IMAGING PERFORMED BY

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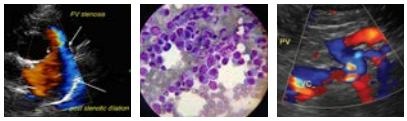

SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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DATE

9/27/22

PATIENT

Shasta Tate

SPECIES

Canine

BREED

Labrador X

SEX

Spayed Female

AGE

8/15/12

WEIGHT

49 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Nacke-Horney

INVOICE

41700

PRESENTING CLINICAL SIGNS

Around 6am jumped off the bed and vomited 3x - was more restless and going to the door to go out excessively - continued to vomit throughout the morning and was drooling more First bowel movement outside was normal but then went from soft to jelly like Owner noted was seen to turn her head to the side or occasionally shake her head Owner noted that they saw her urinate dark red blood Has been excessively panting No lepto vaccine - owner expressed concerns for potential lepto exposure Noted county places rat poison outside the yard Has been drinking and eating but need to be encouraged - owner noted offer hamburger and rice this AM

Current Medications: Unasyn, Buprenorphine, Vitamin B, Potassium Chloride, Protonix, Cerenia.
Lab Results: See attached.
Radiographs: Hepatomegaly.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: IV Ace.
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 right kidney is normal in size (5.98 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 (6.07 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 (2.31 cm long x 0.92 cm at the cranial pole and 0.58 cm at the caudal pole), shape and contour. A hyperechoic nodule is noted in the cranial pole. Nodule does not disrupt normal shape and/or architecture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (2.5 cm long x 0.58 cm at the cranial pole and 0.61 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

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mottled by multifocal discrete hypoechoic nodules of varying sizes “moth-eaten”. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. 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 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 area of the pancreas contains irregular hyperechoic pancreatic remodeling.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

Portal lymph nodes are enlarged with swollen irregular capsular contour and loss of normal length to width ratio (rounded in shape). Nodes are hypoechoic with loss of normal parenchymal detail.

PRIMARY FINDINGS

- **Nodular Liver -** This finding is concerning for infiltrative disease such as round cell neoplasia or metastatic neoplasia. Benign disease (nodular hyperplasia) cannot be ruled out but is considered less likely.

- **Aggressive portal lymph nodes –** most consistent with infiltrative round cell or metastatic neoplasia. A benign aggressive inflammatory response cannot be ruled out without tissue sampling +/- culture.

- **Gallbladder debris -** 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.

- **Hyperechoic pancreas –** This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.

SECONDARY FINDINGS

- **Hyperechoic nodule cranial pole right adrenal gland –** Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without

other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.

- **Urinary bladder debris –** consistent with the reported hematuria.

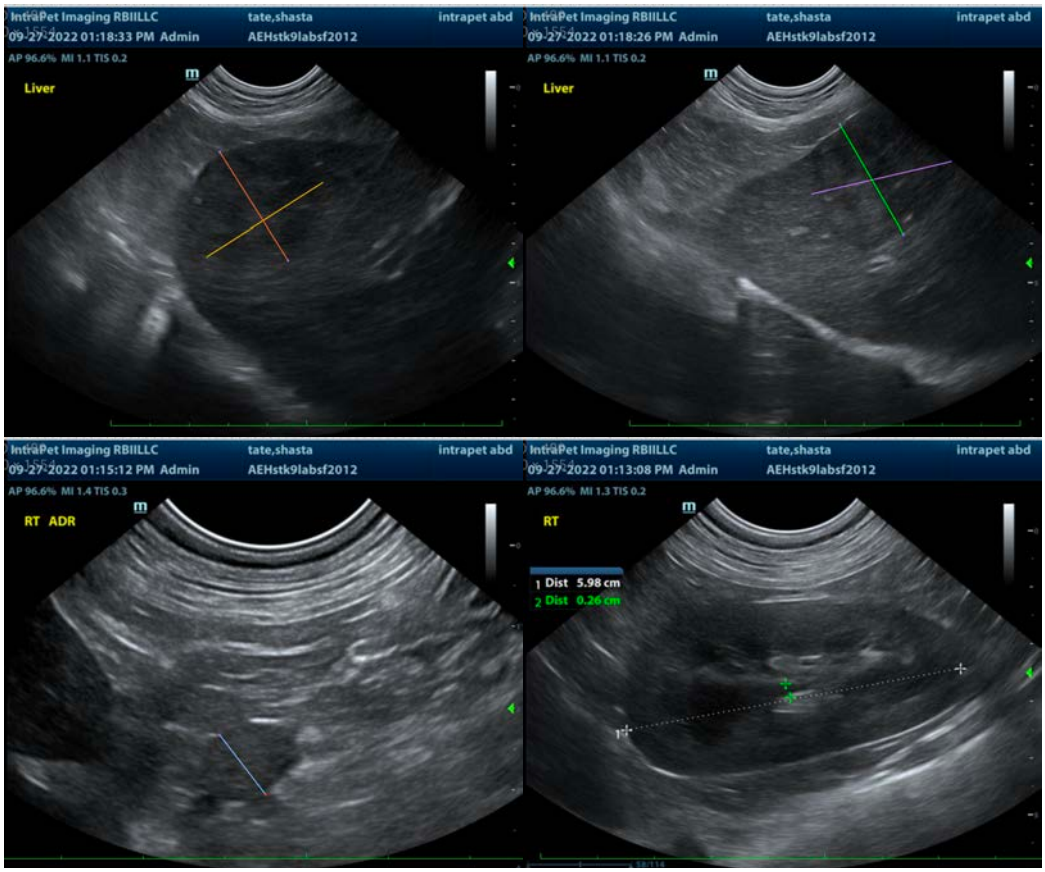
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

