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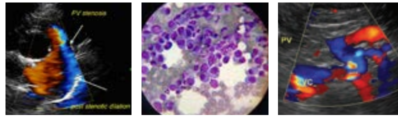

SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

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DATE

8/17/23

PATIENT

Adler Hager

SPECIES

Canine

BREED

German Shepherd

SEX

Spayed Female

AGE

5/5/16

WEIGHT

85.2 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Kalwa

INVOICE

44749

PRESENTING CLINICAL SIGNS

German Shepard. EPI, but doing well on meds. Has not eaten since Sunday. Vomiting large amounts of yellow bile. Diarrhea. Lethargic, which is not like herself. Gums are pink. ATO- (both Ms in the room) - Clinical signs started about 5 days ago a small amount, still eating --> sunday stopped eating --> monday seemed very sick more vomiting --> tuesday vomiting very large piles liquid; diarrhea started tuesday - O tried multiple diets- nothing working tried freeze dried food. Normally eats costco chicken and rice diet
with grain (previously on grain free but O stopped worry for cardiomyopathy) then switched to science diet sensitive stomach. - O has chickens, ducks, drinks out of the salt pool water where the pigs go. - Previously on hydrolyzed diet- didnt like. - No recent ingestion, no toxins, doesn't go anywhere, no sock or toy ingestion, no recent people food except chicken liver (cooked- thought too rich). On grain inclusive diet - Last few days looks like she lost weight ~3 weeks ago almost 100 lbs at rDVM checkup History - Chronic diarrhea --> Diagnosed EPI- does very well with the medication - Pneumonia, fungal infection - Eats sticks - Enlarged heart, no murmur based on xrays, possible cardiomyopathy by feeding grain free diet- O switched diets.

Current Medications: Ondansetron, Metronidazole, Dextrose, Unasyn, Protonix.
Lab Results: See attached.
Radiographs: Microcardic, lungs clear, few abnormal bowel loops- colon > SIT but cannot tell, stomach small, no obvious fb Spondylosis.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: IV.
Stat Report: STAT 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, 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 (8.29 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 (9.11 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal 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 0.79 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 0.79 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 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 significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of intraluminal echogenic debris and some very early organization at the wall. There is reactive mesentery surrounding the gallbladder, particularly at the gallbladder neck. A small amount of free fluid is visualized in this region. The bile duct appears thickened proximally, measuring 1.16 cm. This can be followed to the duodenal papilla, where it measures approximately 0.70 cm. The duodenal papilla appears slightly irregular and prominent.

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. Duodenum wall measures 0.53 cm. Jejunum wall measures 0.43 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

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. No lymphadenopathy. The mesentery is reactive around the gallbladder.

ULTRASONOGRAPHIC FINDINGS

- Large, distended gallbladder with a large amount of echogenic intraluminal debris and reactive mesentery – Findings are most consistent with severe cholecystitis, and there is concern for possible gallbladder rupture/reactive peritonitis (sterile or septic).

- Dilated bile duct with prominent duodenal papilla – Findings suggest a more distal obstructive process. The duodenal papilla could be severely inflamed. A mass lesion is also possible.

- Scant free abdominal fluid with reactive mesentery – Findings are most consistent with focal peritonitis (septic or sterile).

- Heterogeneous liver – 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.

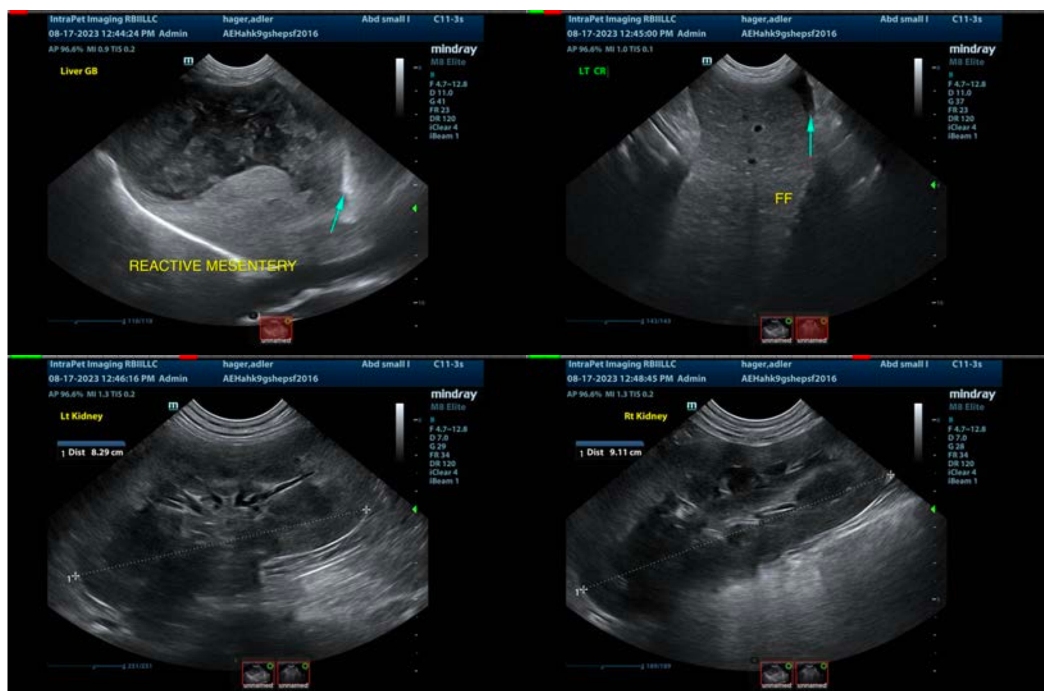
- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gallbladder is significantly distended with a large amount of intraluminal debris and surrounding reactive mesentery and a small amount of free abdominal fluid. These findings are concerning for a very inflamed gallbladder (Cholecystitis) and there is concern for possible rupture or imminent rupture based on the surrounding inflammation and fluid. Additionally, the bile duct is distended and dilated up to the level of the duodenal papilla, which appears somewhat prominent. This could be due to inflammation or thickened due to infiltrative disease, a mass effect, etc.

