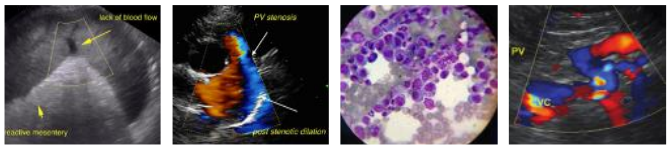
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Buster Hicks

SPECIES

Canine

BREED

Wheaton Terrier

SEX

Neutered Male

AGE

13 Years

WEIGHT

37 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Any Mayhew, LVT

HOSPITAL NAME

SVS Imaging MI

REFERRING VET

Airport VH

INVOICE

16396

DATE

6/29/22

PRESENTING CLINICAL SIGNS

History: Not eating well

Abnormal PE/Chem/CBC/UA Results: We did blood work today, results should be back tomorrow, nothing remarkable upon exam, pet has a history of pancreatitis and urinary problems. **Please see attached BW Abnormal spec PL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.46 cm thick). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

The bilateral kidneys are normal in size and contour. A relatively uniform hyperechogenicity is observed with mildly decreased corticomedullary distinction. There is no pyelectasia noted and no mineral is observed. No overt masses/nodules are observed. The left kidney measures 5.35 cm. The right kidney measures 5.27 cm.

Adrenal Glands

Left adrenal gland is enlarged in size (1.0 cm at cranial pole and 1.8 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. IN the caudal pole of the left adrenal gland, there is an approximately 1.0 cm round heterogeneous nodule that results in capsular expansion with some suspicion for capsular escape. Vascular invasion is not evident in these images but cannot be ruled out. Periadrenal vasculature is distorted in shape due to compression from the adrenal mass.

Right adrenal gland is normal in size (0.84 cm at cranial pole and 1.1 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. A small non capsular expanding hyperechoic nodule in the caudal pole that measures 1.0 cm x 0.8 cm. Visible surrounding vasculature appears normal.

Spleen

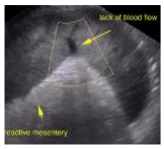
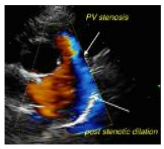
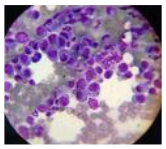
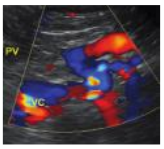
Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

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The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no appreciable free fluid noted in these images.

Medial iliac lymph nodes are prominent in size with swollen capsular contour. Normal elongated shape (length to width ratio) is maintained. There is no loss of parenchymal detail.

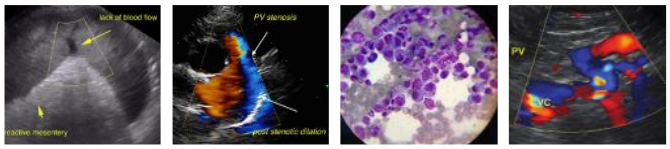
ULTRASONOGRAPHIC FINDINGS

Primary Findings

- A left adrenal mass, most concerning for an emerging neoplasia, such as adenocarcinoma or pheochromocytoma. A benign adenoma is possible but considered less likely given the change in normal architecture appreciated. A small hyperechoic right adrenal nodule, differentials for which are more likely to be benign change, such as a myelolipoma, adrenal hyperplasia, incidental nonfunctional nodule, etc. Cortical adenoma, adenocarcinoma, pheochromocytoma, etc. are possible but considered much less likely in the right adrenal gland.
- Nephritis – This appearance can be consistent with chronic interstitial nephritis or glomerulonephritis. Toxic insult and/or infectious disease (pyelonephritis, Leptospirosis, etc.) cannot be ruled out. This finding should be interpreted in combination with suspicion for renal disease and/or supporting laboratory or urinalysis changes.

Secondary Findings

- Chronic Cystitis - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.
- Gallbladder debris (canine) - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.



