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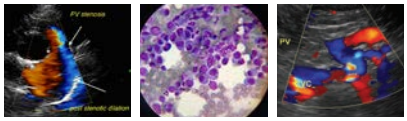

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DATE

6/21/22

PATIENT

Mason Clarke

SPECIES

Canine

BREED

Pug X

SEX

Neutered Male

AGE

1/19/08

WEIGHT

34 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Ruby

INVOICE

38942

PRESENTING CLINICAL SIGNS

Vomited this yesterday. Had been fine this am then passed a sock in his stool and then became acutely painful and lethargic. Mild increase in BUN- resolved at 12 hours. Has some weakness in hind limbs-- new as per owner-- unclear if related to abdomen discomfort or new back issues
Does not currently have CP deficits. Overall-, depressed and weak given normal labs, mm pink, pulses synchronous ,lungs clear. placed u.cath for comfort b/c will not walk

Current Medications: Buprenorphine, Unasyn, Protonix.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with urine, and an indwelling foley catheter is visualized. 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 (5.19 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 (5.33 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/borderline enlarged in size measuring 0.70 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/borderline enlarged in size measuring 0.68 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. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a small mixed echogenic nodule visualized within the splenic parenchyma measuring 0.63 cm.

Liver

The liver is large in size and slightly irregular. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous nodules/masses visualized associated with the liver. The largest on the left caudal aspect of the

liver is hyperechoic with mixed echogenicity and measures 6.84 cm x 5.66 cm. A smaller hyperechoic lesion is visualized within the parenchyma on the right side, measuring 2.61 cm.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. 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. 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 non-formed liquid fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

There is a scant amount of free abdominal fluid. No lymphadenopathy. The omentum is generally of normal echogenicity.

PRIMARY FINDINGS

- Mildly heterogeneous liver with a large, mixed echogenic mass effect and numerous other intraparenchymal hyperechoic nodules. Many of these lesions could represent benign nodules. The larger mass lesion has an appearance most consistent with a primary hepatic mass (adenoma, carcinoma, etc.).

- Mildly mottled spleen with mixed echogenic nodule – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Borderline “plump” adrenal glands – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.

- Moderate volume liquid stool within the colon – consistent with reported diarrhea.

- Scan free abdominal fluid.

SECONDARY FINDINGS

- In-dwelling foley catheter visualized within the urinary bladder.

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

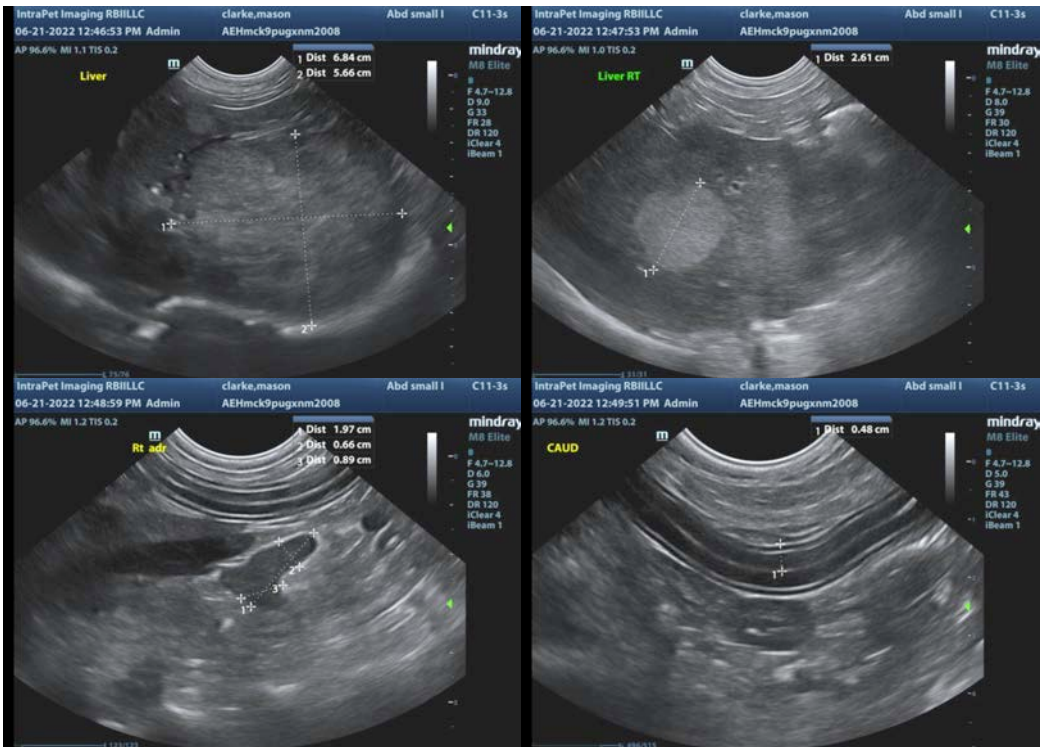
The liver is large and irregular with a moderate sized mass effect. This has the appearance most consistent with a primary hepatic mass, although a metastatic lesion is possible. Correlate with liver enzyme values. It is very possible that this is an incidental finding and not associated with the symptoms reported acutely. To further workup this lesion, you could consider a contrast CT scan to evaluate for possible surgical removal. There are multiple nodules visualized within the hepatic parenchyma, most of which appear hyperechoic. It would be difficult to sample all of these, but you could consider a fine needle aspirate of some of the more superficial lesions.

