SonoPath
Clinical Sonography & Telecytology
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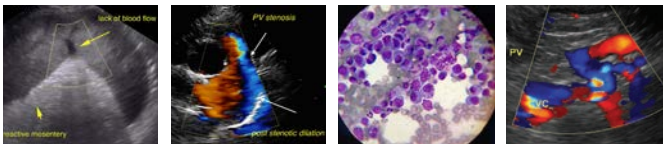


SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Winston Burman

SPECIES
Canine

BREED
Cavalier King Charles

SEX
Neutered Male

AGE
13 Years 7 Months

WEIGHT
24.6 Pounds

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

IMAGING PERFORMED BY
Dr. Gillian Striano-Kaplan

HOSPITAL NAME
Ramsey Vet Hospital

REFERRING VET
Dr. Gillian Striano-Kaplan

INVOICE
24973

DATE
8/26/21

PRESENTING CLINICAL SIGNS

Weight loss, lethargy, hx of CHF, hx of azotemia. FNA caudal abdominal mass fat on IH cytology Abnormal PE/Chem/CBC/UA Results: 8/23 BW: SDMA: 23H, BUN: 70H, PHOS: 9.2H, ALP: 2473H, CHOLEST: 377H, LIPASE: >1800 CRIT_HIGH, FREE T4(ng/dL): 0.4L, FREE T4 pmol/L): 5.1L RBC: 4.95L, HGB: 11L, HCT: 33.4L, PLATELET: 117L - ANISOCYSTOSIS REMARKS: slight 4DX pending

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, or masses. There is a thin line of dependent shadowing debris present, consistent with sandy debris or small stones.

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 (6.0 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 infarcts or hydroureter. There are numerous small non obstructive nephroliths/mineralizations present and pyelectasia at 0.35 cm. Renal vasculature is normal.

The right kidney has a normal shape and size (6.13 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 infarcts or hydroureter. There are numerous small non obstructive nephroliths/mineralizations present and pyelectasia at 0.29 cm. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal 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.

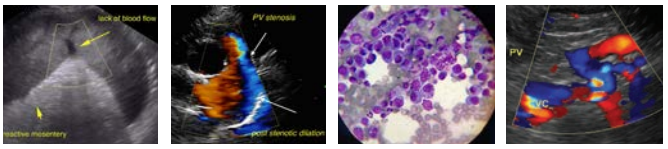
The right adrenal gland is normal in size measuring 0.69 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size. The spleen echotexture is heterogenous and mildly mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is an ill-defined, somewhat mixed echogenic, hypoechoic lesion in the mid body of the spleen measuring 2.3 cm x 1.2 cm. This minimally impacts the splenic capsule, and the vasculature appears normal.

Liver

The liver is large in size with irregular margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are rare, ill-defined, small hyperechoic nodules seen throughout the parenchyma.



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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 large amount of non-organized echogenic debris. There is evidence of mild to moderate bile duct dilation with gallbladder sludge within the duct.

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. Jejunum wall measures 0.33 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.

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

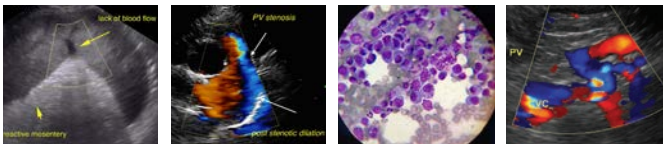
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

There is a caudal abdominal mass visualized measuring 6.84 cm x 3.93 cm. This mass is isoechoic to surrounding mesentery with the characteristics of a lipoma.

ULTRASONOGRAPHIC FINDINGS

- Mottled spleen with an ill-defined mixed echogenic mass effect – differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to obtain a definitive diagnosis.
- Heterogeneous liver with indistinct hyperechoic nodules – 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.
- Large amount of gallbladder sludge with mild bile duct dilation – no focal obstruction observed, but there is evidence of bile sludge within the bile duct.
- Decreased corticomedullary distinction in both kidneys with mild pyelectasia and non-obstructive nephroliths – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to



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PU/PD or fluid therapy (if applicable), other. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Echogenic debris in the dependent portion of the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus. Recommend urinalysis and culture.

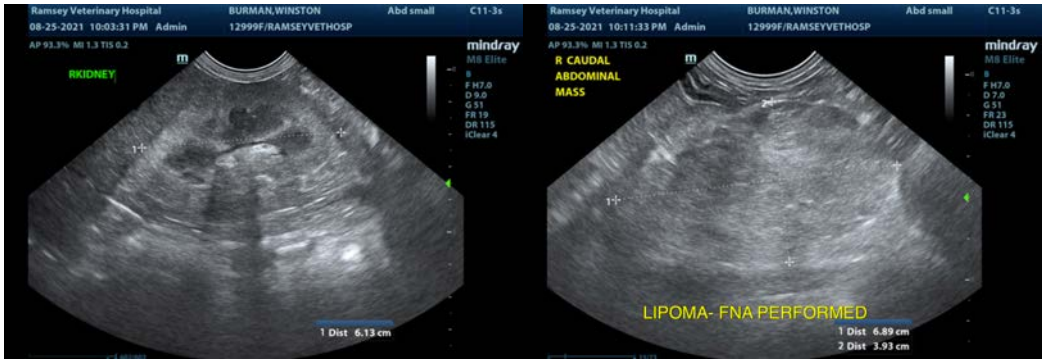
- Isoechoic caudal abdominal mass – fine needle aspirate performed at the time of ultrasound, consistent with a lipoma.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The renal changes observed are consistent with chronic progressive renal disease Recommend urinalysis and culture in addition to blood pressure evaluation and urine protein/creatinine ratio. The reported anemia could be due to chronic renal failure or due to secondary GI loss. Consider gastroprotectants (sucralfate, omeprazole, etc.). Consider nausea medication and appetite stimulant to symptomatically manage this issue.

