

**DATE PRESENTING CLINICAL SIGNS**

2/27/23 History: Inappropriate urination - responsive to antimicrobials but urine culture and MIC NEG.

PATIENT

Lori Hronek

Current Medications: None listed.

Lab Results: Labs 1 year ago WNL. New labs pending (pet needs to be sedated to acquire)

Date of Previous IntraPet Ultrasound: No previous.

Sedation: IM: Kitty Magic 0.9 ml x 3.

SPECIES

Feline

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include some anechoic fluid, combined with a very large amount of echogenic non-shadowing debris, most consistent with exfoliated cells, mucus and/or small blood clots. No masses or discrete cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

AGE

2/28/11

The left kidney is 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 pyelectasia, mineral or infarcts observed. The left kidney measures 4.07 cm.

WEIGHT

9.1 Pounds

Right kidney is small in size (1.55 cm long), with complete loss of normal architecture, loss of corticomedullary distinction and very poor to no vascularity visible. A small mineral foci consistent with a nephrolith is noted within the center of the structure that appears to be residual right kidney.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Adrenal Glands

Left adrenal gland is normal in size (0.49 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.53 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

HOSPITAL NAME

Bay Country VH

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). No focal nodules or masses are observed. Splenic vasculature appears normal.

REFERRING VET

Dr. Bauer

Liver

Liver is subjectively enlarged (swollen contour). Mild parenchymal remodeling with diffusely mildly coarse architecture and increased portal markings is present. No focal nodules or masses are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

21312

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. The cystic and common bile duct are the upper ends of normal limit for dilation, measuring 0.33 cm dilated, and can be followed at the dilation, all the way to the duodenal papilla without any visible intraluminal contents, mineral debris, nodules, etc. The ducts are tortuous in appearance.

Gastrointestinal

The visible stomach wall is normal in thickness 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. 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 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 peritoneal effusion. The sublumbar lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

ULTRASONOGRAPHIC FINDINGS

- Chronic kidney disease, resulting in a lack of any normal kidney architecture on the right kidney, and a compensatorily more normal appearing kidney on the left.
- A very large amount of urinary bladder debris
- Hypoechoic hepatomegaly-This appearance is consistent with an acute hepatopathy or acute cholangiohepatitis. Infiltrative neoplasia (round cell neoplasia) should also be considered.
- A tortuous cystic and common bile duct. This can be a normal anatomic variant in a senior cat or could represent chronic or resolved cholangitis. An acute process can't be ruled out, and this finding should be interpreted in combination with clinical signs, and/or laboratory changes that suggest an acute process.
- Chronic active pancreatitis
- Reactive sublumbar lymph nodes - infiltrative neoplastic disease cannot be ruled out but is considered less likely.

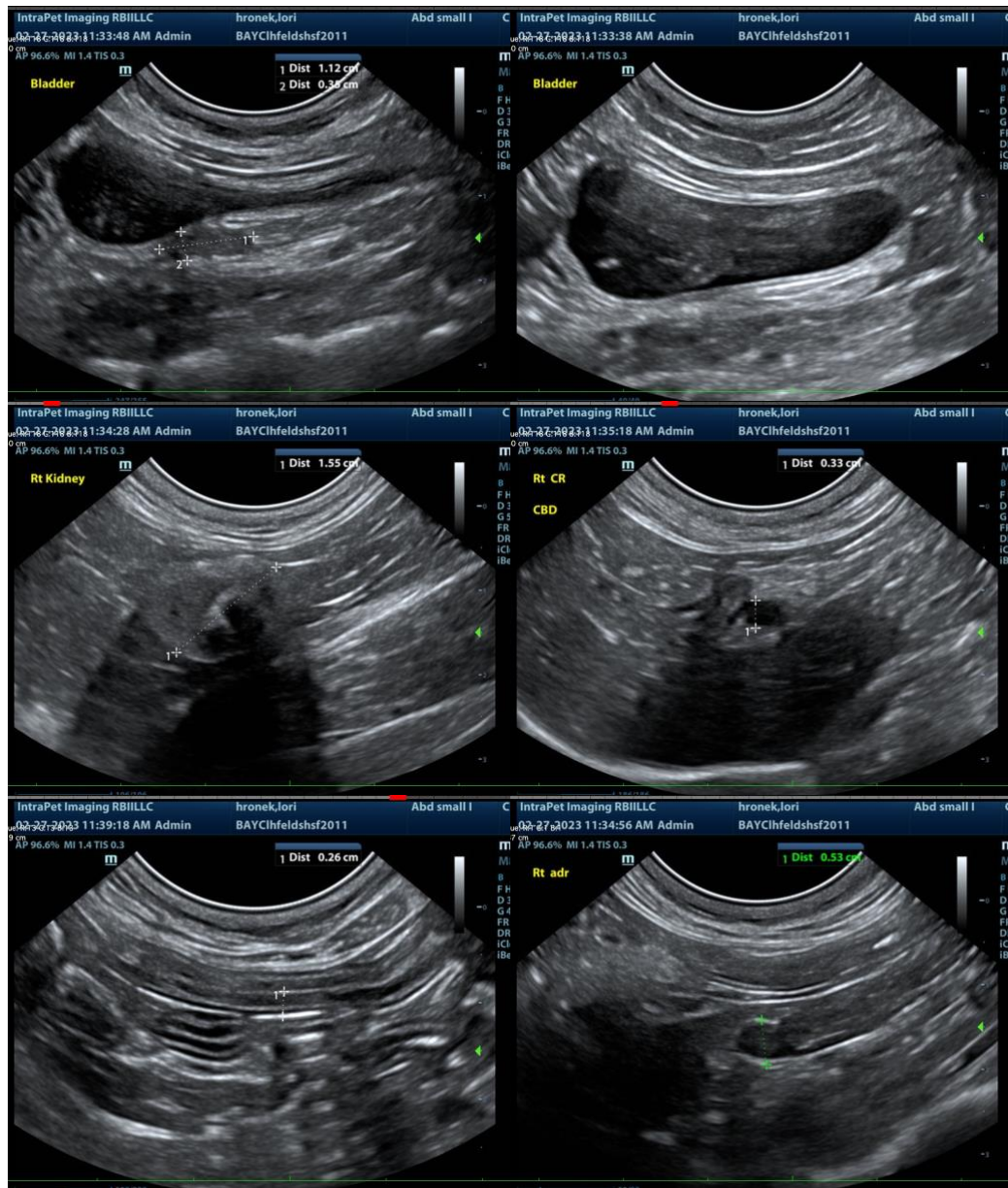
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

