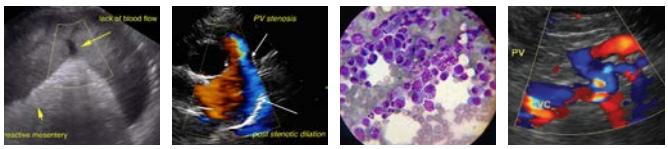
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

**PATIENT**
Sally Buckley

**SPECIES**
Feline

**BREED**
DSH

**SEX**
Spayed Female

**AGE**
16 Years

**WEIGHT**
8.6 Pounds

**INTERPRETED BY**
Beth Johnson, DVM DACVIM

**IMAGING PERFORMED BY**
Shari Reffi, CVT

**HOSPITAL NAME**
Newton Vet Hospital

**REFERRING VET**
Dr. Kim

**INVOICE**
42524

**DATE**
11/3/22

## PRESENTING CLINICAL SIGNS

Anorexia, weight loss, on and off diarrhea, occasional vomiting. R/O Mid-abdominal mass vs other. No current meds.

Abnormal PE/Chem/CBC/UA Results: HCT 27%, Glucose 181, U/A-cysto pending

## 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.

Both kidneys are normal in size with relatively normal smooth peripheral margination and shape maintained. However, both kidneys have decreased corticomedullary distinction and slight loss of internal architecture. Both kidneys exhibit pyelectasia and perirenal hyperechoic enhanced mesenteric fat, more noticeable on the right than the left. On the right side, there is a very extremely subtly hypoechoic subcapsular rim or “halo sign” around the kidney. The right kidney measured 3.57 cm. The left kidney measures 3.21 cm.

### *Adrenal Glands*

The area of the right adrenal gland is examined without evident pathology.

The left adrenal gland is normal in size (0.45 cm), 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*

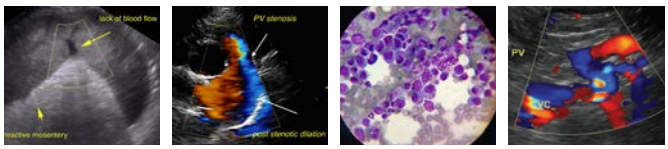
The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal 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 very mildly 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.



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

### *Pancreas*

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Pancreatic duct dilation is noted. Enhanced hyperechoic ill-defined surrounding fat 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 and enhanced mesenteric fat around both kidneys** – Suggestive of an acute inflammatory process, as can be seen with pyelonephritis.
- **Very faint hypoechoic subcapsular rim around the right kidney** – This can occur with pyelonephritis. However, it is also concerning for infiltrative disease such as lymphoma. It is atypical with either of these diseases that the kidneys are not increased in size.
- **Very mild 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.
- Mild acute pancreatitis

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pathologic changes described above are all extremely subtle/mottled, and relatively non-specific. The primary lesion localization is around the kidneys. Therefore, recommendations include a urine culture if not recently evaluated, potentially a culture of urine obtained from the renal pelvic directly via pyelocentesis, and/or follow up empirical management for possible/suspect pyelonephritis.

Additionally, a fine needle aspirate of the kidney parenchyma (right more severely than the left) could be considered if patient's coagulation status is appropriate. Prior to more invasive tests, however, given this patient's gastrointestinal signs, 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, as well as T4/free T4.

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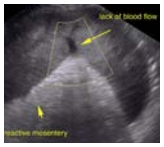
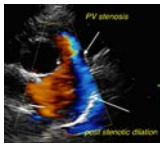
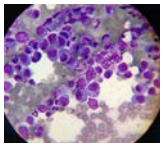
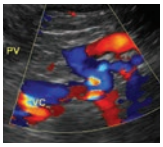

