

**PATIENT**

Bud Kelley

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

5 years

**WEIGHT**

12 lbs

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Amy Mayhew LVT

**HOSPITAL NAME**

SVS Imaging Michigan

**REFERRING VET**

Mitten AH

**INVOICE**

11951

**DATE**

12.27.22

**PRESENTING CLINICAL SIGNS**

History: Recent history of inappropriate urinations and overgrooming on ventral abdomen. Patient originally presented on 10/13/2022 after two episodes of urinating under the owner's bed. At that time patient also had miliary dermatitis along dorsum and around neck. A urine sample was unable to be collected at the appointment. Patient was treated with Revolution and a Convenia injection. Patient represented on 12/03/2022 for ongoing inappropriate urinations, increased vocalizations and PU/PD. Bloodwork, urinalysis, urine culture and abdominal radiographs were obtained at that time.

Abnormal PE/Chem/CBC/UA Results: Bloodwork on 12/03/2022 revealed: - Mild thrombocytopenia - r/o artifact vs other. Scanning of the blood film revealed adequate platelet numbers. Due to clumping, the automated platelet number cannot be accurately determined. - Mild renal azotemia - SDMA 16, Creatinine 2.3, BUN 42, USG 1.030 - r/o CRF, neoplasia, pyelonephritis, other - Mild hypochloremia - r/o renal loss, GI loss, other - UA: USG 1.030, pH 6.0, 30 proteinuria, no other significant changes on Sedivue in-house though UA to Idexx revealed 20-30 RBC / hpf so unable to add on UPC. - Urine culture on 12/03/2022 showed no growth. - Abdominal Radiographic Conclusions from 12/03/2022: 1. Mild diffuse small intestinal distention. There is the impression of thickening of some of the small intestinal walls although this may be artifactual. Differentials include infiltrative bowel disease (i.e. neoplasia, inflammatory bowel disease) or enteritis. 2. Splenomegaly. Differentials include congestion (potentially secondary to sedation, if administered), hyperplasia, extramedullary hematopoiesis, neoplasia, or infectious splenitis. 3. Mild cardiomegaly. Correlate with proBNP testing and the presence of a heart murmur. Echocardiography may be considered for additional assessment. 4. The material within the stomach is presumed to represent partially digested food material.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 1-2 cm, are normal.

The left kidney is normal size (3.81 cm in length) with a normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is poor corticomedullary distinction. The cortex is hyperechoic. A hyperechoic medullary rim is observed adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal size (4.15 cm in length) with a normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is poor corticomedullary distinction. The cortex is hyperechoic. A hyperechoic medullary rim is observed adjacent to the corticomedullary junction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

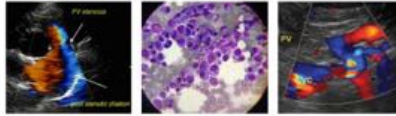
**Adrenal Glands**

The left adrenal gland is normal size (0.46 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.41 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal to slightly prominent in size (0.96 cm in width at the level of the hilus) with normal curvilinear peripheral contours. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

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**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

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The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal.

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**Gastrointestinal**

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal to moderately thickened (up to 0.62 cm) with a normal layering pattern and appropriate mural detail. There is disruption in the normal 1:3 muscularis: mucosal ratio in several segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

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**Pancreas**

The left limb is visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat. No focal lesions are observed. The pancreatic duct is visible but not overtly dilated (0.21 cm in diameter).

**WEIGHT**

12 lbs

**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A 0.64 cm lymph node is observed in the left cranial quadrant.

**ULTRASONOGRAPHIC FINDINGS****INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Amy Mayhew LVT

**HOSPITAL NAME**

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**Primary Findings**

- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis.
- Bowel pattern consistent with inflammatory bowel disease with some potential for emerging lymphoma.

**Secondary Findings**

- The pancreatic changes may be a normal variant for this patient or could be consistent with mild, chronic pancreatitis. Correlation with clinical findings is recommended.

\*The patient's clinical signs are likely due to underlying renal disease. Occult pyelonephritis is also a possibility.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Given the patient's clinical history and sonographic changes, consider the following:

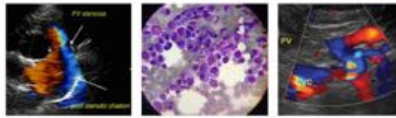
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1. UPC
2. Baseline blood pressure measurement
3. Transition to a prescription renal diet (if the patient will tolerate it)
4. Empirical treatment for occult pyelonephritis (i.e., fluoroquinolone) can be considered. However, if the patient's clinical signs do not begin to improve within 3-5 days of initiating therapy, antibiotics should be discontinued.

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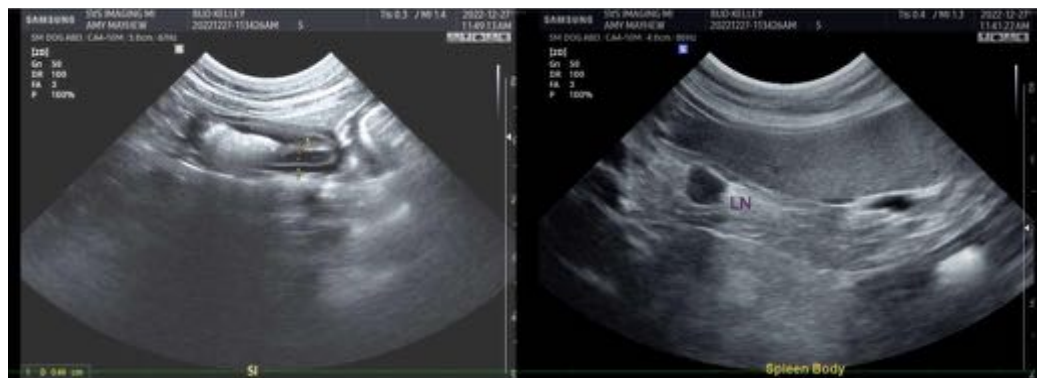
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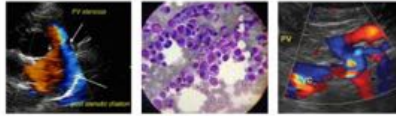
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
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