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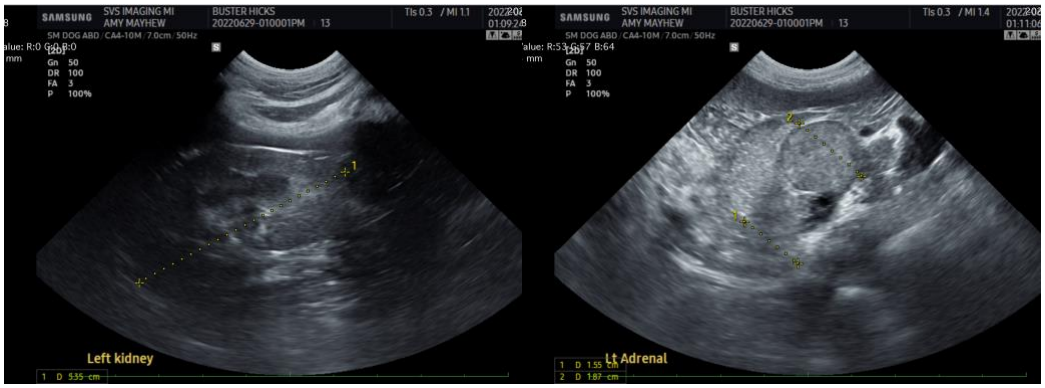
- Reactive medial iliac lymph nodes – infiltrative neoplastic disease cannot be ruled out but is considered less likely

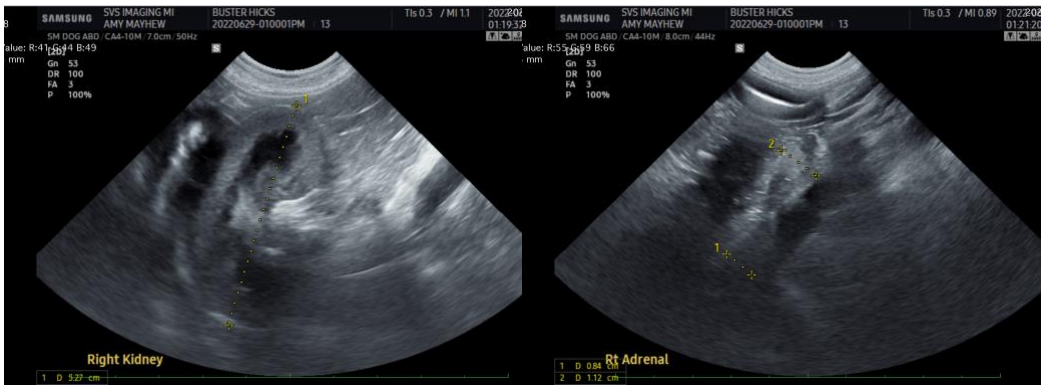
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most significant pathology in this ultrasound appears to be the left adrenal mass, however, that could be an incidental finding and not related to the patients decreased appetite. Given the mild azotemia, the appearance of the kidneys, decreased appetite, etc., recommendations are to further evaluate the urinary tract and gastrointestinal tract with testing for Leptospirosis, if not recently evaluated, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function. Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended. Blood pressure is recommended, if not recently evaluated.

Ultimately, given the results of the recommended work up, as well as patient response, etc., if an aggressive approach is elected and histologic diagnosis of the left adrenal gland is desired, a left adrenalectomy is necessary. A presurgical planning abdominal CT scan could be considered for further evaluation of vascular invasion, etc.

In the meantime, given this patients history of pancreatitis, while pending results, empirical medical management of pancreatitis/gastroenteritis with antiemetics, gastric protectants, appetite stimulants, hydration support, pain management (as indicated), etc. is recommended.





