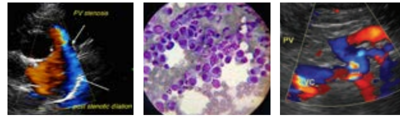
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4268 info@sonopath.com SonoPath.com

DATE

9/1/22

PATIENT

Lacey Erickson

SPECIES

Canine

BREED

Puggle

SEX

Spayed Female

AGE

1/1/09

WEIGHT

27.7 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Warga RDCS, RVT

HOSPITAL NAME

Alexander AH

REFERRING VET

Dr. Whitley

INVOICE

40954

PRESENTING CLINICAL SIGNS

Hepatomegaly, PU/PD, increased Appetite, Lethargy, Blind, Pendulous Abdomen. 02/23/22 increased ALKP (300's)

Current Medications: Gabapentin 100mg BID, Flubiprofen 1 drop OU SID – BID.
Lab Results: increase ALKP 313 on 02/23/22.
Radiographs: Nothing obvious on radiographs on 08/26/22
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 (4.53 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 (5.81 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 large measuring 1.1 cm at the cranial pole, 1.14 cm at the caudal pole, and 3.45 cm in length. 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 large measuring 1.13 cm at the cranial pole, 0.84 cm at the caudal pole, and 2.77 cm in length. 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 with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened (0.28 cm) with adherent debris and there is organization and stranding of this debris into a mucocele. There is minimal surrounding inflammation and no obvious free fluid observed. The bile duct is normal/not visible. Findings are consistent with a mucocele. Consider close monitoring and initial medical management.

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 is a focal hypoechoic bowel mass visualized in the small intestine, measuring 2.10 cm x 1.94 cm. There is no evidence of an obstruction at this site.

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 prominent mesenteric lymph node near the bowel mass measuring 1.38 cm in diameter. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Large, hyperechoic liver – The diffuse hepatic changes are non-specific and can be seen with vacuolar hepatopathy, reactive change, nodular hyperplasia or, less likely, inflammatory/immune-mediated disease, infiltrative neoplasia, or other hepatopathy.

- Gallbladder mucocele – A mature gallbladder mucocele is visualized with mild wall thickening and minimal surrounding inflammation.

- Focal hypoechoic bowel mass – This lesion is very focal, and the rest of the small intestine appears relatively normal. This could be consistent with a benign or neoplastic lesion. Consider such differentials as a leiomyoma, leiomyosarcoma, carcinoma, lymphoma, etc.

- Prominent mesenteric lymph node in the region of the bowel mass – 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

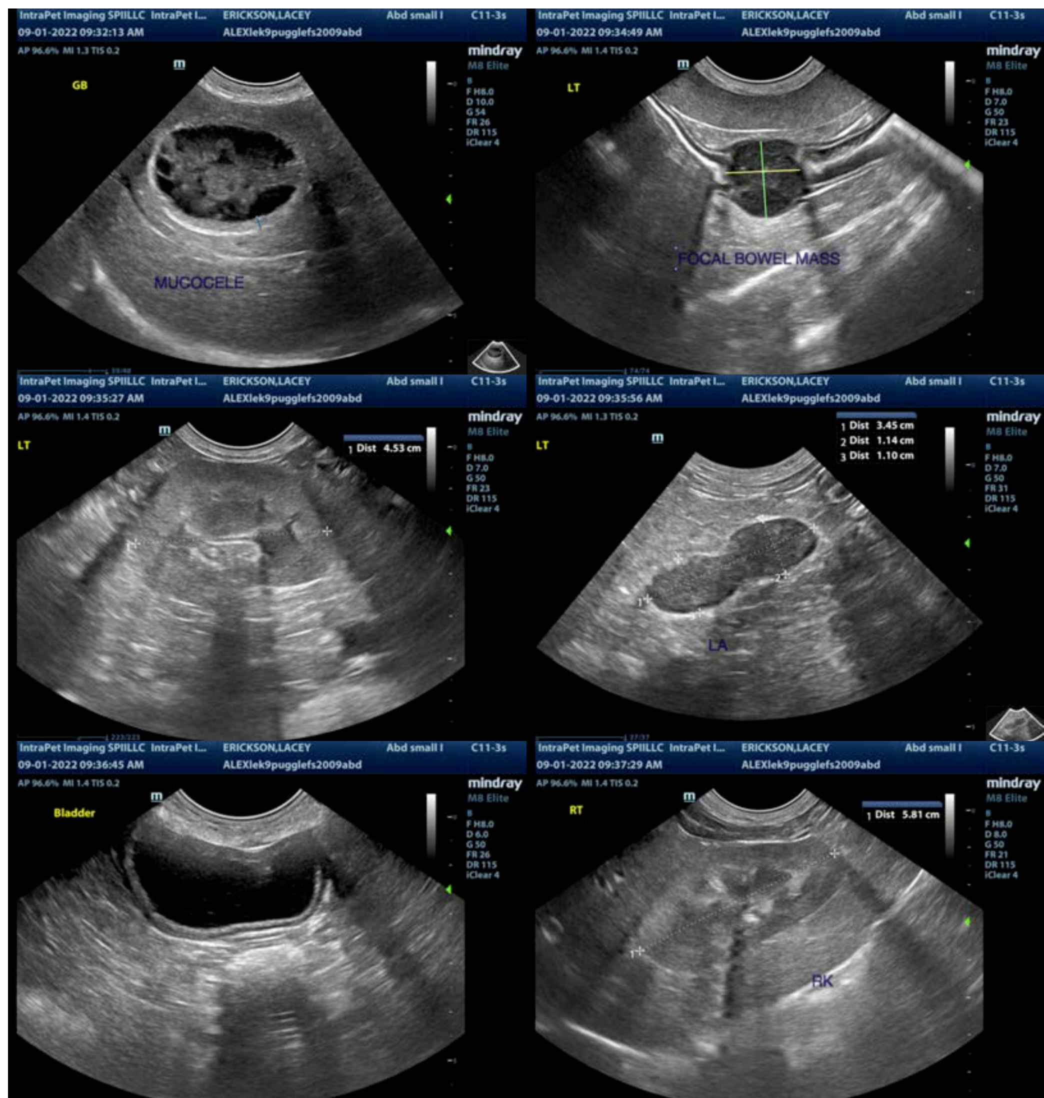
The changes described associated with the adrenal glands and the liver could be consistent with pituitary dependent hyperadrenocorticism. If this clinically fits, consider adrenal function testing and possible medical management.

