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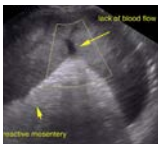
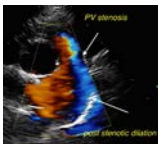
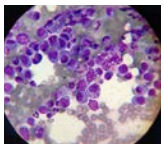
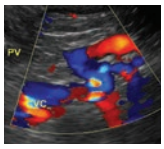





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Nala Alejandro

SPECIES
Canine

BREED
Pit Bull

SEX
Female

AGE
9 Years

WEIGHT
65.8 Pounds

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

IMAGING PERFORMED BY
Dr. Ferrer, DVM

HOSPITAL NAME
Paseos Vet Center

REFERRING VET
Dr. Trinidad

INVOICE
34115

DATE
1/11/22

PRESENTING CLINICAL SIGNS

Presented as a referral for an abdominal ultrasound. The patient went for a consult for a bloated abdomen a week ago to the referring veterinarian. Still eats, defecates, and urinates well. X-rays were taken and a mass adhered to the left kidney is suspected.
Abnormal PE/Chem/CBC/UA Results: CBC done on 1/5/2021 presented anemia (Low RBC, Hct, and Hgb values) , Leukopenia (lymphopenia, eosinopenia), and thrombocytopenia. Creatinine and BUN: WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The Bladder wall is diffusely thickened and slightly irregular, measuring 0.41 cm in diameter. The area of the trigone, ureteral papillae and proximal urethra (to a depth of 2cm) appear free of any evidence of calculi or mass effects. Changes observed with the bladder wall are most consistent with diffuse cystitis or lack of urine distention.

The left kidney has a normal shape and size (6.83 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.

The right kidney has a normal shape and size (6.51 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 region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

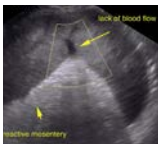
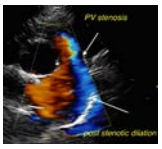
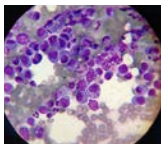
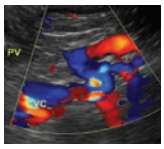
The right adrenal gland is normal in size measuring 0.50 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The liver is large in size, and normal in 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. In general, the spleen is very thickened, mottled and irregular. Towards the tail of the spleen, there appears to be a fold leading to a large, solid mixed echogenicity mass effect, which is lying in the cranial abdomen, measuring >11.14 cm x 11.71 cm. This mass effect is large enough to displace and obscure adjacent structures. I cannot 100% exclude the possibility of liver origin, but suspect strongly it is splenic.

Liver

The liver is large in size, and normal in 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 hepatic lesions are observed. There is a large cranial abdominal mass, which I suspect to be of splenic origin. This mass effect contacts the liver in several areas. Therefore, I cannot 100% exclude possible hepatic origin.

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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 mild 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 ingesta and gas. The wall largely appears normal, measuring 0.26 cm 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. Most of the shadowing irregularities observed within the stomach lumen appear to be intraluminal rather than associated with the gastric wall, but I cannot exclude the possibility of a pedunculated mass effect with a narrow connection to the wall, which was not observed. Correlate with abdominal radiographs, consider serial imaging to try to differentiate intraluminal debris from foreign material/mass effect.

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 wall measured 0.43 cm. Jejunum wall measured 0.21 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 formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering. Colon wall thickness measured 0.19 cm.

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

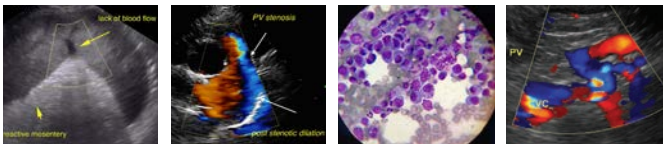
Evaluation of the peritoneal cavity did not reveal any evidence of effusion. The iliac lymph nodes are prominent, but appear normal, measuring 0.75 cm and 0.61 cm in width. The omentum is of normal echogenicity.