Additionally, the liver is large and heterogeneous. This can be seen with mild Cushing's disease, a primary vacuolar hepatopathy, or an inflammatory condition. You could consider a liver function test +/- a fine needle aspirate of the liver. If signs of Cushing's are present, you could consider endocrine function testing. Additionally, there is significant gallbladder sludge present. I recommend starting Ursodiol and monitoring the gallbladder with ultrasound.

There is a lesion visualized within the spleen. This could be benign or malignant. Recommend fine needle aspirate of the splenic lesion to help decide if splenectomy is recommended. Recommend 3-view thoracic radiographs. Recommend cardiac ultrasound if not recently done.



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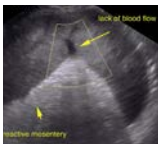
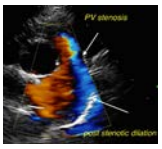
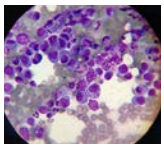
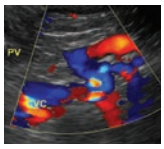

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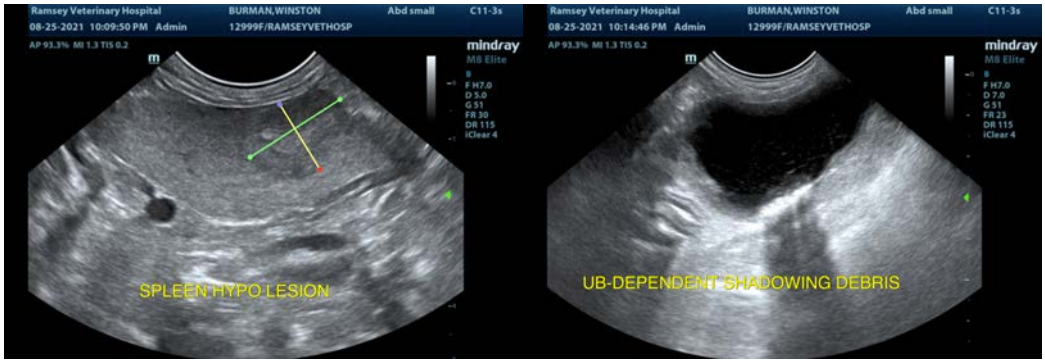

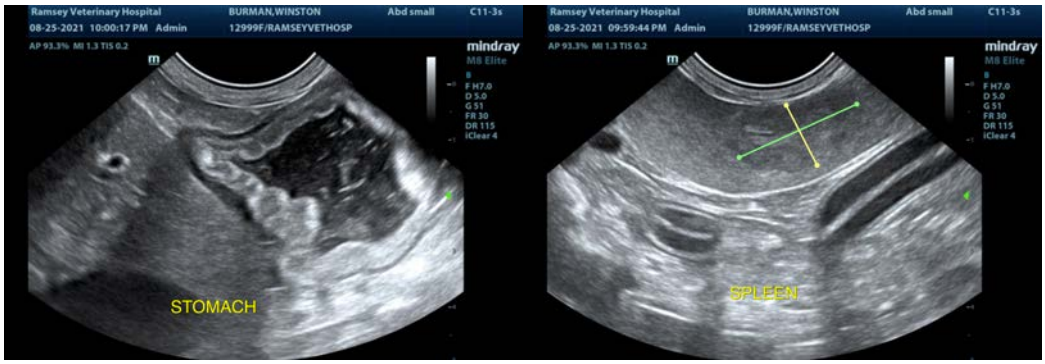

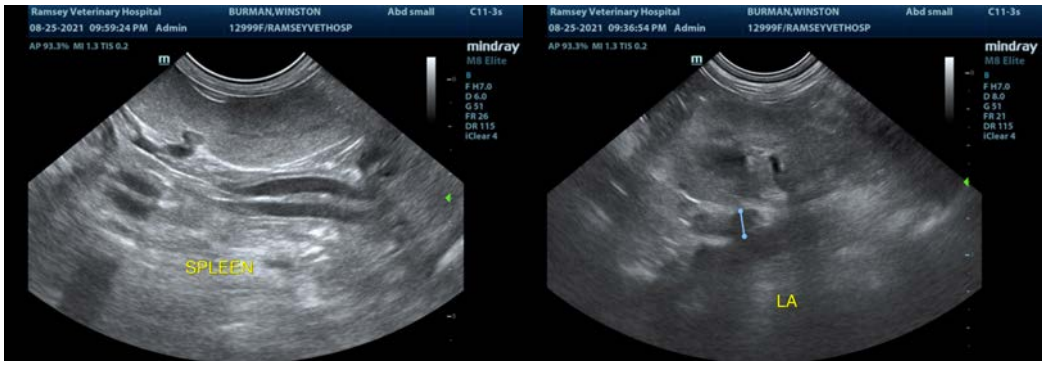

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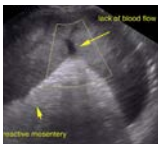
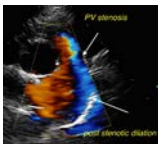
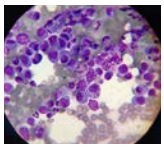
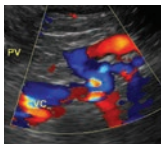

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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