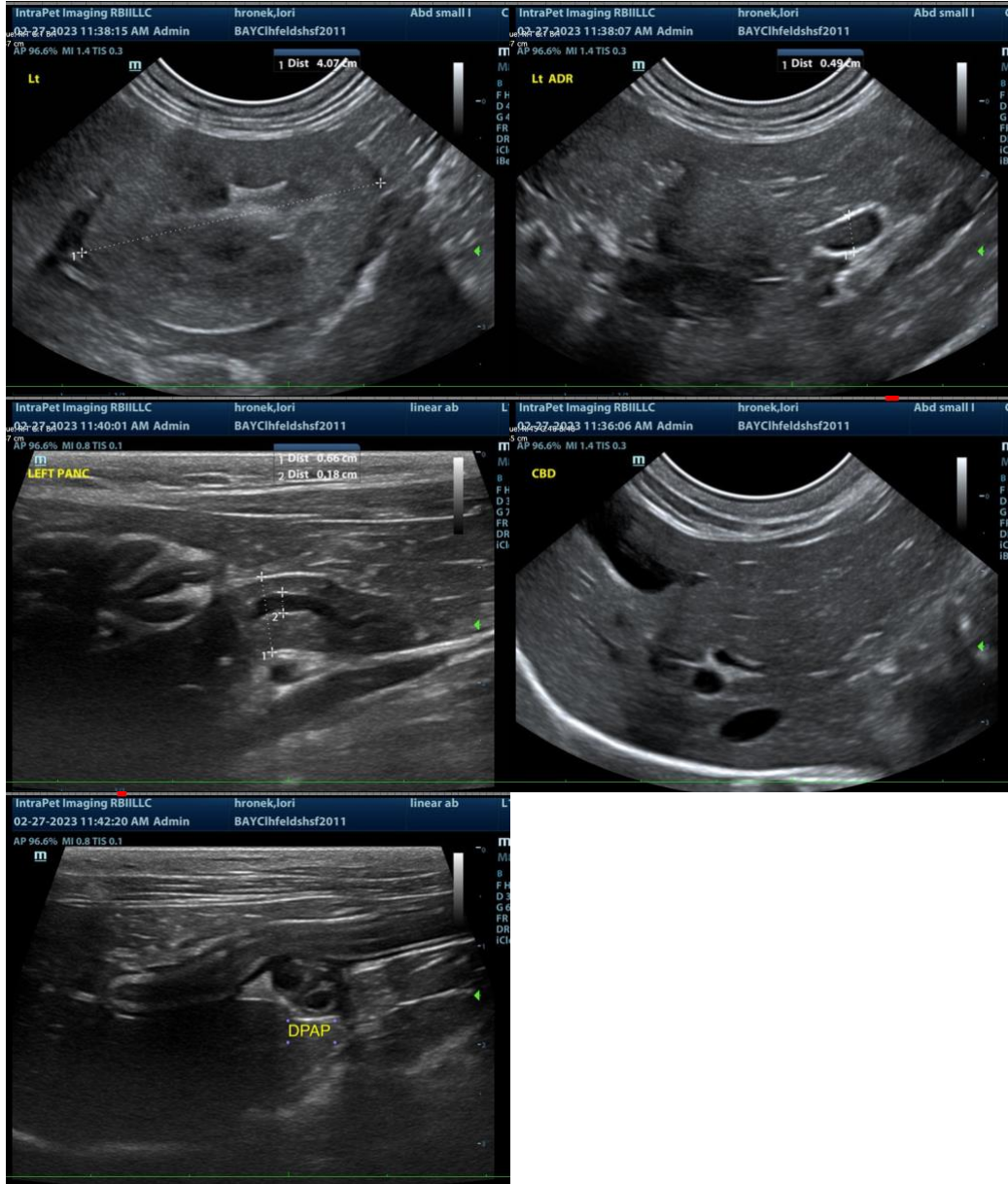
As is reportedly already pending, a general metabolic health screen is recommended, in the form of a CBC/chemistry panel, electrolytes, urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Both the appearance of the urinary bladder debris, combined with this patients reported improvement with antibiotic therapy, suggests a true urinary tract infection vs just FLUTD, and it's possible that the previous culture was a false negative result. Recommendations include a recheck culture, being sure that there have

been no antibiotics administered for 7-10- days prior to the culture to prevent a false negative.

Otherwise, in the face of negative urine culture(s) and no cystoliths, masses, etc., these urinary signs are most consistent with sterile cystitis or feline lower urinary tract disease (FLUTD). Recommendations include maximizing water consumption (water fountains, canned food, etc) as well as reducing stress (recommendations can be found at Indoor Cat Initiative out of The Ohio State University CVM). Transition to a urinary health diet such as Royal Canin Urinary SO (or similar) could also be considered.





The information and recommendations provided are based on the images presented by the referring veterinarian. 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

