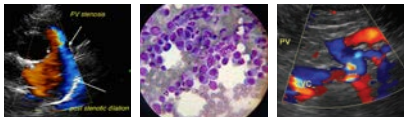
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE

11/8/22

PATIENT

Stitch Jackson

SPECIES

Canine

BREED

Bassett Hound X

SEX

Neutered Male

AGE

10/5/10

WEIGHT

69 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Stephanie Warga
RDCS, RVT

HOSPITAL NAME

Parkville AH

REFERRING VET

Dr. Mangini

INVOICE

42645

PRESENTING CLINICAL SIGNS

Elevated liver enzymes, early kidney disease.

Current Medications: Denamarin in July for one month
Lab Results: DM: 06-21-22 at 2:57p: SDMA slightly elevated (15) and ALT elevated (270). Recommend urinalysis (free catch) and denamarin from CHEWEY for 1 month and recheck ALT. 09-26-22 at 3:13p: ALT a little higher (302). Recommend sonogram and urinalysis.
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

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The area of the prostate is examined without evident pathology.

The right kidney is normal in size (6.81 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 or infarcts observed. Non-obstructive areas of mineralization/small nephroliths are noted.

The left kidney is normal in size (6.97 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 or infarcts observed. Non-obstructive areas of mineralization/small nephroliths are noted.

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 3.1 cm long x 0.78 cm at the cranial pole and 0.82 cm at the caudal pole. The left adrenal gland measures 3.75 cm long x 0.99 cm at the cranial pole and 1.68 cm at the caudal pole.

Spleen

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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. A discrete, approximately 1.0 cm hyperechoic nodule is noted in the left liver. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately overdistended with organized, aggregated and centralized non-gravity dependent sludge. Striations of sludge separated by anechoic areas are noted extending from the lumen to the luminal wall. The wall is mildly thick, irregular and hyperechoic. There is no evidence of CBD dilation. There appears to be mineral foci within the common bile duct.

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 empty with 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 free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Diffuse heterogenous Liver –** 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.

- **Liver nodule –** Differentials for a discrete liver nodule include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, myelolipoma etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.

- Gallbladder mucocele

- **Bilateral adrenomegaly –** consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism. The left adrenal gland appears more rounded and slightly more heterogenous than the right, so a primary adrenal mass adenoma cannot be definitively ruled out.

SECONDARY FINDINGS

- **Hyperechoic splenic nodules –** most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.

- Urinary bladder debris
- Non-obstructive, small nephroliths bilaterally

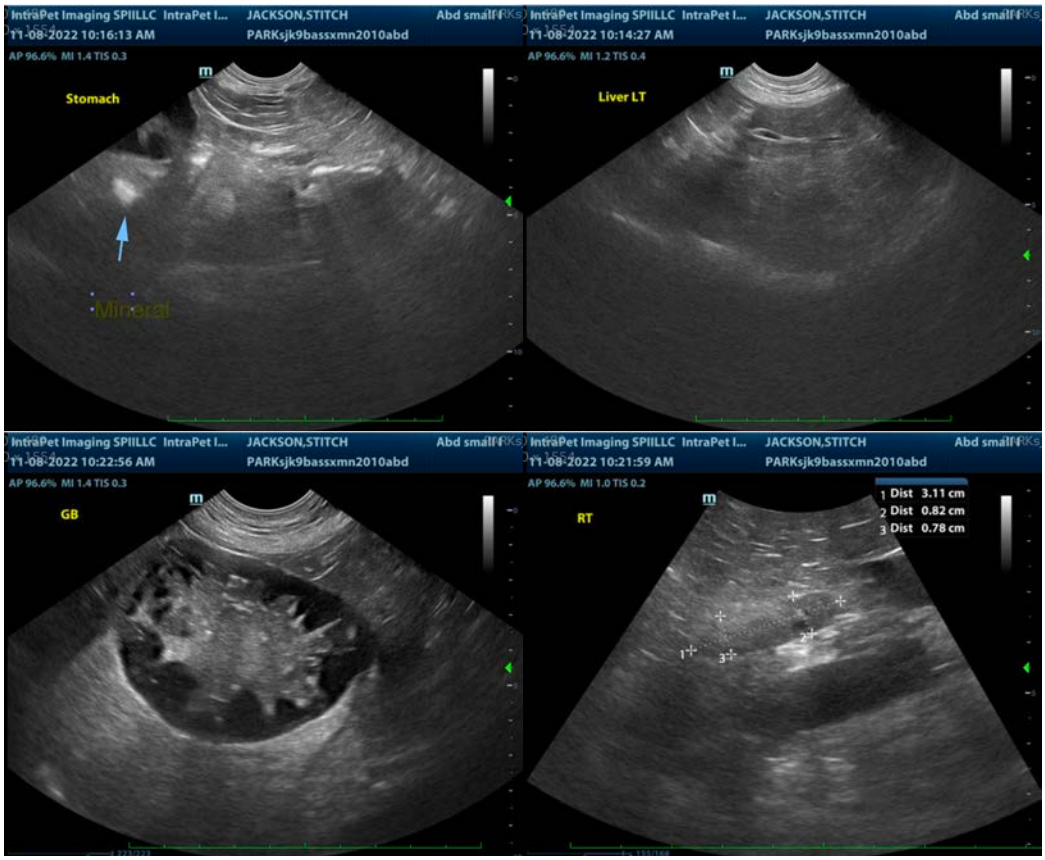
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

