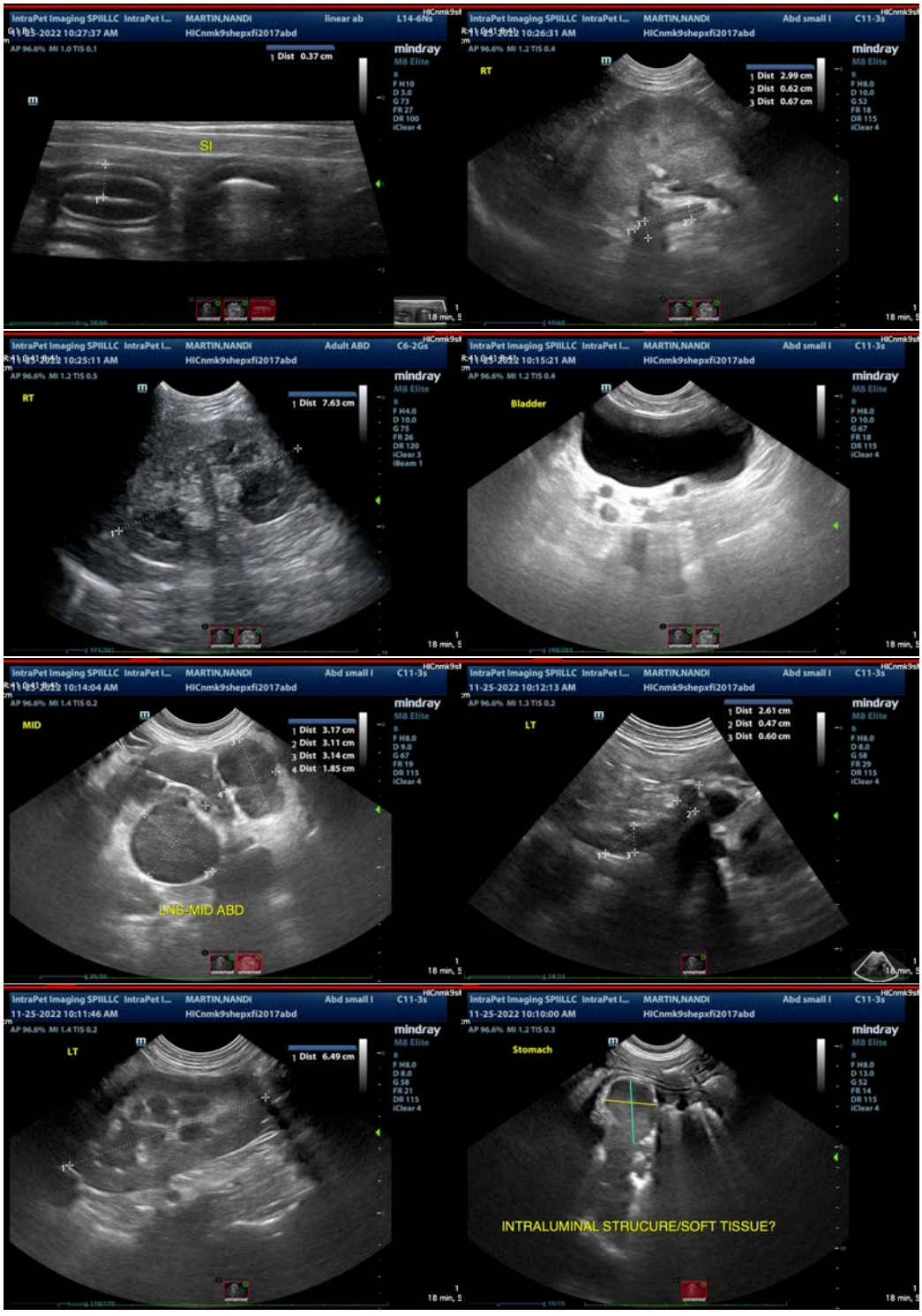
There are numerous severely enlarged hypoechoic, rounded lymph nodes visualized within the abdomen. Recommend a fine needle aspirate of these lesions, as round cell neoplasia would be the primary concern, although other differentials are possible.

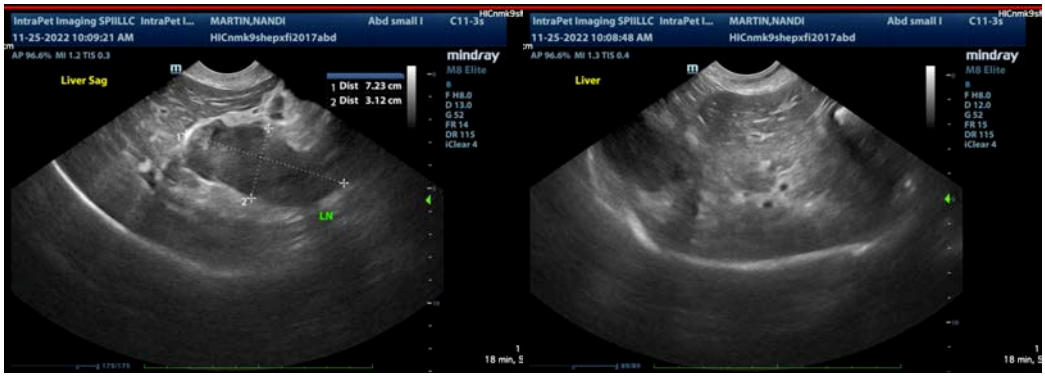
There is hypoechoic, irregular, abnormal tissue visualized within the gastric lumen. This appears to be vascular and most consistent with tissue, but an obvious attachment to the gastric wall is not visualized, and wall layering appears relatively normal. If a cytologic diagnosis cannot be obtained based on fine needle aspirate of the liver, an upper GI endoscopy could be considered to biopsy and evaluate the abnormal tissue visualized in the stomach.

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

If a diagnosis is still elusive, then consider surgical biopsies.




SI
RT
RT
Bladder
MID
LNS-MID ABD
LT
LT
Stomach
INTRALUMINAL STRUCURE/SOFT TISSUE?



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)
kathleen.sennello@sonopath.com