

**DATE PRESENTING CLINICAL SIGNS**

9/15/22 Presented for vomiting, decreased e/d. Returned drastically worse 1 day later, wobbly, fever, no eating, ad

PATIENT

Porkchop Cuadra

Current Medications: Convenia, mirtazapine, cerenia, buprenex inj
 Lab Results: Glucose 251, Creatinine 2.2, BUN 44, BUN: Creatinine Ratio 20, Phosphorus 5.0, Calcium 9.2, Total Protein 6.6, Albumin 2.5, Globulin 4.1, Albumin: Globulin Ratio 0.6, ALT 50, ALP 12, GGT 0, Bilirubin – Total 0.2, Cholesterol 126, Amylase 528, Lipase 806
 Radiographs: enlarged kidney.

SPECIES

Feline

Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Not requested.

BREED

DSH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

AGE

6/4/06

The left kidney is normal in size (4.32 cm) but irregular in shape, with pyelectasia at 0.25 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. The tissue surrounding the kidney is hyperechoic. is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

9.8 Pounds

The right kidney has a normal shape and size (4.7 cm) with pyelectasia at 0.62 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. This tissue surrounding the kidney is hyperechoic. Dilated proximal ureter noted measuring 0.31 cm in diameter. There is no evidence of nephroliths or infarcts. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
 MS, Diplomate ACVIM
 (Small Animal Internal
 Medicine)

Adrenal Glands

The left adrenal gland is normal in size measuring 0.46 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

IMAGING PERFORMED BY

Stephanie Warga
 RDCS, RVT

The right adrenal gland is normal in size measuring 0.49 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

HOSPITAL NAME

AC of Southgate

Spleen

The spleen is subjectively normal in size (0.88 cm in width at the level of the hilus), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

REFERRING VET

Dr. Alexander

Liver

The liver is subjectively normal in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. The visible portions of the vasculature and biliary tract appear normal. There is an ill-defined, hyperechoic nodule visualized within the parenchyma measuring 0.71 cm.

INVOICE

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The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. It measures at a normal thickness of <0.36cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layering is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measures 0.21 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is prominent and hypoechoic as compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. Prominent pancreatic duct noted measuring 0.15 cm.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Dependent echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia, right-sided ureteral dilation, and inflammation surrounding the kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. With the surrounding inflammation noted, concern is high for pyelonephritis.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Mildly hyperechoic liver with a small hyperechoic intraparenchymal nodule – Hepatic changes are non-specific and could be consistent with hepatic lipidosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy. This lesion may be in a difficult location to aspirate. Consider continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

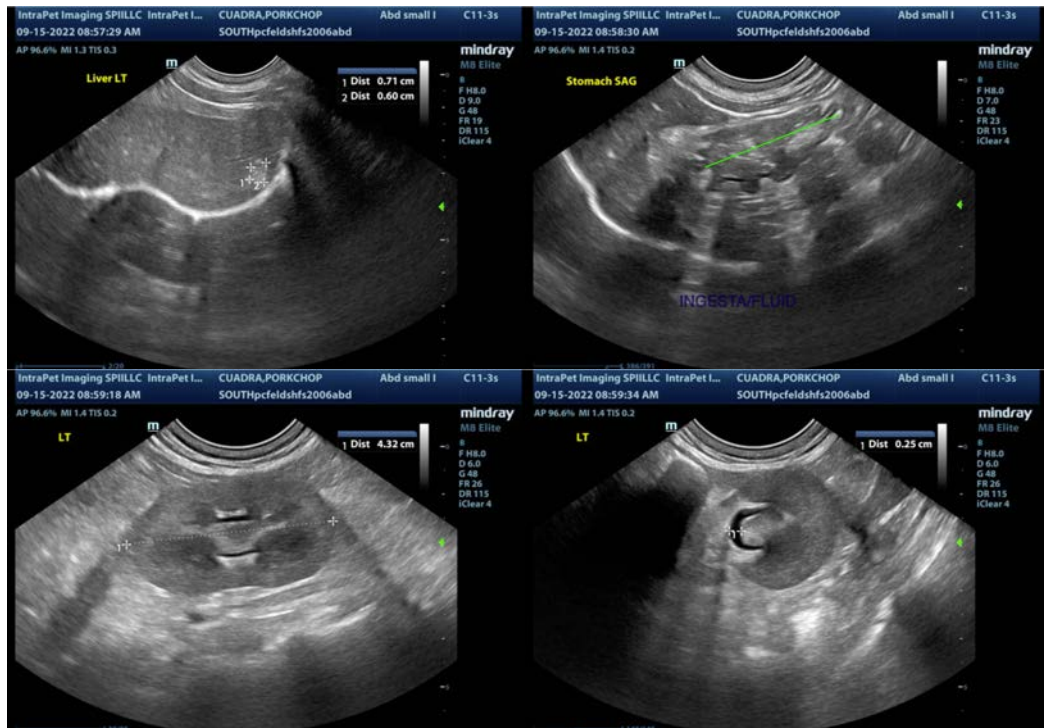
Both kidneys appear to have decreased corticomedullary distinction, possibly appear somewhat rounded(?), and are surrounded by hyperechoic mesentery. Additionally, there is pyelectasia and a dilated ureter on the right side. This combined with the echogenic dependent debris in the urinary bladder increases my concern for possible pyelonephritis. Recommend a urinalysis and culture, fluid therapy, and IV antibiotics if appropriate. If pyelonephritis is confirmed, then a prolonged course of antibiotics is recommended. Recommend concurrent probiotic therapy.

