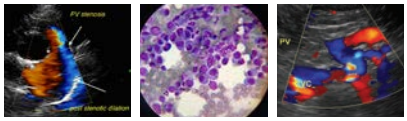
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

6/21/22

PATIENT

Max Brandenburg

SPECIES

Canine

BREED

Labrador

SEX

Neutered Male

AGE

6/27/16

WEIGHT

61 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Banfield White Marsh

REFERRING VET

Dr. Esdaile

INVOICE

38941

PRESENTING CLINICAL SIGNS

Persistent hepatopathy (particularly ALKP). Was on denamarin at the beginning of 2021 when levels were first noted as elevated. After a two month course of meds, ALKP went back down to normal. Once meds were stopped, they started to creep back up again.

Current Medications: Previously on denamarin but not currently.
Lab Results: 6/5/22 ALKP 337 [23-212]. 8/18/21 ALKP 180. 7/9/21 ALKP 128. 3/24/21 ALKP 242. 2/25/21 ALKP 417.
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 contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The prostate is unable to be fully visualized due to colon artifact in the area. However, there is no overt pathology appreciated in the area of the prostate.

The right kidney is normal in size (6.74 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (6.74 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is normal in size (2.89 cm long x 0.70 cm at the cranial pole and 0.85 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (3.24 cm long x 0.48 cm at the cranial pole and 0.60 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively enlarged with irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. Mineral debris/sand and cholecystoliths are also noted. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion.

At the aortic bifurcation, in the area of the medial iliac lymph nodes, there is a round 1.2 cm x 1.4 cm hyperechoic structure, consistent with a lymph node.

ULTRASONOGRAPHIC FINDINGS

- Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili. In this patient, given the concurrent finding of cholecystoliths, this finding is considered a clinically significant contributor to the increased ALP, most likely.

- Liver Nodular Hyperplasia – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Enlarged, hyperechoic structure near the aortic bifurcation, believed to be an enlarged, likely reactive medial iliac lymph node.