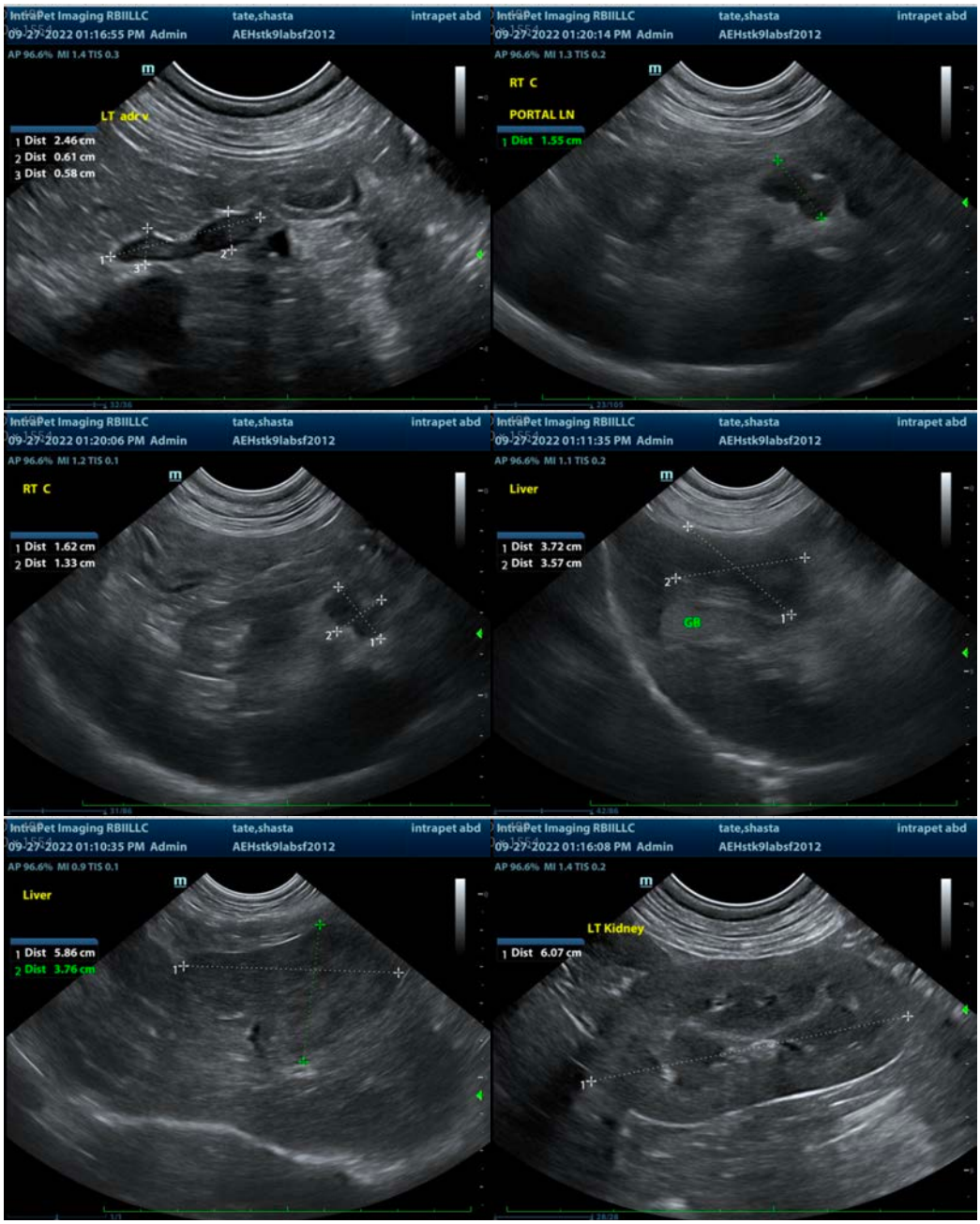
A urine culture is recommended if not recently evaluated.

Fine needle aspirates of the liver nodules +/- the portal nodes (if they are able to be safely reached and patient's coagulation status is appropriate) are recommended.

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

In the meantime, supportive/symptomatic medical support, as is reportedly in place, in the form of fluid therapy, antiemetics, gastroprotectants, hepatic nutraceuticals, and broad-spectrum antibiotics +/- pain management, if indicated, is recommended while awaiting cytology, etc. results.