PRIMARY FINDINGS

- Large, solid, mixed echogenicity cranial abdominal mass – This mass effect is most likely of splenic origin. The spleen itself is large and irregular. 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.

- Large, 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. While the cranial abdominal mass appears to be of splenic origin, hepatic origin cannot be completely excluded.

- Suspected intraluminal shadowing gastric material – Most consistent with ingesta, pills, kibble, etc. Correlate with medication history, abdominal radiographs, etc. The gastric wall appears largely normal, but I cannot exclude the possibility of an atypical pedunculated mass effect. Differentials could include delayed gastric emptying and/or partial outflow tract obstruction



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(none observed) if this is retained ingesta.

SECONDARY FINDINGS

- Mildly thickened, irregular urinary bladder wall – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.

- Mild 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 large, solid, mixed echogenicity mass effect in the cranial abdomen. I suspect this is of splenic origin, as there appears to be a connection to the spleen, and the spleen itself is large and similarly irregular. Unfortunately, with a mass this large, you cannot completely exclude the possibility of hepatic origin, as the mass effect does touch the liver and other organs in several places. Consider a fine needle aspirate of the mass effect, or referral to a veterinary surgeon for abdominal explore with the knowledge that additional lesions could be present.

There is shadowing material visualized within the gastric lumen. This has the characteristics most consistent with kibble or pills and meatballs, etc., as I cannot visualize a direct connection to the gastric wall, but if this was pedunculated mass, etc., this could be possible. It can helpful to color flow these areas to determine if there is any evidence of vascularity, as foreign material should not "light up". Recommend correlation with abdominal radiographs (possible serial radiographs) to look for gastric emptying, and you could even give a small amount of barium and follow to see if it adheres to the material, and if it eventually passes.

With the pancytopenia reported (numbers not provided), there could be concern for bone marrow issues, infiltrative neoplasia, etc. A surgical referral could be both diagnostic and therapeutic, but if these numbers are very low, and surgery is considered unsafe, you could consider fine needle aspirate and a bone marrow sampling in addition to testing for tick borne disease (canine comprehensive panel to NC State's vector borne disease lab) is ideal. Additionally, you could consider a pathologist review of CBC and a blood smear to look for atypical cells, etc., as this could represent lymphoma. Recommend 3-view thoracic radiographs.

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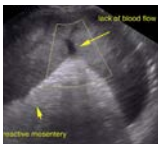
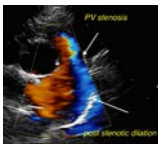
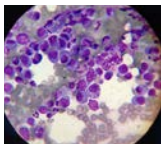
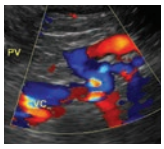

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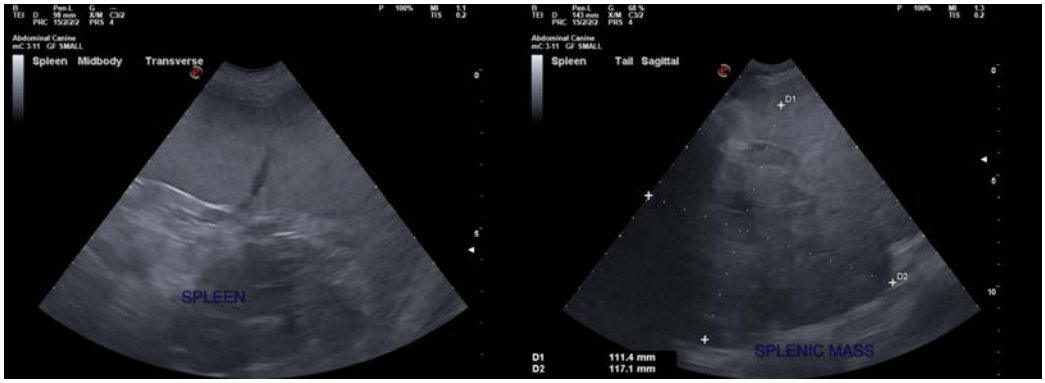

