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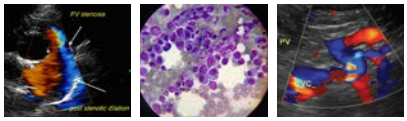

SonoPath
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DATE

1/4/22

PATIENT

Conner Kamaal

SPECIES

Canine

BREED

Schnauzer

SEX

Intact Male

AGE

12/6/09

WEIGHT

17.5 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Ropre

INVOICE

33952

PRESENTING CLINICAL SIGNS

History: Presenting Complaint: Diarrhea; Not Eating; Lethargic; Shaking Body. Date: 01-03-2022 Notes: Saturday. P started exhibiting signs of vomiting after dinner. P continued to vomit. O tried to give P snacks, but P vomited it up. P has been lethargic and not interested in food. P is usually very interested in food. But has not eaten since Saturday. About 2 months ago P was diagnosed with Pre-renal acute kidney disease but the rDVM said not to worry about it. O has no other past medical history
Assessment: Vomiting, Diarrhea, Inappetence DDX: Pancreatitis vs Gastroenteritis vs Cancer vs IBD.

Current Medications: Buprenex, Ampicillin, Pantoprazole, Ondansetron.
Lab Results: GLU 129, Crea 1.6, BUN 57, BUN/CREA 36, TP 7.7, ALB 3.0, GLOB 4.7, ALB/GLOB 0.6, ALKP >2000, TBILI 4.0. PCV/TS 44%,9.2.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 prostate is enlarged in size, measuring 3.43 cm in diameter. It has a fairly regular shape with smooth external margins. The parenchyma is heterogeneous with numerous small, discreet cystic lesions. The prostatic urethra appears normal with no evidence of irregularity, invasion of mass effect, or calculi.

The left kidney has a normal shape and size (4.69 cm). Overall echogenicity is slightly hyperechoic with poor 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 (4.55 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.80 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 right adrenal gland is normal in size measuring 0.65 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.

Spleen

The spleen is subjectively normal in size, 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 hypoechoic. It is irregular in shape. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. The liver is irregular with numerous, somewhat ill-defined, irregular hypoechoic cystic lesions varying in size from 1.3-0.7 cm. There is apparent inflammation in the area surrounding the liver.

The gallbladder lumen is moderately distended. The wall of the gall bladder does not appear overtly thickened and has a relatively smooth mucosal surface. There is a moderate amount of dependent shadowing debris, most consistent with sandy mineralization/small stones. The cystic and common bile ducts are normal/not visible.

Gastrointestinal
The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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.

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.

Other
Both testicles are visualized and appear within normal limits.

ULTRASONOGRAPHIC FINDINGS

- Large, heterogeneous and cystic prostate – most consistent with chronic BPH +/- prostatitis
- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Heterogeneous, irregular, hypoechoic liver with surrounding hyperechoic mesentery – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Shadowing, hyperechoic dependent debris in the gallbladder – most consistent with gallbladder sand/small stones. No overt obstruction is visualized.