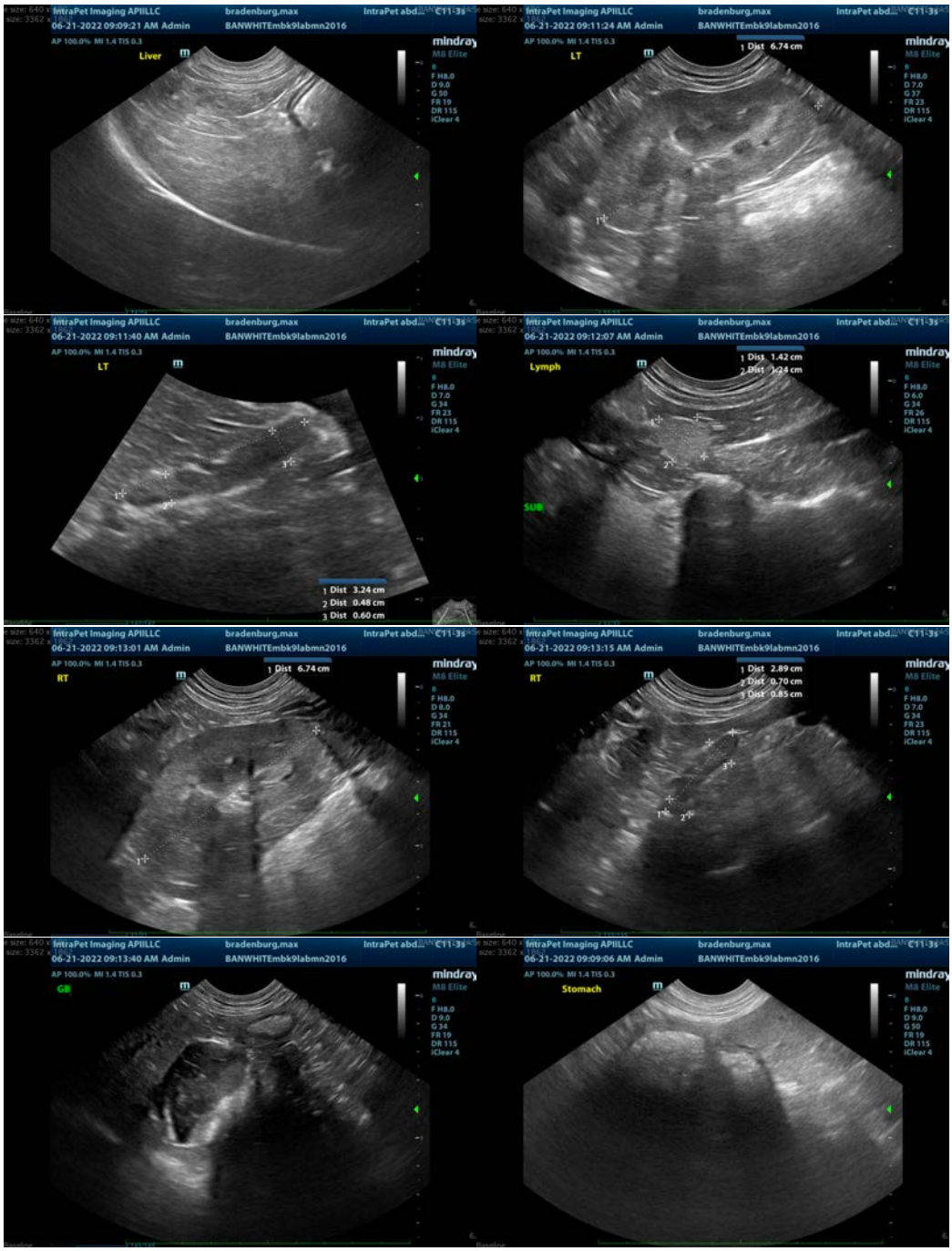
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

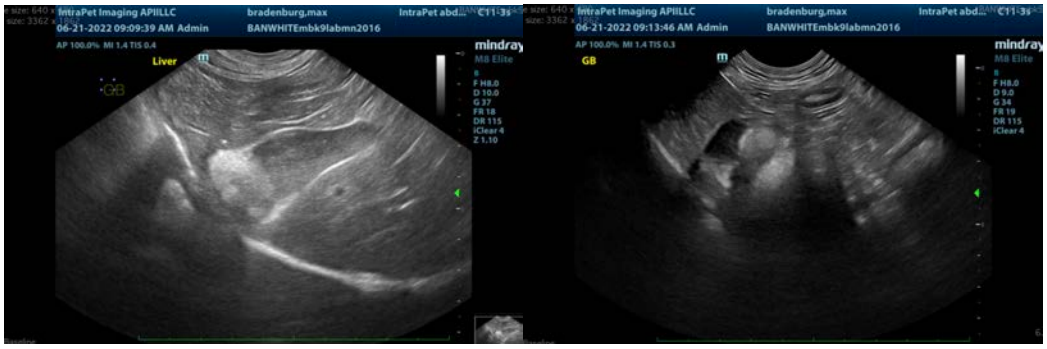
- A trial with broad-spectrum antibiotics and Ursodiol with monitoring of the ALP for improvement. Recommendations are to include antibiotics for at least two weeks beyond normalization of the ALP and likely continue Ursodiol long-term.

- If improvement is not noted, a fine needle aspirate of the liver could be considered.

- If not already evaluated, a rectal exam is recommended to further assess any caudal pathology that could be causing medial iliac lymphadenopathy. However, if pathology is not appreciated, monitoring of this structure/lymph node with a repeat ultrasound in 4-6 weeks is recommended. A

more aggressive approach could include a fine needle aspirate of this structure, if possible, and if patient's coagulation status is appropriate.





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.

Beth Johnson, DVM, DACVIM
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