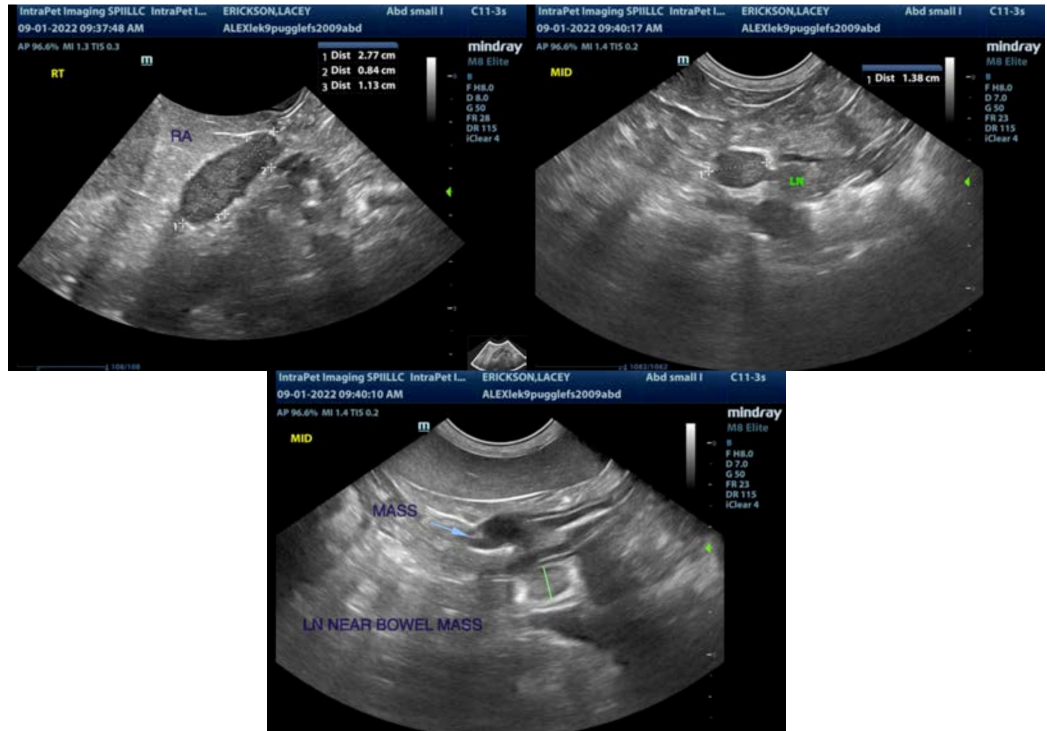
Additionally, there is a mature mucocele present. There is no surrounding fluid or inflammation, so initially medical management can be attempted, but I suspect this will either progress to a surgical lesion or not

improve. Recommend Ursodiol and close monitoring with ultrasound and bloodwork.

There is a very discrete, focal hypoechoic bowel mass visualized. Unfortunately, on today's exam it lies deep to the spleen, so a fine needle aspirate would be very difficult. If a cytologic evaluation is not possible, I would consider surgery to remove the mass lesion and submit for histopathology, and I would consider removal of the gallbladder at the same time. This is a subjective judgement call, and would depend on the status of the patient and her risk with anesthesia, etc. There is a lymph node that is enlarged in the region of the bowel mass. This should be sampled at the time of surgery as well.

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





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