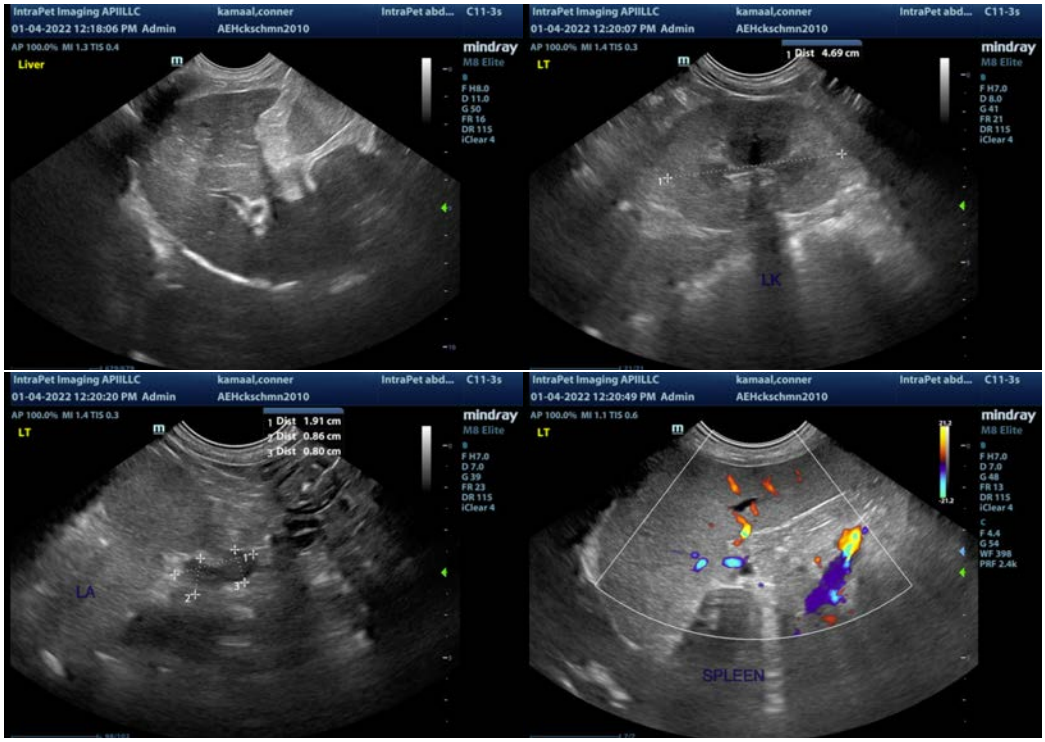
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver appears large and irregular, and somewhat hypoechoic. There is surrounding hyperechoic mesentery, which could be an indicator of hepatic inflammation or pancreatic inflammation, which is not fully visualized. The hepatic changes appear inflammatory, and could be consistent with cholangiohepatitis.

- Recommend a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate for pancreatitis and underlying GI disease.
- Recommend a fine needle aspirate of the liver to look for evidence of infiltrative disease, inflammation, etc.
- Recommend testing for Leptospirosis
- Recommend symptomatic treatment for cholangiohepatitis with fluids, antiemetics, antibiotics +/- Ursodiol, and close monitoring of the gallbladder and pancreas.

Follow the bilirubin elevation closely. If it is persistent or increasing, recommended serial evaluations with imaging. As this currently appears to be a primary hepatopathy, it possible that there is some component of post-hepatic obstruction if pancreatitis component is more significant than appears on today's scan.

Recommend urinalysis and culture and possible neutering if concern for underlying prostatic disease exists.

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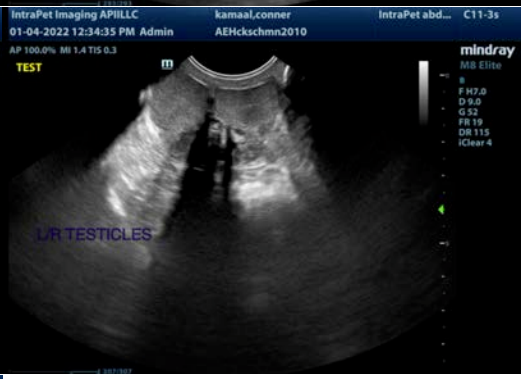
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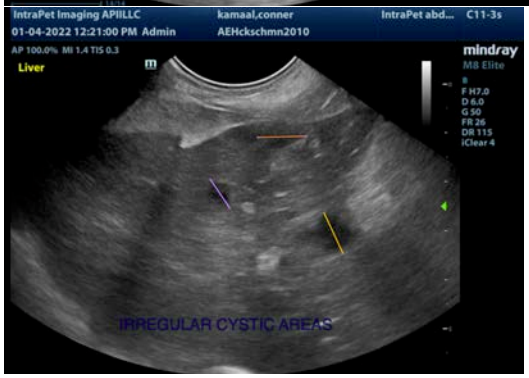
L/R TESTICLES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01-04-2022 12:21:00 PM Admin
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Liver
mindray
M8 Elite
IRREGULAR CYSTIC AREAS

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.

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