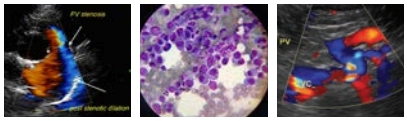
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

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DATE

11/3/22

PATIENT

Cale Spurrier

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

4/25/08

WEIGHT

16.9 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Abbey Animal Hosptial

REFERRING VET

Dr. Kluttz

INVOICE

42545

PRESENTING CLINICAL SIGNS

History of diabetes, well managed. On routine exam could feel suspected hepatomegaly. On bloodwork liver WNL but has renal failure.

Current Medications: Glargine 5 units BID.
Lab Results: BUN-53, CREA -2.5, AMYL -1216
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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of mineral or infarcts observed. Pyelectasia noted in both kidneys The right kidney measures 3.55 cm. The left kidney measures 3.49 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.53 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.54 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with a mildly swollen but smooth capsule. Parenchyma is normal and homogenous in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. Several nodules of mixed echogenicity, primarily hyperechoic in echogenicity but containing multiple cysts of varying size, are noted. The most prominent nodule measures 2.0 cm in diameter in the deep right liver. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

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 intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

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

Pancreas

Pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and has a mildly irregular undulating contour. Parenchyma is coarse with mixed echogenic remodeling noted. Pancreatic duct dilation is noted.

Free Abdomen

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

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

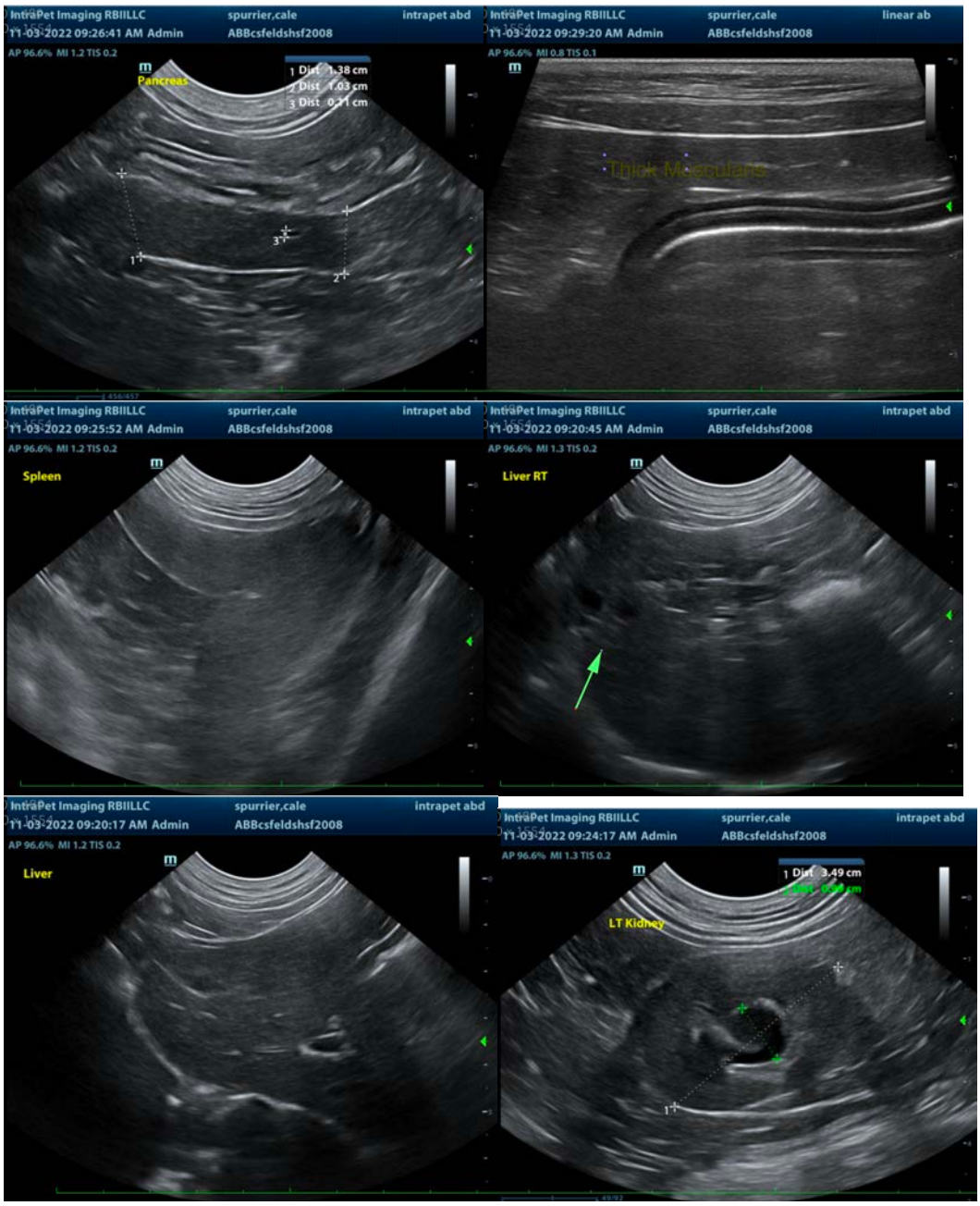
- **Bilateral pyelectasia –** Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Chronic active pancreatitis
- **Inflammatory bowel disease (IBD) pattern –** Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.
- **Hypersplenism –** can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, amyloidosis well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- **Hyperechoic hepatomegaly** – This appearance is most consistent with benign hepatic lipidosis. Infiltrative disease such as amyloidosis or round cell neoplasia, such as mast cell tumor or less likely, lymphoma, is also possible.
- **Feline biliary cystadenoma –** In a senior cat, this liver lesion is most consistent with a/multiple benign biliary cystadenoma(s). Malignancy cannot be ruled out but is considered less likely give lack of clinical signs and/or laboratory changes.