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intrapet abd
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AEHstk9labsf2012
AP 96.6% MI 1.4 TIS 0.3
LT adrv
1 Dist 2.46 cm
2 Dist 0.61 cm
3 Dist 0.58 cm
IntraPet Imaging RBIILLC
tate,shasta
intrapet abd
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AEHstk9labsf2012
AP 96.6% MI 1.3 TIS 0.2
RT C
PORTAL LN
1 Dist 1.55 cm
IntraPet Imaging RBIILLC
tate,shasta
intrapet abd
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RT C
1 Dist 1.62 cm
2 Dist 1.33 cm
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intrapet abd
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AP 96.6% MI 1.1 TIS 0.2
Liver
1 Dist 3.72 cm
2 Dist 3.57 cm
GB
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intrapet abd
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AP 96.6% MI 0.9 TIS 0.1
Liver
1 Dist 5.86 cm
2 Dist 3.76 cm
IntraPet Imaging RBIILLC
tate,shasta
intrapet abd
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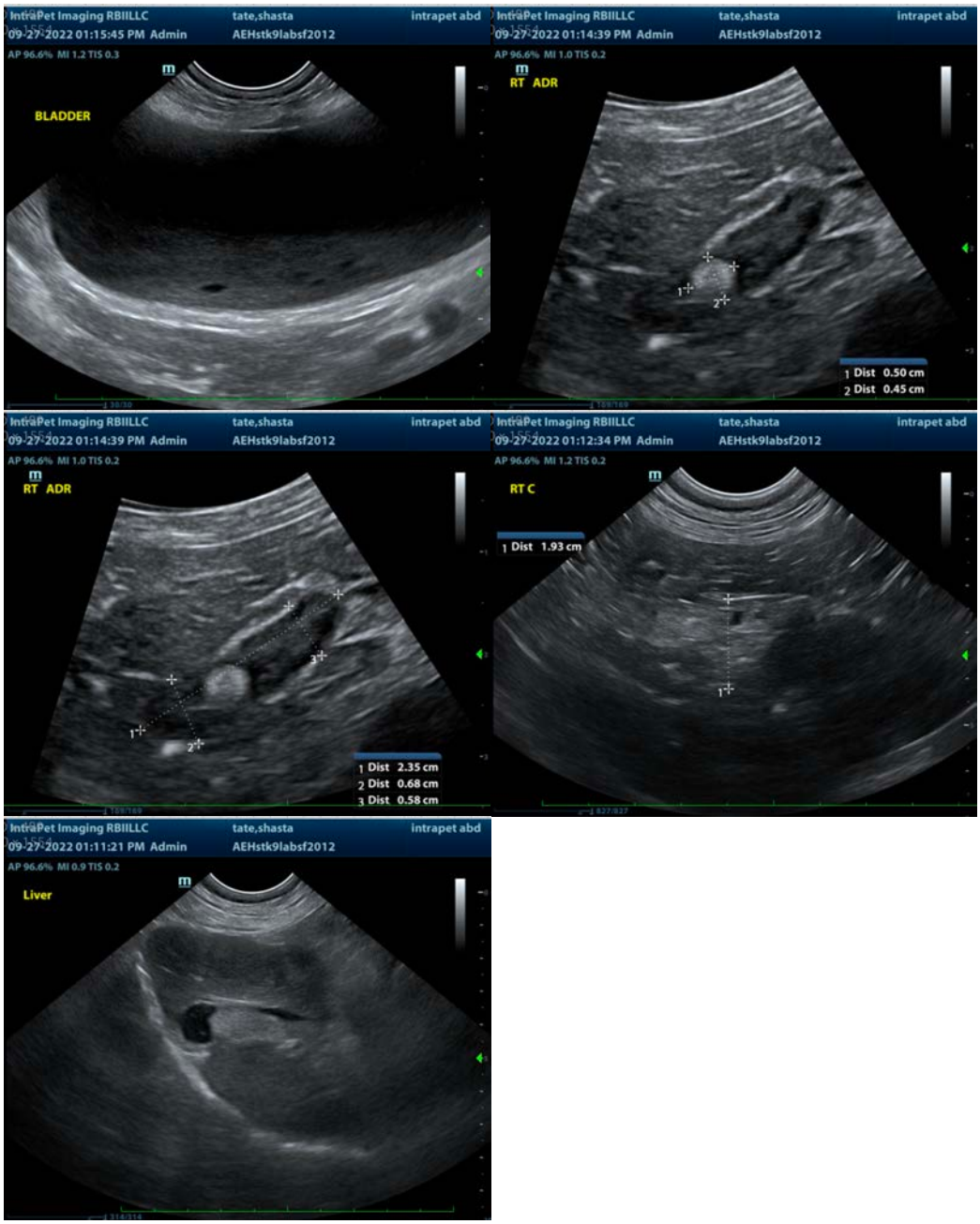
AEHstk9labsf2012
AP 96.6% MI 1.4 TIS 0.2
LT Kidney
1 Dist 6.07 cm



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.

Beth Johnson, DVM, DACVIM
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