



**PATIENT**

Twerp Skillings

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

14 Years

**WEIGHT**

10.2 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Chrissy Krell, DVM

**HOSPITAL NAME**

Paws and Prairie AC

**REFERRING VET**

Chrissy Krell, DVM

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17292

**DATE**

9/13/22

**PRESENTING CLINICAL SIGNS**

History: Diabetic since January 2017, fairly well managed until last Thursday, owner observed loss of appetite and some lethargy. Recently treated for suspect UTI and intramural cystitis. Noted Mild abnormalities on BW on Friday, thickened bladder wall on a brief scan. UA not collected due to previous concerns with bladder wall mass last fall (which was not visualized, suspecting more polyploid changes with cystitis). O started Zeniquin, GI diet and Cerenia on Friday and continued through the weekend, no appetite but seemed interested in eating, drinking a lot. No insulin given over the weekend due to not eating. O feels she is still happy and doing "ok" other than not eating.

Abnormal PE/Chem/CBC/UA Results: 9/12 PE QAR, more tolerant of evaluation than on Friday. Temp 99.5F, noted mild upper respiratory congestion, tartar and mild gingivitis (limited exam). Chem: improved BUN 38 and Creat 1.3 (normal today), ALKP 168 , BG 468, Serum Ketone 2+. fPL abnormal 9/9 - Chem: BUN 52, Creat 3.1 (SDMA not ran), BG 390 (1 hour after 4.5 U of insulin given) CBC: mild anemia (suspect chronic disease), notable neutrophilia (35K), monocytosis (1.85K), neutrophilia confirmed on manual review.

**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 incidental suspended lipid in a cat, possibly combined 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.

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 pyelectasia, mineral or infarcts observed. The left kidney measures 3.72 cm. The right kidney measures 4.53 cm.

**Adrenal Glands**

Left adrenal gland is normal in size (0.44 cm at cranial pole and 0.38 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.44cm at cranial pole and 0.47 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**Spleen**

Spleen is subjectively large in size with subtly scalloped or undulating capsular contour. Parenchyma is normal in echogenicity with a mildly coarse/heterogenous 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. No focal



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lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

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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. A mildly tortuous but not pathological distended common bile duct was noted, which can be a normal age-variant in a cat.

**Gastrointestinal**

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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.

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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.

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The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

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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**

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A large amount of enhanced hyperechoic tissue was noted in the cranial abdomen, primarily on the left around the spleen and left limb of the pancreas. No appreciable free fluid or lymphadenopathy was noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

**IMAGING PERFORMED BY**

Chrissy Krell, DVM

**Primary Findings**

- Acute pancreatitis
- Scalloped spleen – can be associated with benign or malignant infiltrative disease. Common causes include a reactive spleen secondary to immune stimulus or early infiltrative round cell neoplasia such as lymphoma or mast cell tumor.
- 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.

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**Secondary Findings**

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- Urinary bladder debris
- Age-related kidney change

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Based on the finding described above, this patients clinical signs are believed to be due, at least in



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part, to pancreatitis. Concurrent ketoacidosis could also be contributing. There may also be a degree of hepatic lipidosis given the hyperechoic liver and reported inappetence. Therefore, recommendations include:

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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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Medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support (including a feeding tube) as needed, pain management, broad spectrum antibiotics, and fluid therapy is recommended.

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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.

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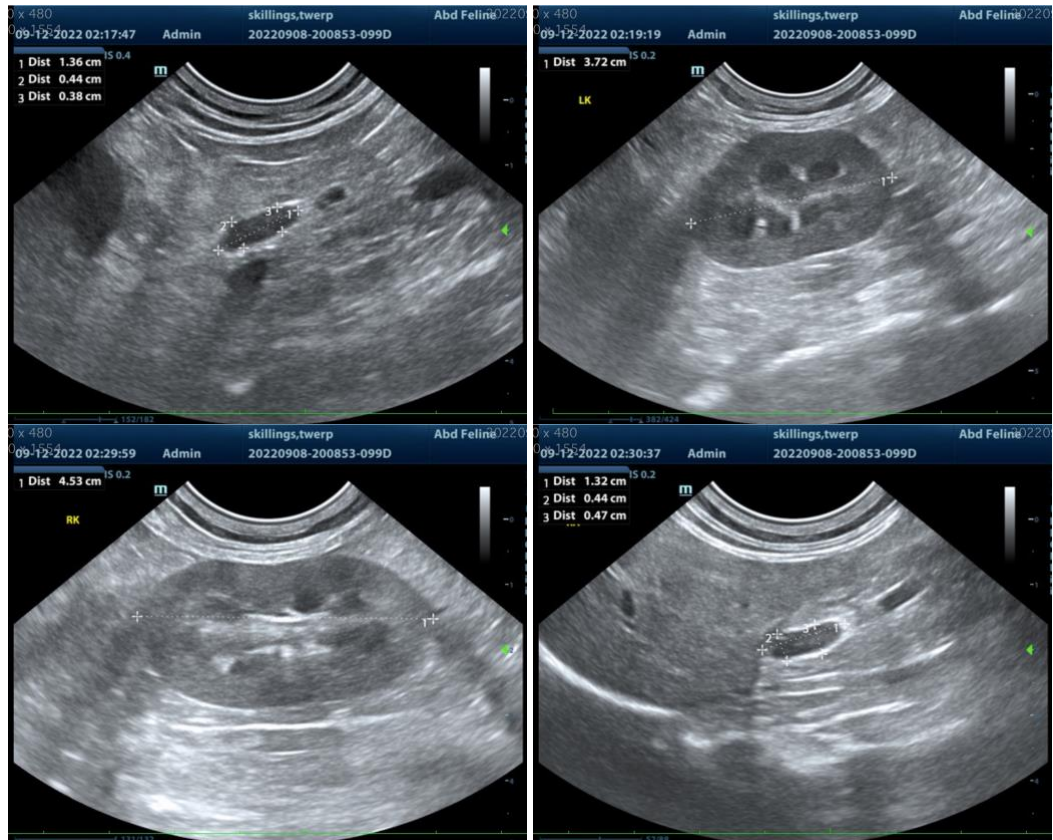
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**The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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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.

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Beth.Johnson@SonoPath.com

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