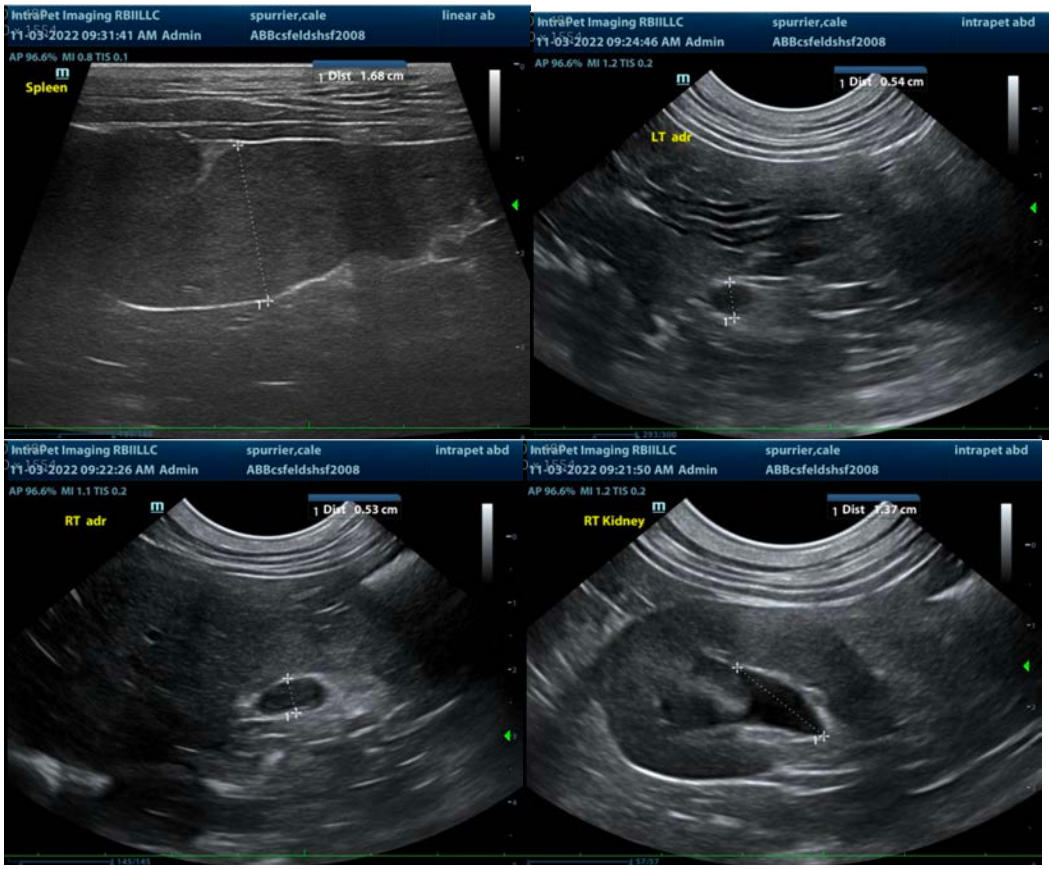
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's history of diabetes, acute azotemia, and the kidney pathology described above, ruling out urinary tract infection/even pyelonephritis is recommended. 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.

