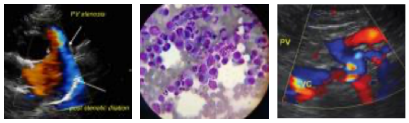
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
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DATE

6.30.2023

PATIENT

Keira Weber

SPECIES

Feline

BREED

DLH

SEX

Spayed Female

AGE

10/11/2011

WEIGHT

6.84 lbs

INTERPRETED BY

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

HOSPITAL NAME

Animal EH

REFERRING VET

Dr. Perez

INVOICE

13544

PRESENTING CLINICAL SIGNS

The owner reports that Keira was normal until Wednesday of this week. She last ate on Wednesday. Later that morning, she vomited food and then bile. No blood or coffee grounds in emesis. She vomited three times yesterday, just white foam. Saw the RDVM for bloodwork and received SQ fluids and Cerenia. No eating since Wednesday, no stool in at least 2 days. She has two other cats, but stool in the boxes have been normal. No possible ingestion of houseplants or floral arrangements; none in the home. Not one to get into the trash (bathroom, kitchen, or office). Not one to eat things including toys. She has been hiding, seems painful when belly is touched. She has a history of GI upset in the past, but often SQ fluids and Cerenia will fix it. Most recent bout was 9 months ago; had ultrasound then and all was normal. Radiocat I131 treatment done in 2018 - 2019.

Current Medications: None listed.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. 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 cystic calculi.

The left kidney has a normal shape and size (3.12 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.78 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.35 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.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect

Spleen

The spleen is subjectively normal in size (0.88 cm), 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.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder appears slightly hyperechoic and prominent (0.19 cm) with a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The proximal bile duct appears tortuous and prominent (0.43 cm). No evidence of an obstruction is visualized.

Gastrointestinal

The stomach contains minimal luminal contents. 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 layers 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured 0.35 mm in diameter and the jejunum measured 0.30 mm in diameter. 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with (mild/moderate or severe) pancreatitis.

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

Primary Findings

- Prominent hypoechoic pancreas with surrounding reactive mesentery - The pancreatic changes are most consistent with (mild/mod/severe) pancreatitis/pancreatic infiltration. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Prominent gallbladder with a large amount of nonorganized intraluminal debris, a mildly thickened gallbladder wall and mildly dilated/tortuous bile duct – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring. Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

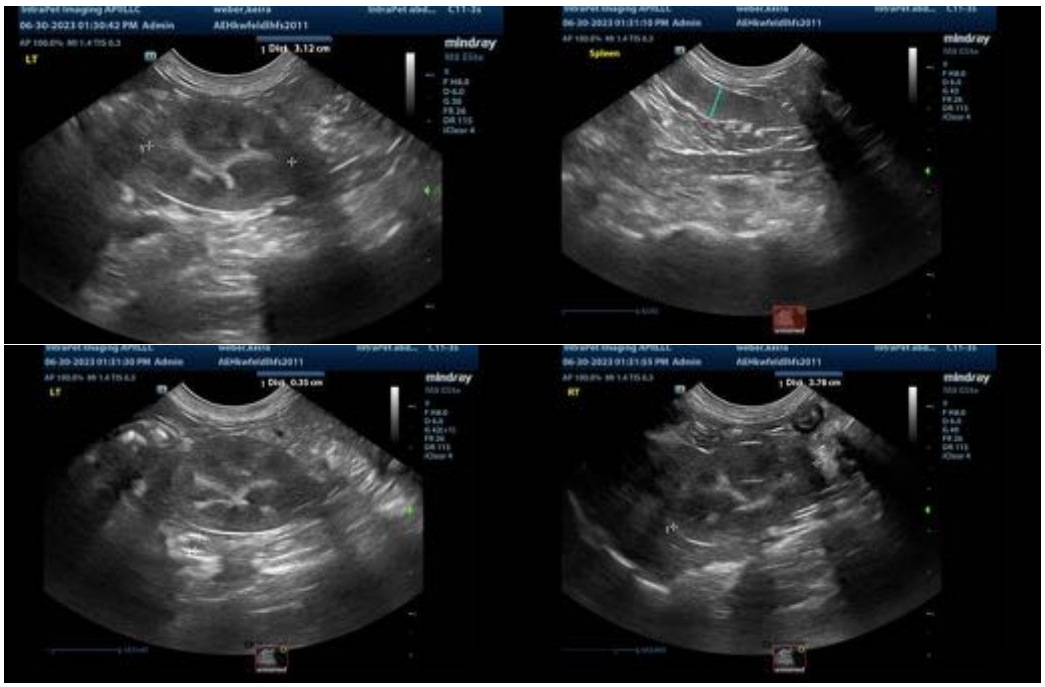
- Thickened small intestine with a prominent muscularis layer -The small intestinal wall changes could be consistent with an underlying inflammatory process. These types of changes can sometimes be seen in normal older cats. Correlate with clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The pancreas appears hypoechoic and prominent with some surrounding reactive mesentery. These changes are consistent with mild pancreatitis. Consider medical treatment for pancreatitis with pain medications, fluids, nausea medications, etc. Additionally, the gallbladder has a large amount of debris, and the gallbladder wall appears slightly thickened, with a mildly dilated and tortuous bile duct. This finding, in conjunction with the thickened small intestine and prominent muscularis layer of the small intestine, is concerning for a possible "triaditis". You could consider Ursodiol therapy to try and encouraged the clearance of some of the biliary secretions. Additionally, if more chronic GI signs have been present, consider further work-up for a primary enteropathy.

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks).
- 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.
- Recommend chronic probiotic therapy.
- If these steps have already been taken, and a primary enteropathy is strongly suspected, consider obtaining GI biopsies.

Recommend continued monitoring of the liver enzymes. If enzyme elevations are getting progressively higher, then further work-up for liver disease (cholangiohepatitis, etc.) is warranted.



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.

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