IMAGING PERFORMED BY

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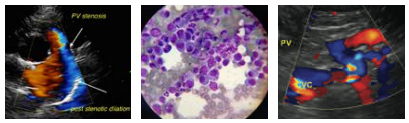

SonoPath
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DATE
5/10/22

PATIENT
Gypsy Carrington

SPECIES
Canine

BREED
Pug

SEX
Spayed Female

AGE
12/26/06

WEIGHT
27.1 lbs

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

HOSPITAL NAME
Animal Emergency Hospital

REFERRING VET
Dr. Willer

INVOICE
30230

PRESENTING CLINICAL SIGNS

Saw RDVM on 5/5/22 for vomiting, not eating, lethargy had seen the RDVM a week prior- started on clindyamcin for dental - symptoms started during the week given a cerenia injection had xrays (rDVM notes)- possible rounded liver edges/ increased fullness in the cranial abdomen; mineralization noted in the kidneys bloodwork sent out- bloodwork showed anemia (HCT 31.9- non regenerative); BUN 111; Cre- 2.8; SDMA- 16; K- 6.0; Alb- 2.5; ALT- 392; ALP 504 since the injection of cerenia- has been eating and no further vomiting gets previcox once a day for the year- got it this morning as well as the clindyamcin history of bladder stones
Current Medications: Amoxicillin, Denamarin, Gabapetin, Omeprazole.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: NO previous.
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 mildly to minimally 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 patient urinated during exam.

The left kidney has a normal shape and size (4.76 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. Mild pyelectasia is noted and measures 0.14 cm with pinpoint, non-obstructive nephroliths. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.56 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. Moderate pyelectasia is noted and measures 0.7 cm with pinpoint, non-obstructive nephroliths. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.7 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 0.64 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 borderline large and slightly irregular. The blood flow through the hilus and splenic parenchyma appears normal. There are two, somewhat isoechoic subtle mass effects visualized in the spleen. The larger measures 4.21 x 3.87 cm and is solid, but deviates the splenic capsule. The other mass effect is more mixed in echogenicity, solid and measures 2.45 x 2.03 cm.

Liver

The liver is subjectively normal in size, and echogenicity with an irregular shape. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a

large, heterogenous, mildly cystic mass effect visualized on the left side of the liver measuring 7.12 x 4.83 cm. The gallbladder lumen is moderately distended. Some areas of the gallbladder wall appear mildly thickened with adherent debris. There is a focal section of wall that appears thickened and somewhat hypoechoic measuring 1.2 x 0.77 cm. This could be consistent with focal thickening or less likely a mass effect. There is a large amount of primarily non-organized echogenic debris in the dependent portion of the gallbladder. There is no evidence of bile duct dilation or inflammation around the gallbladder.

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.

Heart

A brief view of the heart was submitted. No pericardial effusion was seen.

ULTRASONOGRAPHIC FINDINGS

PRIMARY FINDINGS:

- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia and non-obstructive nephroliths. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of both kidneys could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Two solid splenic masses visualized. Two focal, solid, mixed echogenic masses are present within the splenic parenchyma. This masses distorts the splenic capsule. Differentials include benign lesions such as lymphoid hyperplasia, hemangioma, etc., or neoplastic lesions such as hemangiosarcoma, lymphoma, histiocytic sarcoma, etc.

- Large, partially cystic hepatic mass. This could be consistent with a primary hepatic mass and be a benign or cancerous lesion.

- Large gallbladder debris with mildly thickened wall and a focal area of gallbladder wall irregularity. The findings could be consistent with cholecystitis, early gallbladder disease and/or an early mass effect of the gallbladder wall or an early mass effect of the gallbladder wall or focal inflammation. I recommend Ursodiol and antibiotics with continued monitoring with ultrasound.

SECONDARY FINDINGS:

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

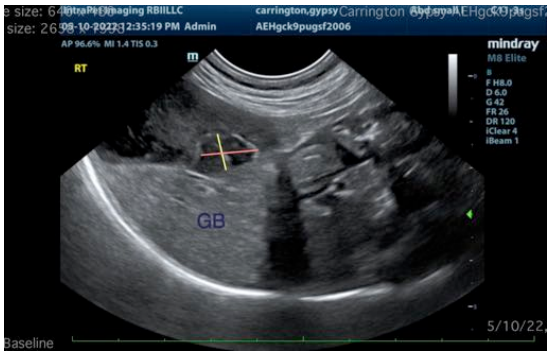
There is reduced corticomedullary distinction and bilateral pyelectasia in the kidneys. I recommend urinalysis and culture as well as blood pressure evaluation along with diuresis as there is possible pyelonephritis present. Additionally, I would recommend stopping the non-steroidal anti-inflammatory.

