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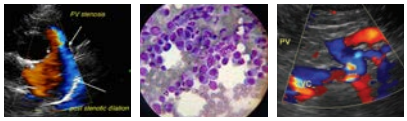

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DATE

10/27/22

PATIENT

Bella Hermann

SPECIES

Canine

BREED

Cavallier X

SEX

Spayed Female

AGE

2/14/10

WEIGHT

26 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Bayside AMC

REFERRING VET

Dr. Sims

INVOICE

42430

PRESENTING CLINICAL SIGNS

History of accidents in the house x 2 months, urinating large puddles. Elevated alk phos and alt on bloodwork.

Current Medications: None listed.
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 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 (4.91 cm) with small non-obstructive nephroliths, one of which measures at 0.27 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.44 cm) with small non-obstructive nephroliths, one of which measures at 0.23 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is large, measuring 0.89 cm at the cranial pole, 1.2 cm at the caudal pole, and 2.78 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that there are ill-defined hyperechoic regions, one in the cranial pole measured 0.59 cm x 0.50 cm. One in the caudal pole measures 0.88 cm x 0.76 cm. These do not appear to deviate the shape of the adrenal gland. There is no evidence of vascular invasion.

The right adrenal gland is large, measuring 0.85 cm at the cranial pole, 0.90 cm at the caudal pole, and 2.48 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is somewhat abnormal in appearance in that there is an ill-defined hyperechoic region in the cranial pole measuring approximately 0.56 cm in diameter. There is no evidence of vascular invasion. The lesion does not deviate the shape of the adrenal significantly.

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. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains heavy shadowing material. 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 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

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

- Large, irregular, heterogeneous adrenal glands with ill-defined hyperechoic regions – I suspect this represents hyperplasia and heterogeneous adrenal glands. Recommend continued monitoring for any progression of mass effects.

- Bilateral adrenomegaly - 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.

- Small non-obstructive nephroliths in both kidneys – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- 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.

- Shadowing material visualized within the gastric lumen – Correlate with feeding history and abdominal radiographs, as there is some hard shadowing material within the gastric lumen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

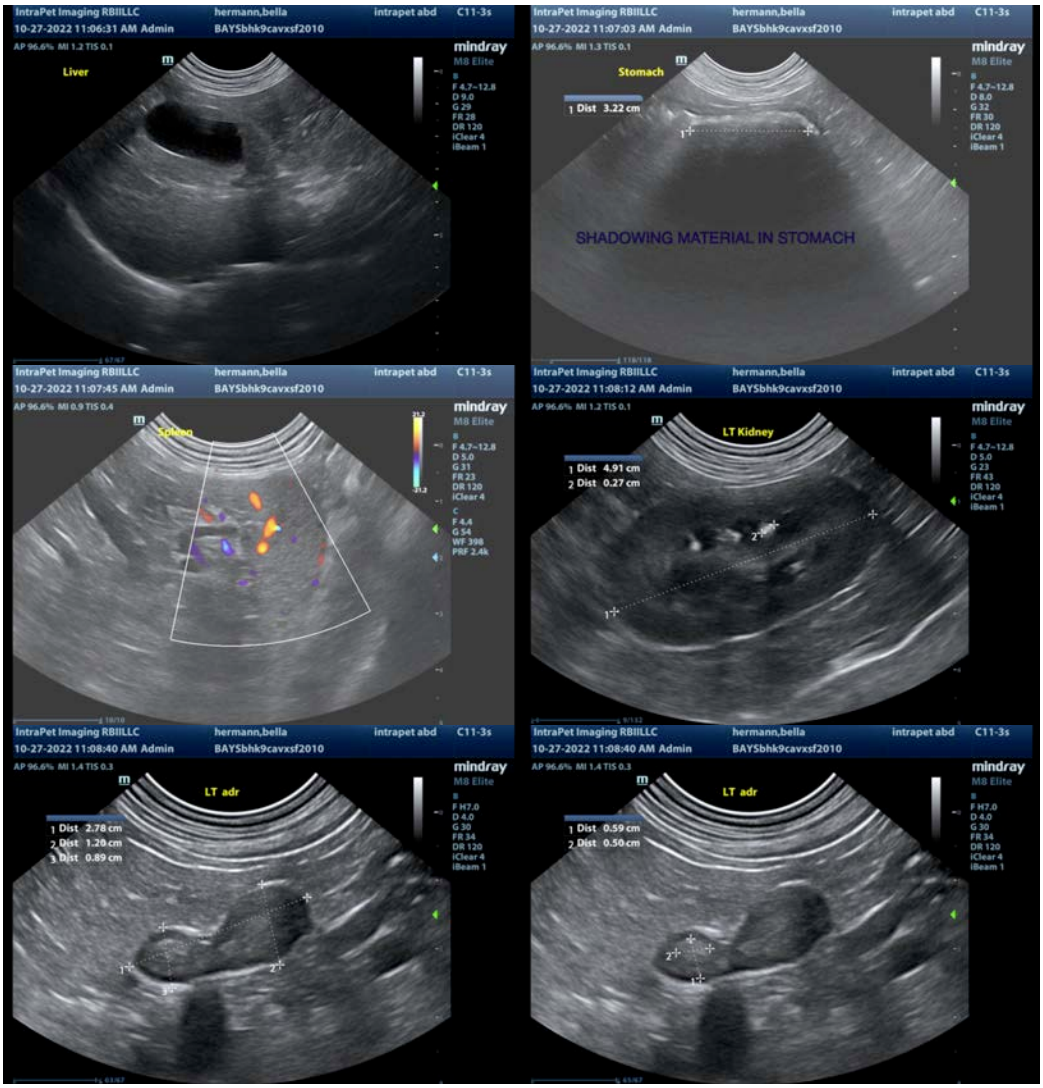
Both adrenal glands appear large and somewhat mottled/heterogeneous. There are some focal hyperechoic regions that I suspect represent hyperplasia, although early mass lesions cannot be excluded as a possibility. If this patient clinically appears Cushingoid, then I would recommend adrenal function testing and treatment,

