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DATE PRESENTING CLINICAL SIGNS

1/18/22

Diarrhea with Blood. Vomiting. History: Date: 01-18-2022 Notes: They have had Patton for about 6 years; came from a rescue and was estimated to be around 5 years old at the time. About 2 months ago (early November) Patton had an episode of vomiting and appetite loss; they took to Towson ER; he was diagnosed (via xrays and ultrasound) with a splenic mass, possibly hemangiosarcoma. Opted to not do surgery at that time given poor prognosis even with surgery and his age. He recovered from his GI upset quickly at that time and has been doing well at home since then, until last night. Ate dinner around 4 pm, then had some diarrhea yesterday evening; more overnight and vomited a few times overnight. Not interested in eating today and very depressed and shaking.

PATIENT

Patton Mucci

SPECIES

Canine

BREED

Labrador

SEX

Neutered Male

AGE

2011

Assessment: known splenic mass; r/o hemangiosarcoma vs benign mass; bleeding or infection of mass; anemia, pancreatitis, gastroenteritis.

Current Medications: Buprenorphine 0.6mg/mL, Maropitant Citrate (Cerenia) 10mg/mL Solution Injection, and Amp/Sulb (Unasyn) 1.5gm Injection (Per mL).

Lab Results: pending

Date of Previous IntraPet Ultrasound: no previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

WEIGHT

71.4 Pounds

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone and ureteral papillae largely appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi. In the proximal urethra/cystourethral junction, there is a hyperechoic, somewhat irregular, likely soft tissue structure measuring 0.87 cm x 0.58 cm. This has a soft shadow and could be consistent with some mildly mineralized debris, focal tissue, etc.

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 (7.49 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 (7.83 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 0.85 cm at the cranial pole, 2.04 cm at the caudal pole, and 3.95 cm in length. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that the caudal pole is enlarged, measuring 2.84 cm x 2.01 cm. There is no obvious evidence of vascular invasion. Findings are most consistent with a mass effect in the caudal pole of the left adrenal gland.

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brillhart RDMS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Willer

INVOICE

34355

The right adrenal gland is normal in size measuring 0.73 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 large 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 very large cranial/mid abdominal solid, mildly hypoechoic mass that appears to be arising from the spleen. There is no surrounding free fluid noted.

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 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. 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 non-formed fecal material. 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 generally of normal uniform echogenicity.

Other

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

ULTRASONOGRAPHIC FINDINGS

- Large, solid splenic mass – A focal, solid, mixed echogenic mass is present within the splenic parenchyma. This mass distorts the splenic capsule. Differentials include benign lesions such as lymphoid hyperplasia, hemangioma, etc., or neoplastic lesions such as hemangiosarcoma, lymphoma, histiocytic sarcoma, etc.

- Left-sided adrenal mass – Left/right adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.
- Irregular structure at the cystourethral junction – This could be consistent with focal attached debris or tissue. Recommend urinalysis and culture. Consider passing a urinary catheter to see if this area persists, or if it can be detached. If it cannot be detached, you could consider sampling in this area with the urinary catheter (traumatic or atraumatic).

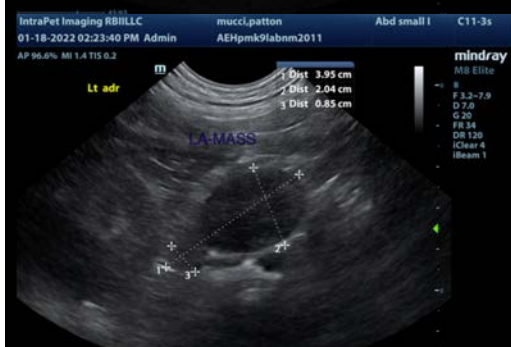
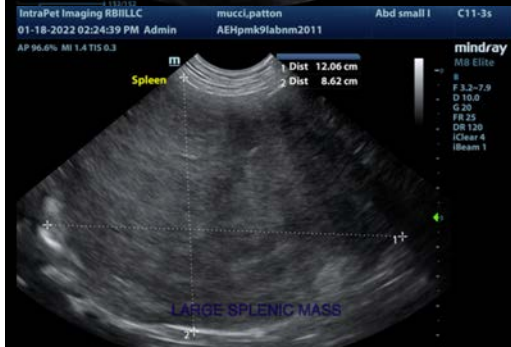
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a very large splenic mass visualized. This could be benign or malignant. There is no cavitation, and no evidence of rupture. Recommend splenectomy for both diagnostic and therapeutic purposes provided. 3-view thoracic radiographs are normal.

There is a mass present involving the left adrenal gland. This mass has fairly regular margins, and 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 Cushing's 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 Cushing's 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 Cushing's are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.
- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion. Some aggressive tumors can grow quickly, and there is risk for acute hemorrhage from vascular invasion, while others can be relatively benign.

Recommend urinalysis and culture with continued monitoring of the urinary bladder to try to determine if the visible soft tissue opacity in the proximal urethra is tissue or debris. While there are several significant lesions on today's scan, they all could be unrelated to the presenting issue of diarrhea with blood. No colonic lesions were visualized, but there is unformed stool evident within the colon. Recommend symptomatic therapy for colitis prior to addressing these matters.





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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