Ideally in this scenario a contrast CT scan would be performed of the cranial abdomen to try and differentiate a primary gallbladder versus a bile duct issue, as this can impact the surgical plan. Referral to a veterinary surgeon is recommend. Alternately, exploratory could be considered to further evaluate, obtain samples, and try to relieve the situation. Sampling of the free fluid in the abdomen may be helpful if there is evidence of free bacteria or bile particles, then emergency surgery is warranted. As a last resort, if there is no evidence of septic peritonitis and surgery is absolutely not possible, aggressive medical management could be considered with close monitoring, but the risk for possible rupture is concerning.

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



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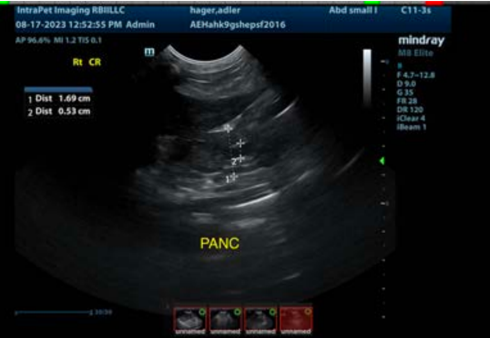
C11-3s
mindray
Rt CR
REACTIVE MESENTERY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hager,adler
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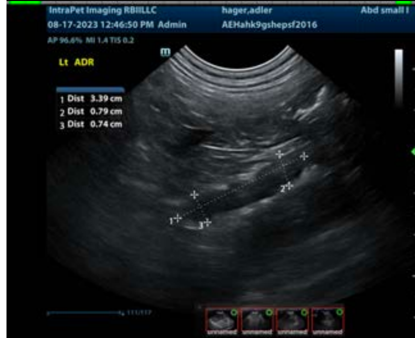
Abd small I
C11-3s
mindray
Rt CR
1 Dist 1.69 cm
2 Dist 0.53 cm
PANC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hager,adler
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C11-3s
mindray
Lt ADR
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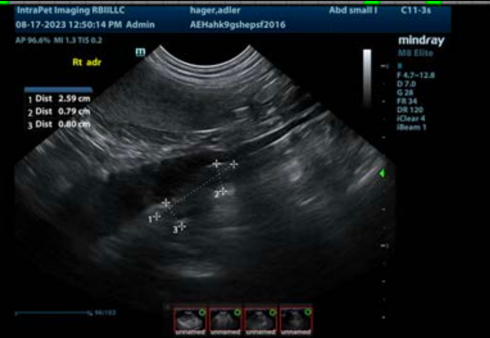
3 Dist 0.74 cm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hager,adler
AEHahk9gshepsf2016
Abd small I
C11-3s
mindray
Rt adr
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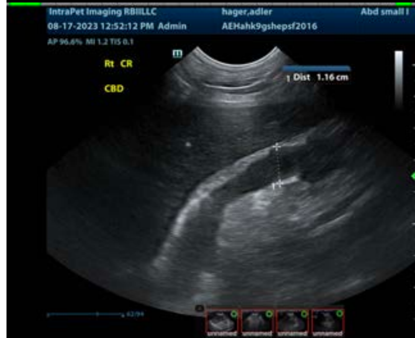
2 Dist 0.79 cm
3 Dist 0.80 cm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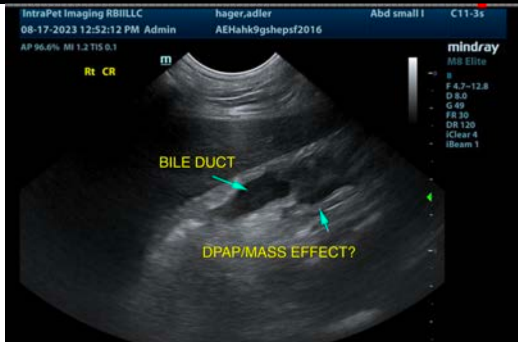
hager,adler
AEHahk9gshepsf2016
Abd small I
C11-3s
mindray
Rt CR
CBD
1 Dist 1.16 cm

IntraPet Imaging RBIILLC
08-17-2023 12:44:13 PM Admin
hager,adler
AEHahk9gshepsf2016
Abd small I
C11-3s
mindray
Liver GB
REACTIVE MESENTERY AROUND GB


IntraPet Imaging RBIILLC
08-17-2023 12:52:12 PM Admin
hager,adler
AEHahk9gshepsf2016
Abd small I
C11-3s
mindray
M8 Elite
Rt CR
BILE DUCT
DPAP/MASS EFFECT?

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)
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