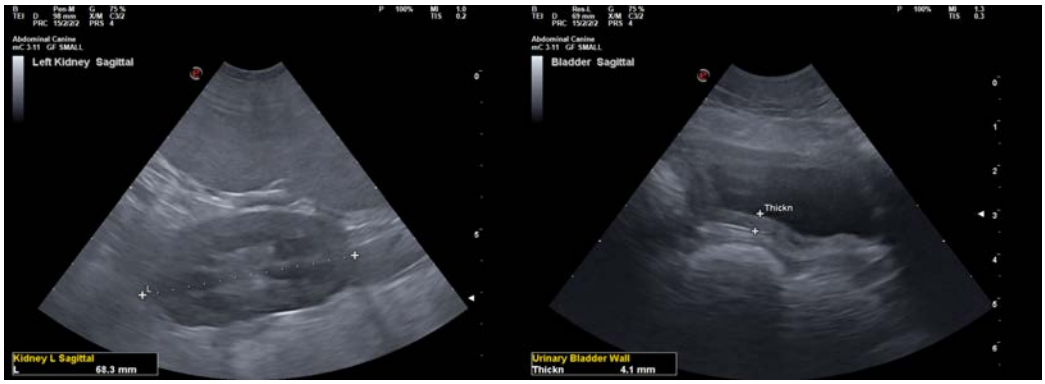

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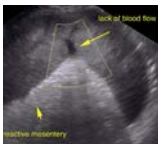
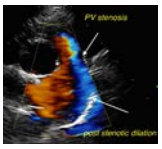
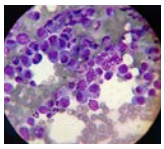
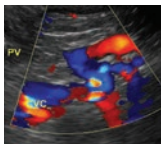

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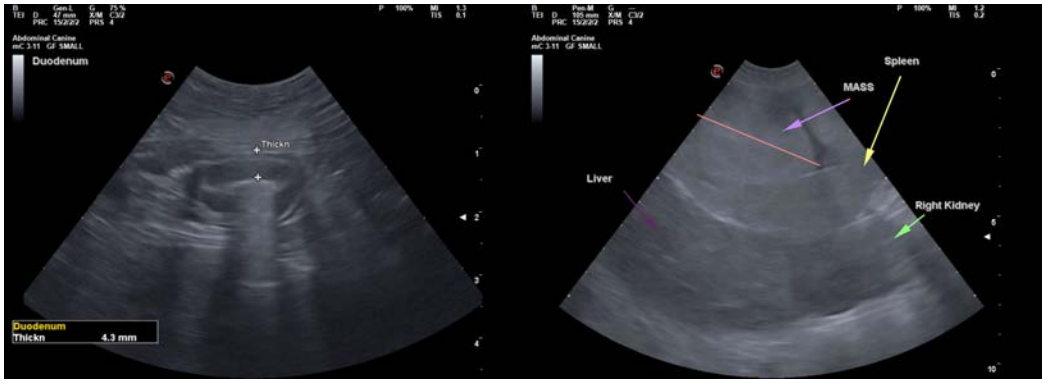

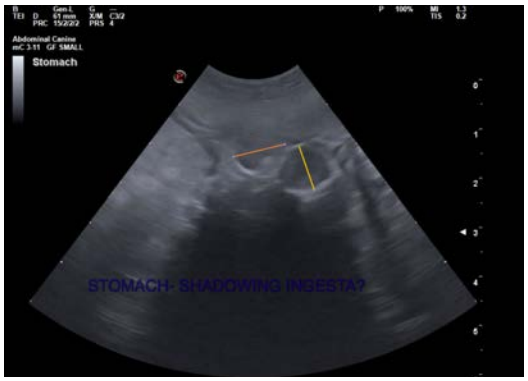

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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