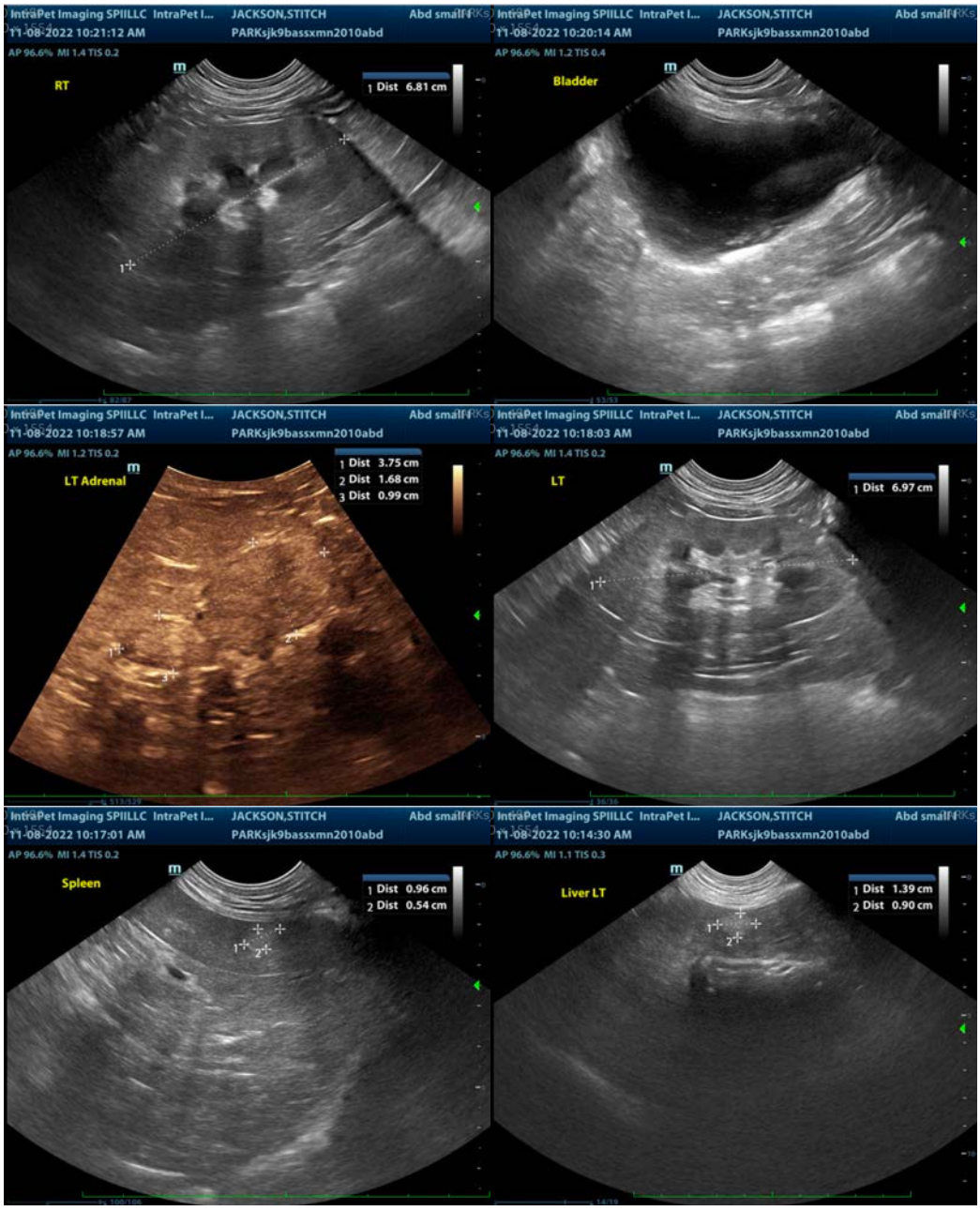
Recommendations are partially dependent on clinical signs and physical exam findings, etc. Regardless of presenting complain, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended, if not recently evaluated.

