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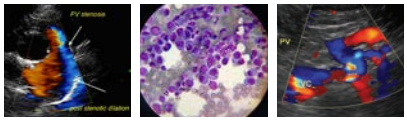

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DATE

10/5/21

PATIENT

Ace Wall

SPECIES

Canine

BREED

Mix

SEX

Neutered Male

AGE

2009

WEIGHT

55.4 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Chadwell AH

REFERRING VET

Dr. Malick

INVOICE

26056

PRESENTING CLINICAL SIGNS

History: Acute vomiting/diarrhea with blood in stool 9/17/2021.Treated with metronidizole and cerenia, with quick resolution. However, 7 pound weight loss noted in last 10 months. pet appears thin, with easily palpable ribs, spinous processes.
Pet has dental disease, worn teeth, a few areas of superficial pyoderma with alopecia and epidermal collarettes, but PE unremarkable otherwise.
Current Medications: no medications at this time
Lab Results: ALP has been elevated since 2018, 538 ALP 12/22/2020, 843 ALP 9/17/2021.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not needed.
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 prostate is normal in size (1.2 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.47 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 (6.39 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 large in size measuring 0.41 cm at the cranial pole, 1.22 cm at the caudal pole, and 2.28 cm in length. It is observed in its normal position cranial to the left renal artery. A hyperechoic nodule is noted in the caudal pole measuring 1.17 cm x 1.04 cm. It is irregular in appearance and shape, in that the caudal pole is hyperechoic and enlarged with a large hyperechoic nodule present. There is deviation of associated vasculature, but no definitive invasion is visualized.

The right adrenal gland is normal in size measuring 0.70 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 mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the

vasculature and biliary tract appear normal. There isd a 1.15 cm small, hypoechoic nodule visualized intercostally.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 0.3-0.5 cm 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

- Enlarged caudal pole of left adrenal gland – Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

- Heterogeneous liver with small hypoechoic nodule – 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.

SECONDARY FINDINGS

- Moderate gallbladder debris – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

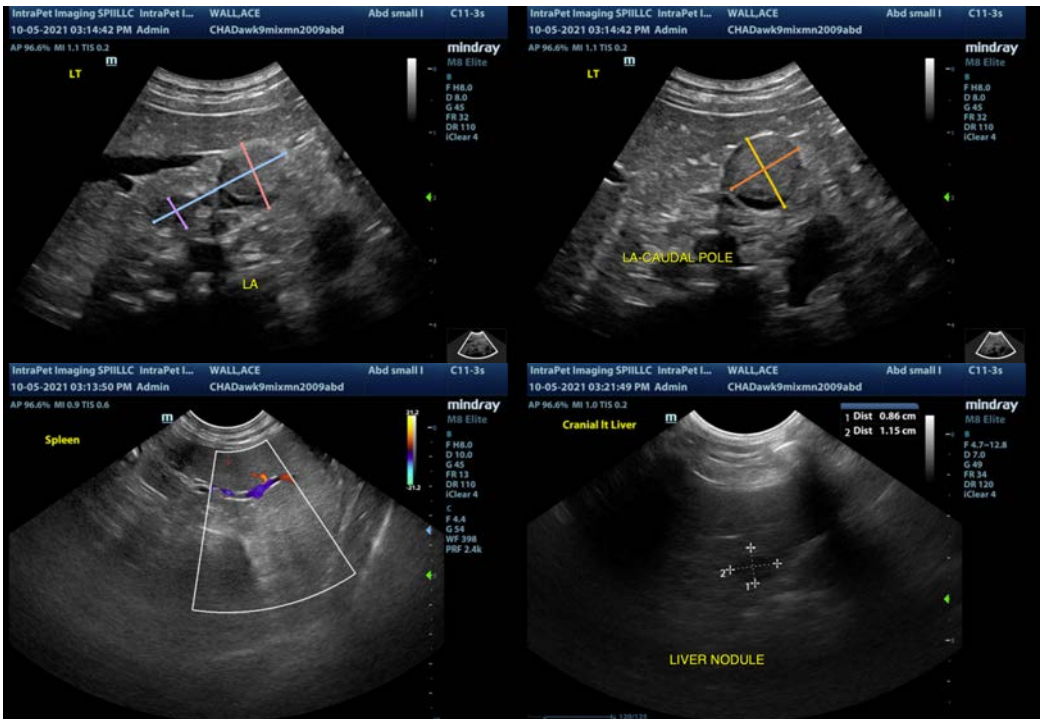
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

