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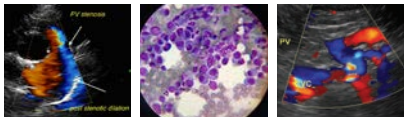

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DATE

8/11/22

PATIENT

William Powers

SPECIES

Canine

BREED

King Charles Cavalier

SEX

Neutered Male

AGE

8/24/15

WEIGHT

23.2 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Banfield Towson

REFERRING VET

Dr. Mike

INVOICE

40316

PRESENTING CLINICAL SIGNS

Not eating or drinking since yesterday. Vomiting Tuesday into yesterday am. Last ate Tues evening.

Current Medications: None listed.
Lab Results: Rerunning BW (chem)- no change, both samples severely hemolyzed, dilution needed for ALT; BUN 33. CBC low lymphocytes, monocytes, platelets; PCV pending. Giardia positive. Cpl abnormal.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested by DVM.

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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (4.74 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 (4.97 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 0.71 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 0.41 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 large in size and hypoechoic. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is significant inflammation in the cranial abdomen around the region of the liver.

The gallbladder lumen is significantly distended. The majority of the gallbladder wall appears relatively thin walled but the wall thickens in the area of the gall bladder neck. There is a large area of hyperechoic debris visualized in the dependent portion of the gallbladder and in the gallbladder neck. Some areas within this

appear shadowing, as this debris could be partially mineralized or there could be stones/sandy debris and tissue (possibly even mass effect) present as well. This debris extends into the gallbladder neck and the proximal bile duct, which is dilated. This dilation extends to the common bile duct which is difficult to visualized due the the shadowing debris but appears to be approx. .75cm. . There is significant inflammation in the cranial abdomen around the region of the gallbladder. Findings suggestive of bile duct obstruction/mucoduct/possible mass effect VS severe inflammatory change in neck of the gall bladder.

Gastrointestinal

The stomach contains minimal luminal contents. It measures as slightly thickened at 0.75 cm 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. These findings are most consistent with diffuse gastritis, and there is a large amount of surrounding inflammation in the cranial abdomen.

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 measured 0.45 cm. Jejunum wall measured 0.37 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 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 pancreatitis. I suspect thiis is secondary to the primary gall bladder changes.

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 severely hyperechoic in the cranial abdomen in the region of the gallbladder, liver and pancreas.

ULTRASONOGRAPHIC FINDINGS

- Hypoechoic, heterogeneous liver with surrounding inflammation – 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. Given the surrounding inflammation, consider inflammatory disease, infectious disease, and round cell neoplasia.

- Large, distended gallbladder with thickended gall bladder neck and dilated proximal bile duct with shadowing intraluminal debris /tissue– The gallbladder is large and distended, with intrluminal debris in the neck/proximal bile duct and abnormal tissue possibly secondary to inflammation but neoplasia would have to be considered. Findings concerning for a bile duct obstruction.

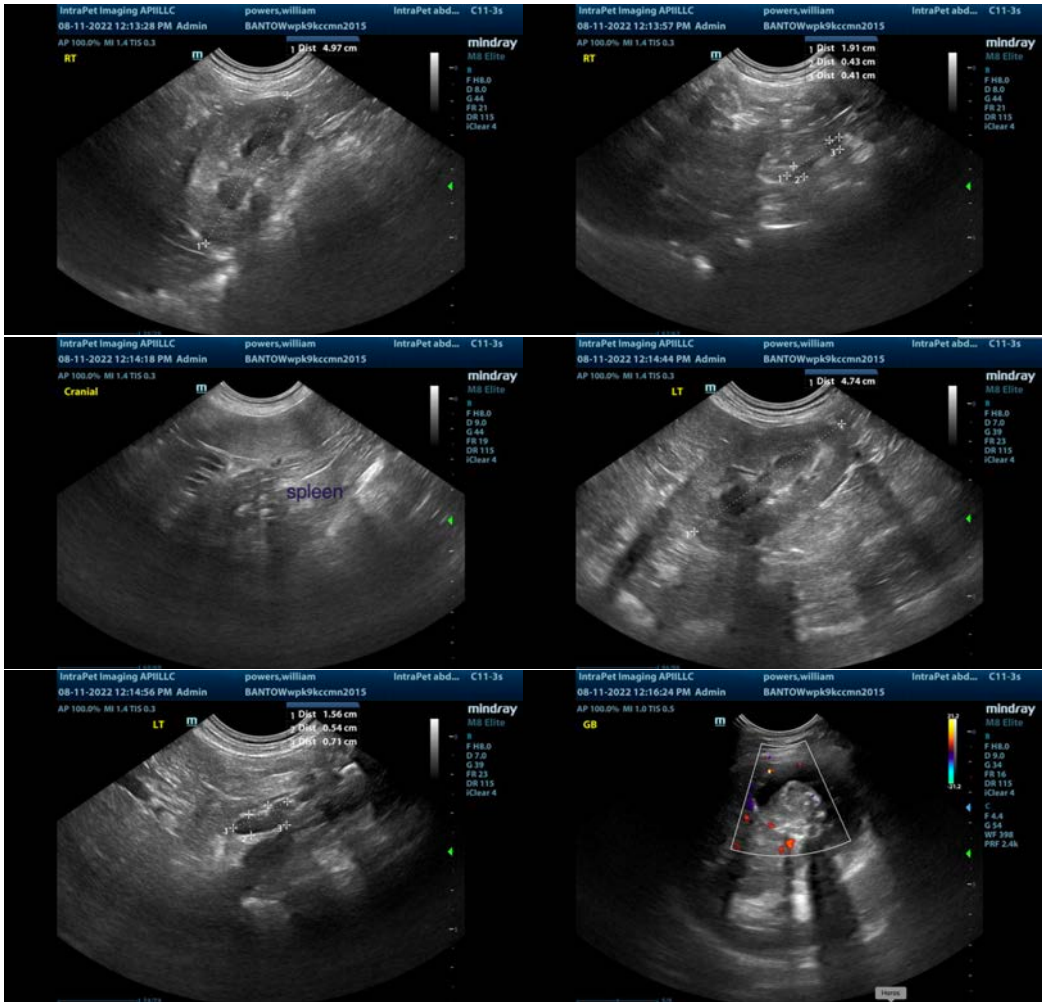
- Hypoechoic, mottled pancreas with surrounding hyperechoic mesentery – The pancreatic changes are most consistent with mild/moderate pancreatitis/pancreatic inflammation. I suspect this is secondary to the GB disease.
- Hyperechoic cranial abdominal inflammation.