The pancreatic and bowel changes are likely chronic and potentially somewhat age related. However, if gastrointestinal signs are present, including weight loss that can't be attributed to the diabetes, vomiting,

diarrhea, etc., 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.

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spurrier,cale
ABBcsfeldshsf2008
linear ab
AP 96.6% MI 0.8 TIS 0.1
Spleen
1 Dist 1.68 cm
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spurrier,cale
ABBcsfeldshsf2008
intrapet abd
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LT adr
1 Dist 0.54 cm
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spurrier,cale
ABBcsfeldshsf2008
intrapet abd
AP 96.6% MI 1.1 TIS 0.2
RT adr
1 Dist 0.53 cm
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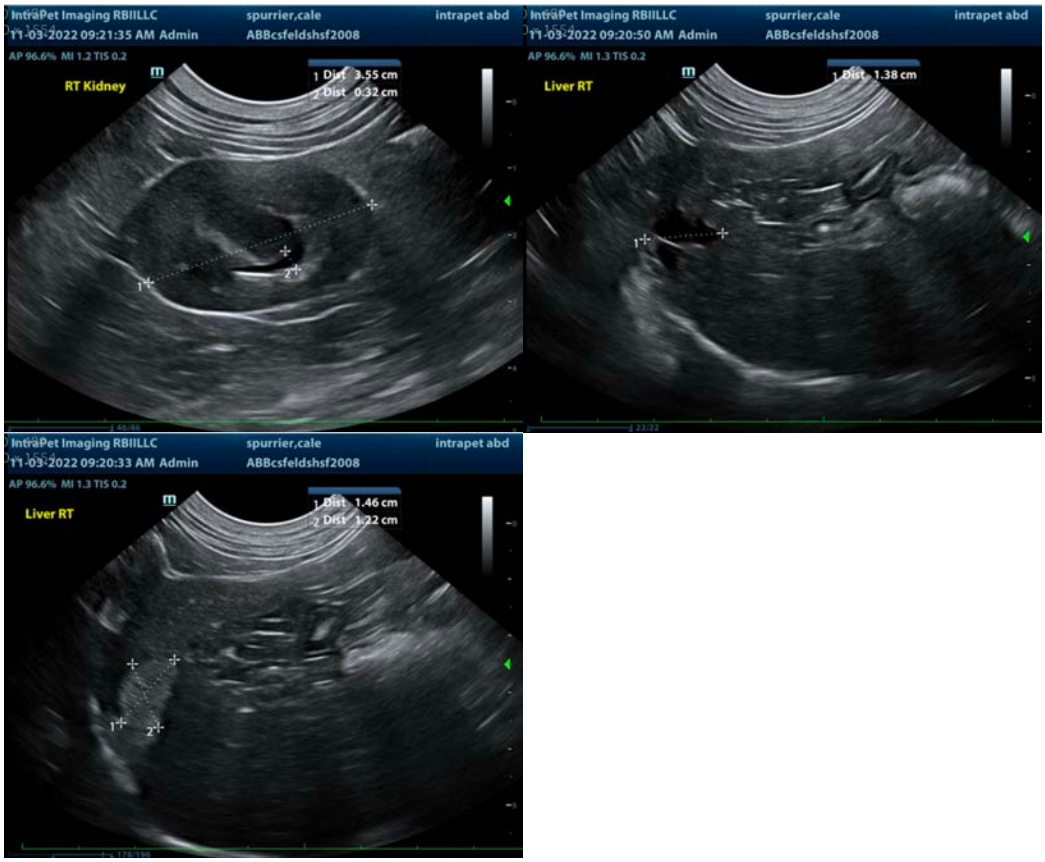
spurrier,cale
ABBcsfeldshsf2008
intrapet abd
AP 96.6% MI 1.2 TIS 0.2
RT Kidney
1 Dist 1.37 cm



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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