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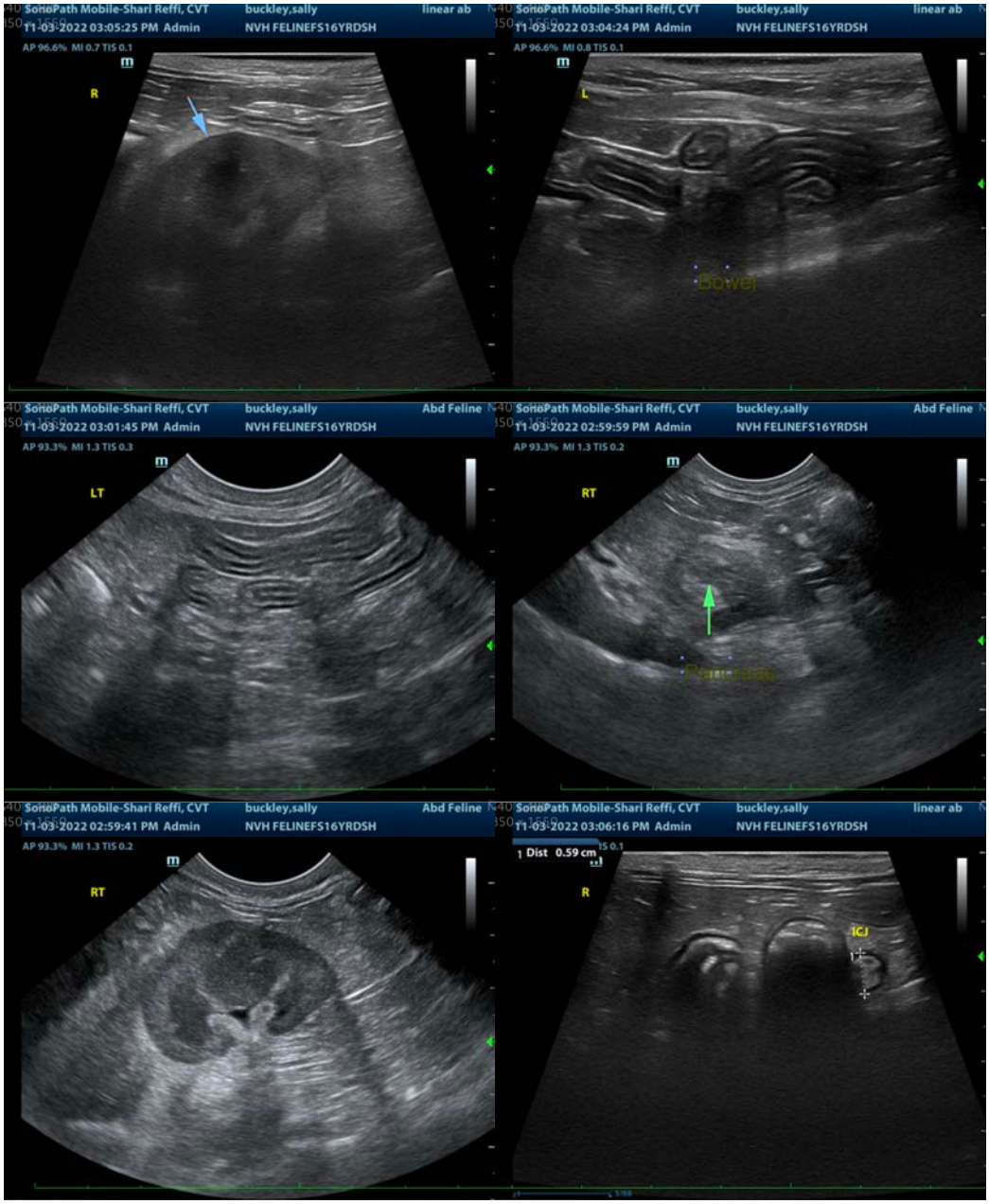

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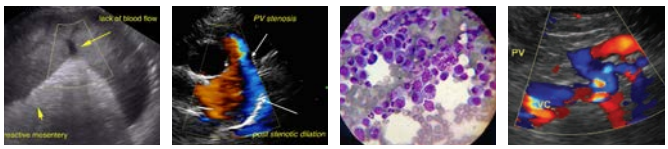

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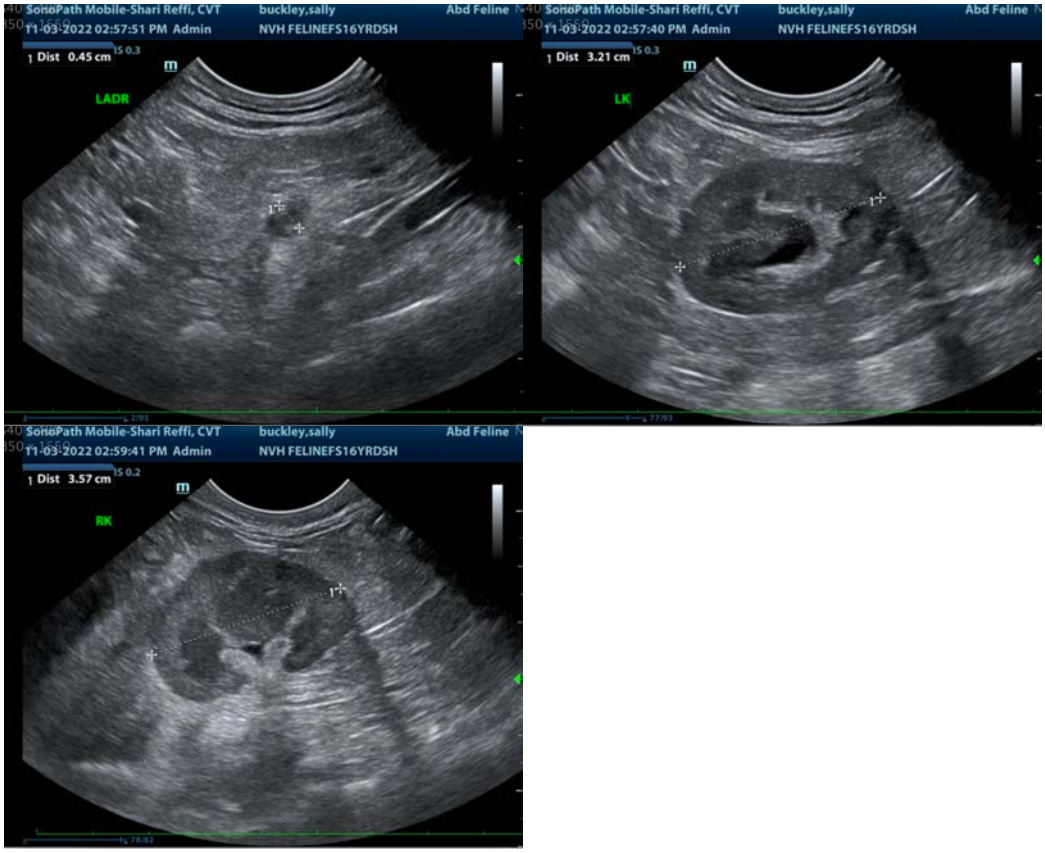


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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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
Beth.Johnson@sonopath.com