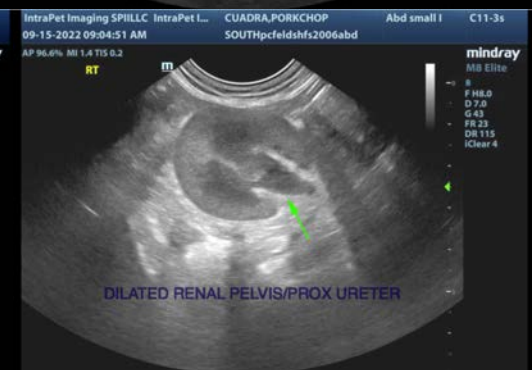
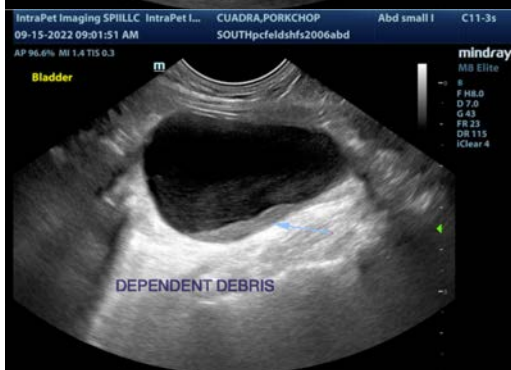
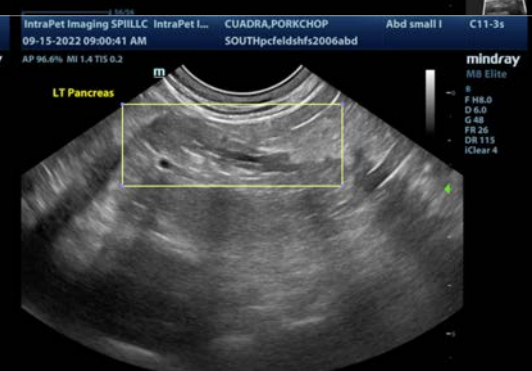
Additionally, the pancreas is somewhat prominent. This could represent mild current inflammation or previous episodes of pancreatic inflammation.

Recommend following the blood pressure to try and determine if that is a stress hyperglycemia or if this is an early diabetic. If persistent hyperglycemia is present, then consider starting insulin therapy with concurrent treatment for pyelonephritis and mild pancreatitis.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

Additionally, recommend evaluation of the abdominal radiographs to scrutinize for any evidence of mineralizations in the pathway of the ureters. No stones were visualized on today's exam.





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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)
kathleen.sennello@sonopath.com