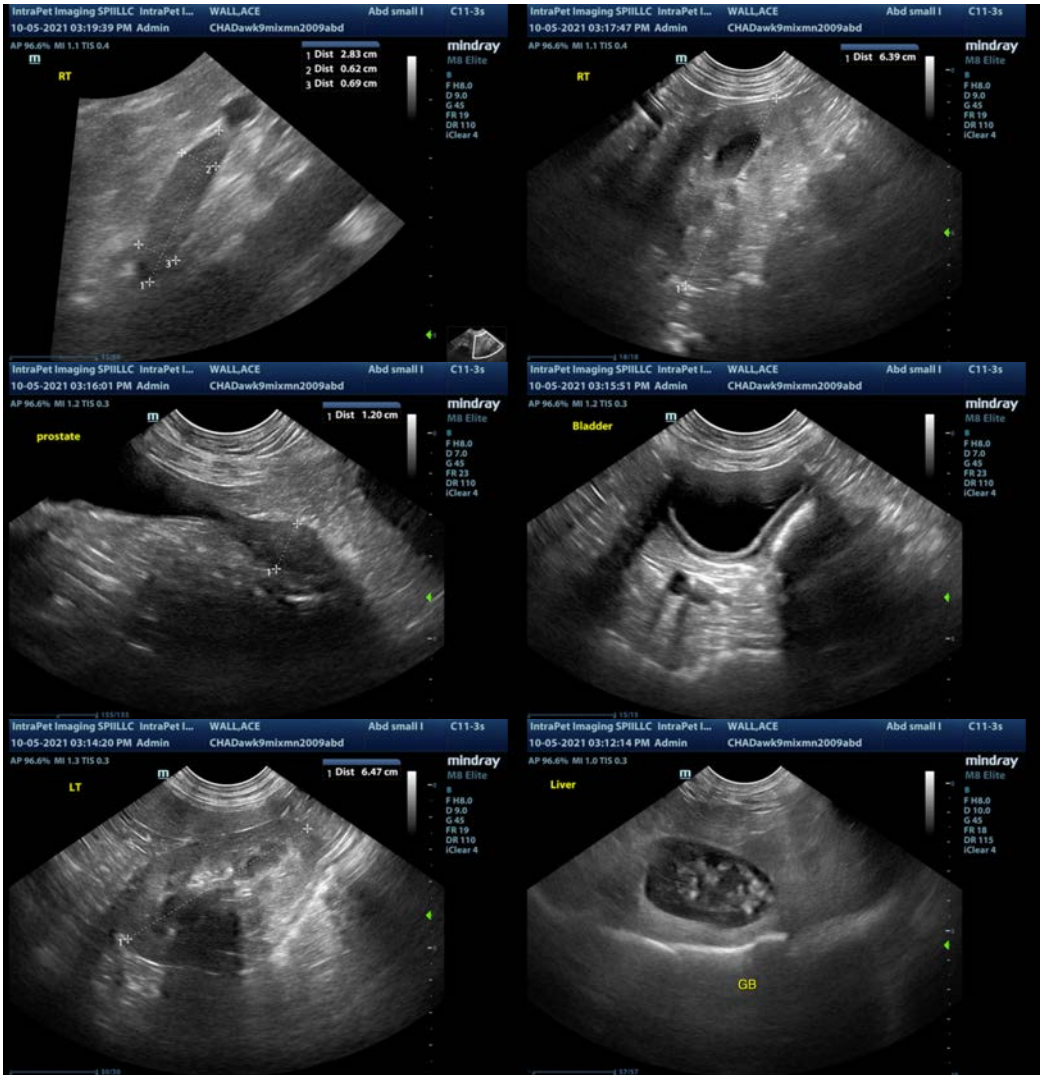
There is a nodule present involving the left adrenal gland. This mass is irregular and moderately enlarged. I do not see evidence of clear vascular invasion, but this is still possible. These masses can be benign or malignant and can secrete hormones or be non-active. Options moving forward include:

- If signs of cushings are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)
- If adrenal dependent cushings is suspected and supported by adrenal function testing consider medical therapy with lysodren or trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication
- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma
- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.
- If no symptoms of cushings are present, consider either referral for surgery or if surgery is not an option close monitoring with ultrasound (initially every 4-8 weeks, then increase interval if stable) and blood work.
- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

I suspect the changes reported in the liver are due to hormone influences, but a primary hepatopathy is possible. You could consider a fine needle aspirate of the liver +/- liver function test.

It would be unusual to see weight loss with an adrenal mass such as this. If diet was changed due to the acute gastroenteritis episode, make sure there has not been a caloric reduction. Additionally, ultrasound can be insensitive in picking up small intestinal disease such as IBD, malabsorption, GI parasitism, bacterial dysbiosis, food allergy, intestinal neoplasia, etc. If primary GI disease is suspected, recommend GI panel with PLI, TLI, cobalamin and folate, and surgical biopsies may be necessary to obtain a diagnosis.





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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