IMAGING PERFORMED BY

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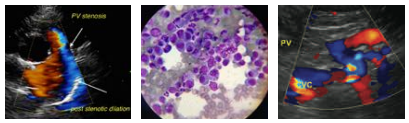

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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DATE
2/15/22

PATIENT
Maggie Field

SPECIES
Canine

BREED
Wire Haired Dachshund

SEX
Spayed Female

AGE
2/14/11

WEIGHT
19 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Thompson

INVOICE
96075

PRESENTING CLINICAL SIGNS

Presents for vomiting and diarrhea - O woke up to 4 spots of diarrhea - ate breakfast and dinner, was acting normally - vomited 4 times after dinner, no blood or bile - passed normal feces, diarrhea ceased - feces as darker in color than normal - will clean the floor, previous pistachio which passed - no known toxin ingestion
Medications: - hydroxyzine 12.5 mg SID, rimadyl SID to BID – simparica.. Moderate to severe dental disease noted on PE.
Current Medications: Pantoprazole 40mg/vial injection (per mL), Buprenorphine 0.6mg/mL.
Radiographs: Mineral opaque material in cranial abdomen, gas dilation portions of small bowel. Lateral abdomen - gas pattern has improved; area of concern remains mid-abdomen.
Date of Previous IntraPet Ultrasound:
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The bladder wall appears normal. The area of the trigone, proximal urethra and ureteral papillae appear normal with no evidence of mass lesions or calculi. There is a large amount of dependent debris in the urinary bladder.

The left kidney has a normal shape and size (4.72 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. Pyelectasia is noted and measured 0.55 cm and hydroureter evident distally at 0.3 cm. There is no evidence of nephroliths or infarcts. Renal vasculature is normal.

The right kidney has a normal shape and size (4.94cm). 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 0.6 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 right adrenal gland is normal in size measuring 0.53 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 echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is an ill-defined, hypoechoic region/nodule in the diaphragmatic area of the liver and measured 1.63 cm in diameter. The gallbladder lumen is moderately distended. The wall of the

gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. 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 (0.32 cm) and the jejunum measured as normal (0.2 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 mottled 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.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Large amount of echogenic debris in the urinary bladder. The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus. Recommend urinalysis and culture.

- Decreased corticomedullary distinction in both kidneys with left-sided pyelectasia and hydroureter. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.

- Left-sided renal pelvic dilation and mild ureteral dilation. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- A cause for the ureteral dilation is not observed. Consider differentials such as infection, an obstruction which was not visualized, a ruptured ureter, ectopic ureter or other congenital abnormality.
    - Consider urinalysis and culture
    - Consider CT contrast study or intravenous pyelogram

- The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Mildly heterogenous liver with ill-defined, hypoechoic nodule. 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.

- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are some lesions associated with the liver, gallbladder and kidneys that are likely somewhat age related and likely unrelated to the presenting symptoms of vomiting and diarrhea. I recommend urinalysis and culture due to the dilation visualized in the left kidney and close continued monitoring as a cause for this dilation is not readily observed. Consider a blood pressure evaluation.

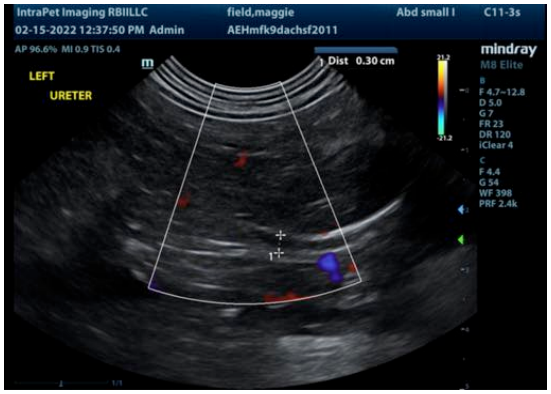
If liver enzymes are normal in this patient then I suspect the hepatic parenchymal changes are likely age related.