Additionally, testing for Leptospirosis is warranted, given the combined liver and kidney changes.

If clinical signs of hyperadrenocorticism are present, including PU/PD, polyphagia, etc., testing in the form of a low-dose Dexamethasone suppression test is warranted. However, workup and treatment of hyperadrenocorticism is typically not indicated with lack of clinical signs.

Similarly, if this patient has clinical signs and/or physical exam changes consistent with a gallbladder mucocele, i.e,. decreased appetite, vomiting, abdominal pain, etc., a surgical cholecystectomy is recommended. However, if this is an incidental finding, empirical medical management could be tried in the form of Ursodiol +/- broad-spectrum antibiotics with education/understanding of the risks of a mucocele managed medically.

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AP 96.6% MI 1.4 TIS 0.2
RT
1 Dist 6.81 cm
IntraPet Imaging SPIILLC IntraPet I... JACKSON,STITCH Abd small
11-08-2022 10:20:14 AM PARKsjk9bassxmn2010abd
AP 96.6% MI 1.2 TIS 0.4
Bladder
IntraPet Imaging SPIILLC IntraPet I... JACKSON,STITCH Abd small
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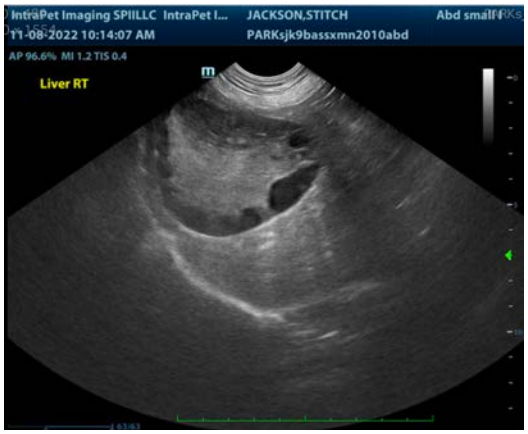
AP 96.6% MI 1.2 TIS 0.2
LT Adrenal
1 Dist 3.75 cm
2 Dist 1.68 cm
3 Dist 0.99 cm
IntraPet Imaging SPIILLC IntraPet I... JACKSON,STITCH Abd small
11-08-2022 10:18:03 AM PARKsjk9bassxmn2010abd
AP 96.6% MI 1.4 TIS 0.2
LT
1 Dist 6.97 cm
IntraPet Imaging SPIILLC IntraPet I... JACKSON,STITCH Abd small
11-08-2022 10:17:01 AM PARKsjk9bassxmn2010abd
AP 96.6% MI 1.4 TIS 0.2
Spleen
1 Dist 0.96 cm
2 Dist 0.54 cm
IntraPet Imaging SPIILLC IntraPet I... JACKSON,STITCH Abd small
11-08-2022 10:14:30 AM PARKsjk9bassxmn2010abd
AP 96.6% MI 1.1 TIS 0.3
Liver LT
1 Dist 1.39 cm
2 Dist 0.90 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.

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