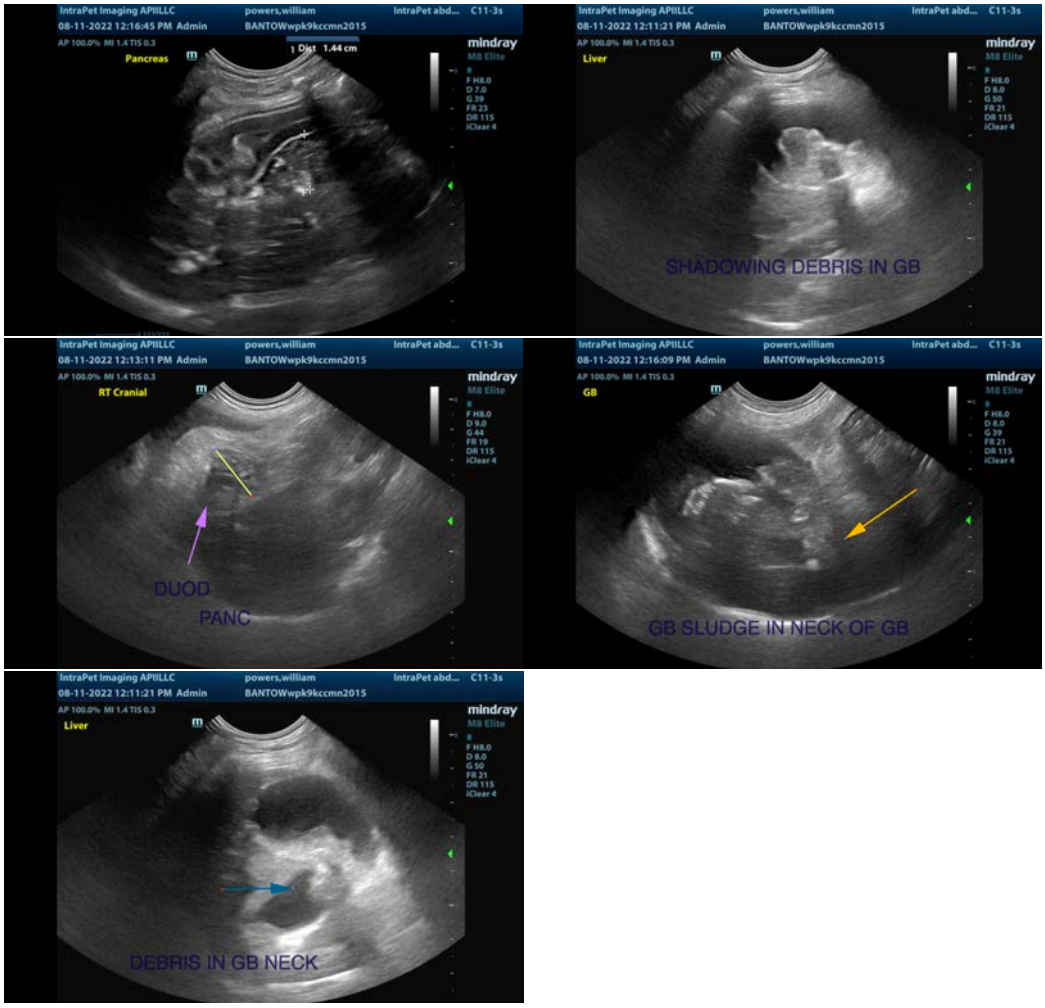
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is severe inflammation in the cranial abdomen in the region of the liver, gallbladder and pancreas. All of these tissues appear abnormal and it is somewhat difficult to determine which of these areas is responsible for causing the inflammation.
The gallbladder is large and distended with intraluminal material. This distention appears to extend into the gallbladder neck where the wall is thickened and irregular. Debris extends into the cystic duct and there is persistent dilation into the common bile duct. Given the abnormal tissue and suspected obstruction, along with the progressive elevation in bilirubin, surgical evaluation should be strongly considered as there is concern for possible peritonitis/rupture. Histopathology and culture of abnormal tissues should be submitted.

Additionally, the liver is hypoechoic and heterogeneous and appears somewhat swollen and there is likely secondary pancreatitis.

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.





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.

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