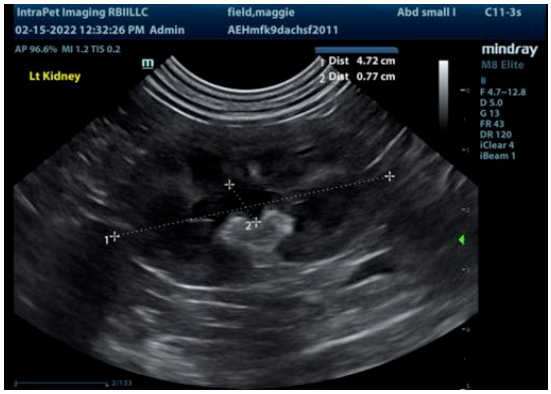
No focal lesions are visualized associated with the GI tract to explain the vomiting and diarrhea reported. The pancreas is somewhat prominent and pancreatic changes on ultrasound do not always correlate with the severity of pancreatic symptoms.

- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and the small intestine.

- Correlate findings with abdominal radiographs as ultrasound can be insensitivity in picking up some types of foreign material.

- Hopefully this is a case of gastroenteritis and supportive care in addition to probiotics, etc. will resolve these symptoms. If symptoms persist and pancreatitis is unlikely based on the PLI levels then GI biopsies can be considered, but typically not in a case of acute disease.






IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
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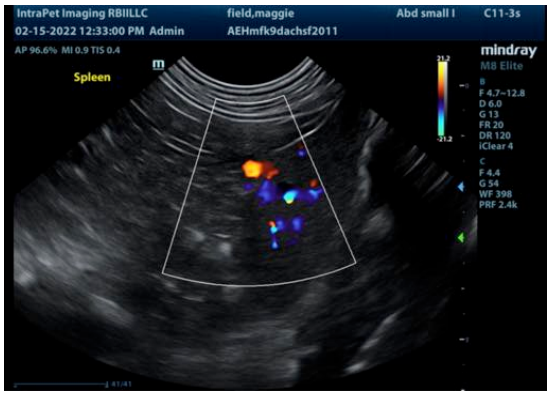
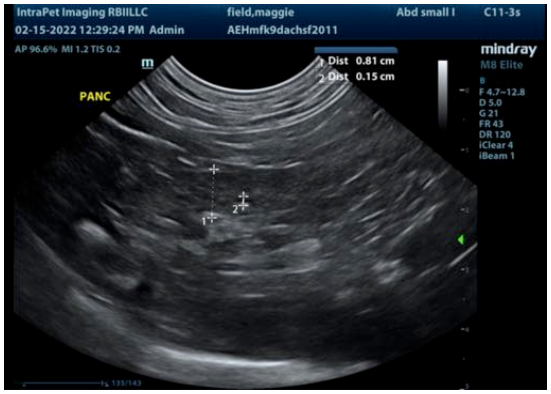
AEHmfk9dachsf2011
AP 96.6% MI 1.4 TIS 0.3
RT
RA
1 Dist 1.88 cm
2 Dist 0.64 cm
3 Dist 0.62 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
02-15-2022 12:29:49 PM Admin
AEHmfk9dachsf2011
AP 96.6% MI 1.2 TIS 0.2
RT
1 Dist 4.94 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
02-15-2022 12:33:00 PM Admin
AEHmfk9dachsf2011
AP 96.6% MI 0.9 TIS 0.4
Spleen
mindray
M8 Elite


IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
02-15-2022 12:31:33 PM Admin
AEHmfk9dachsf2011
AP 96.6% MI 1.2 TIS 0.2
Bladder
1 Dist 5.65 cm
UB-DEPENDENT DEBRIS
mindray
M8 Elite


IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
02-15-2022 12:29:24 PM Admin
AEHmfk9dachsf2011
AP 96.6% MI 1.2 TIS 0.2
PANC
1 Dist 0.81 cm
2 Dist 0.15 cm
mindray
M8 Elite


IntraPet Imaging RBIILLC
field,maggie
Abd small I
C11-3s
02-15-2022 12:28:28 PM Admin
AEHmfk9dachsf2011
AP 96.6% MI 1.2 TIS 0.2
Liver
1 Dist 1.63 cm
HYPO LESION
mindray
M8 Elite

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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