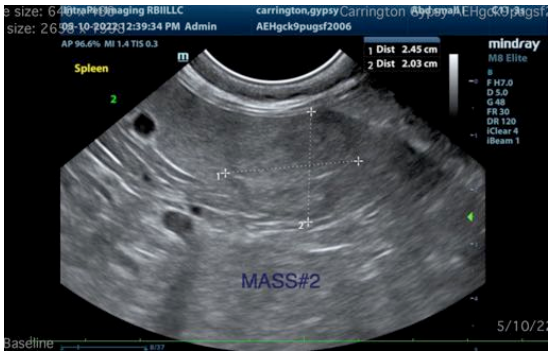
There are numerous lesions within the abdomen and it is somewhat difficult to determine what to deal with As a priority. The primary objective would be stabilizing renal function prior to considering any anesthetic procedure. Additionally I would start by performing three view thoracic radiographs.

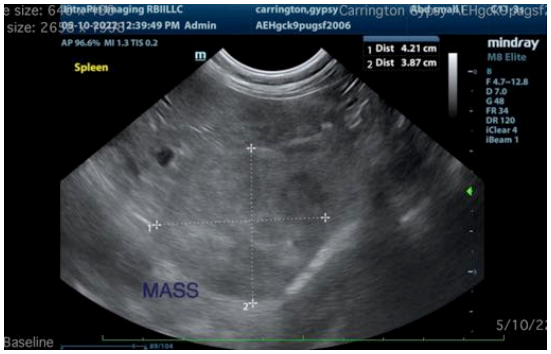
There are two mass lesions within the spleen. Options moving forward include FNA of these lesions or splenectomy with histopathology.

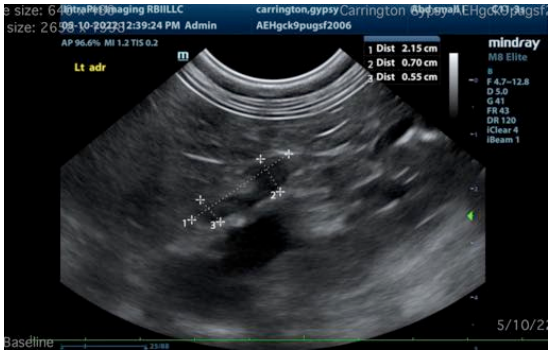
There is a large, mildly cystic mass on the left side of the liver. A contrast CT scan of the abdomen could be considered to evaluate this lesion for surgery and to evaluate the entire abdomen for possible metastatic lesions. This could represent a benign or cancerous lesion. A FNA can be considered to rule out other non-primary hepatic tumors (lymphoma, mast cell tumor, etc.).

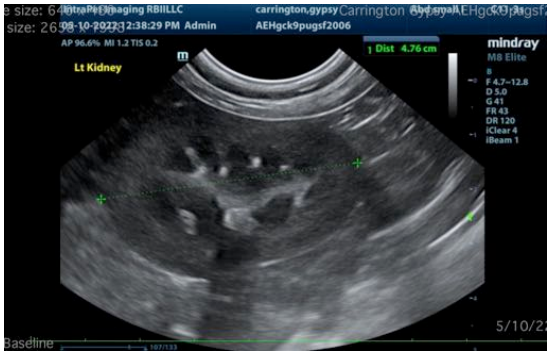
There is a large amount of debris within the gallbladder and there is a focal area of wall that looks atypical. I recommend starting antibiotics such as Clavamox or something with a good anaerobic spectrum while initiating Ursodiol therapy and continuing to monitor the gallbladder with ultrasound. Additional monitoring of liver enzyme activity can be helpful.

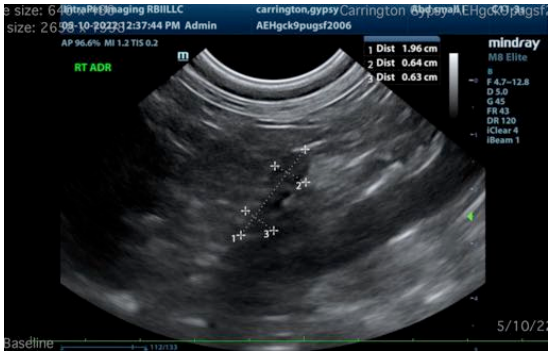


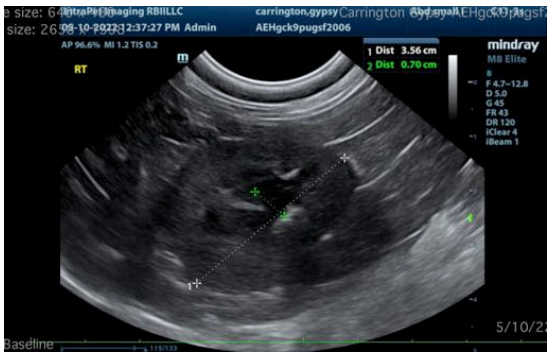












The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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