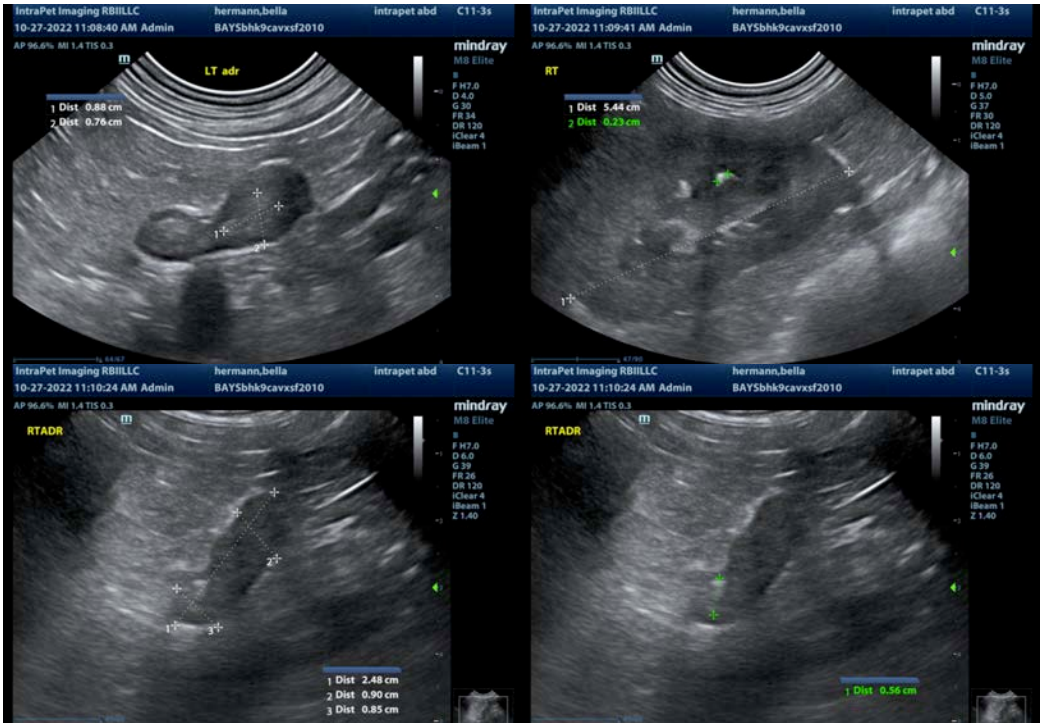
and possibly a recheck ultrasound in 2-3 months.

The liver is heterogeneous. This could be consistent with a vacuolar/steroid hepatopathy and Cushing's. You could consider a liver function test and a fine needle aspirate if there is concern for primary liver disease.

Recommend blood pressure evaluation and 3-view thoracic radiographs as a baseline.

Some heavy shadowing material was visualized within the gastric lumen. This could represent ingesta or ingested foreign material. There is no evidence of an obstruction at this time. Correlate these findings with abdominal radiographs and the feeding history.





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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