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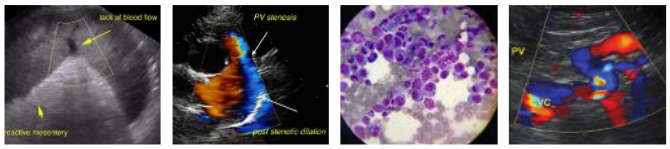

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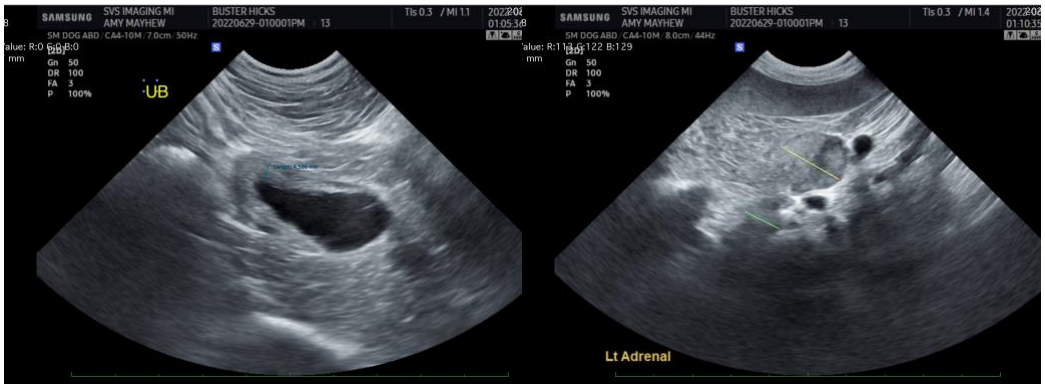

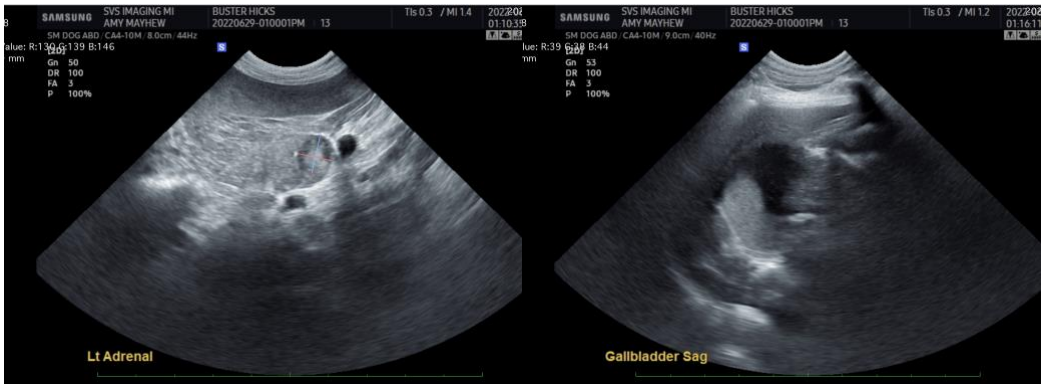

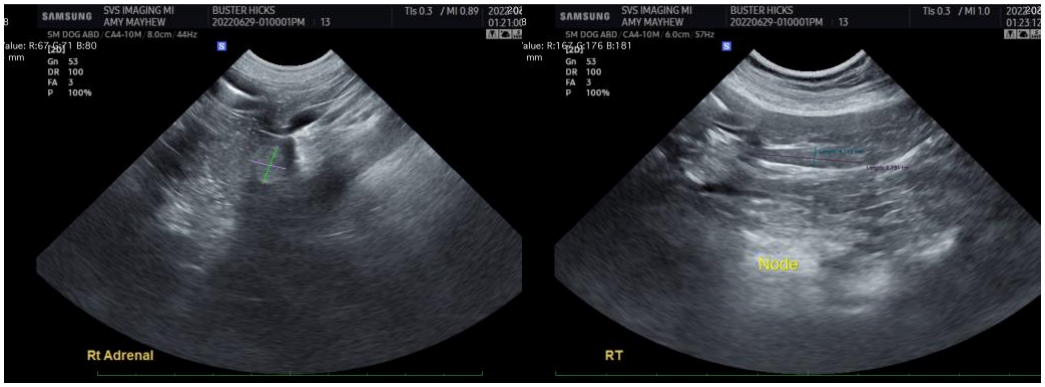

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com