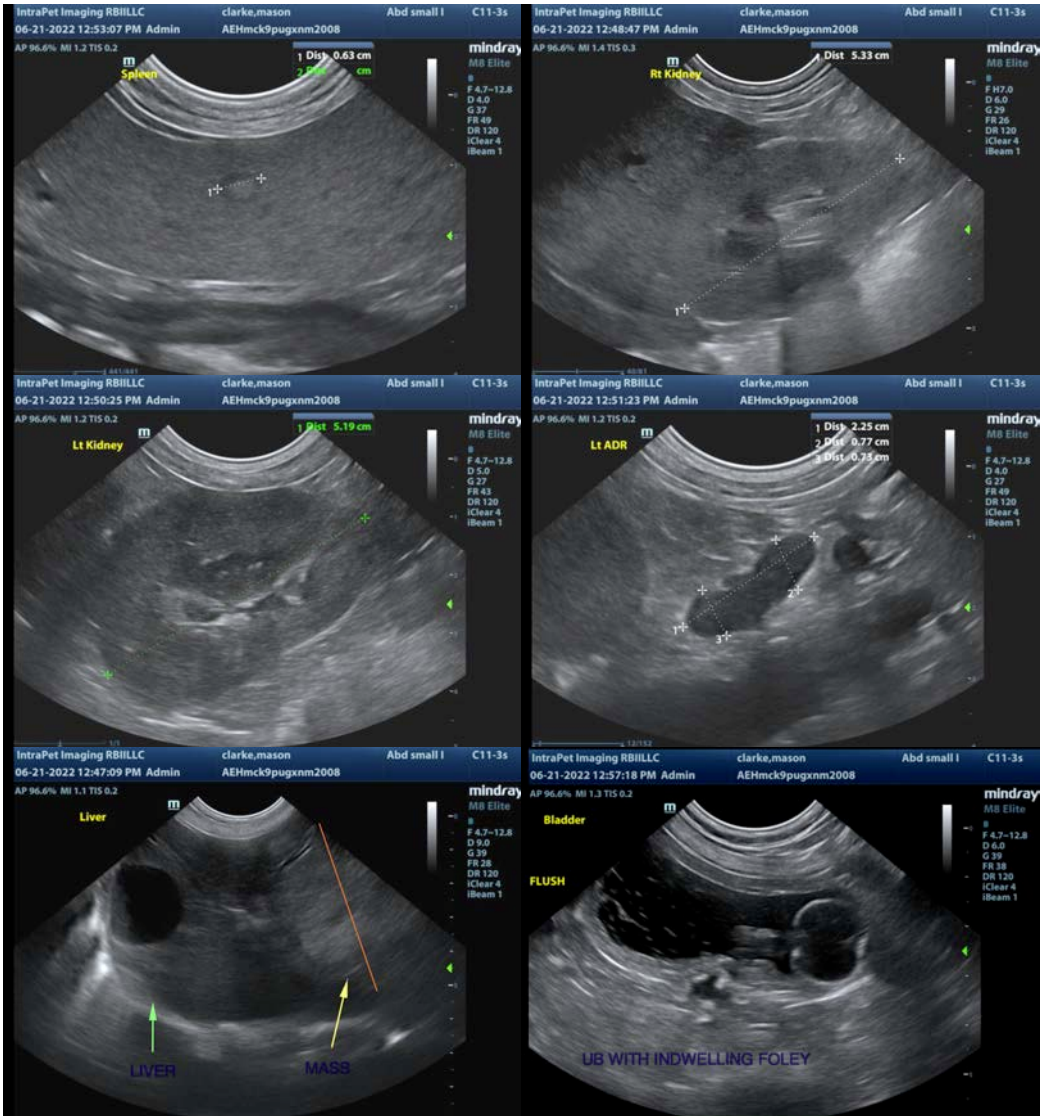
There is a very small nodule visualized within the splenic parenchyma. Consider a fine needle aspirate or continued monitoring with ultrasound.

The adrenal glands appear somewhat "plump". If signs of Cushing's are present, you could consider adrenal function testing when this patient is feeling better.

An obvious cause for the acute illness is not observed. You could consider a quantitative PLI evaluation to look for evidence of pancreatitis, although an inflamed pancreas was not visualized on today's scan. Recommend full bloodwork (if not already done) and 3-view radiographs of the thorax as well as radiographs of the lumbar spine and abdomen.

There is liquid stool within the colon, consistent with the diarrhea reported. Recommend symptomatic treatment for acute gastroenteritis and continued close monitoring.





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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