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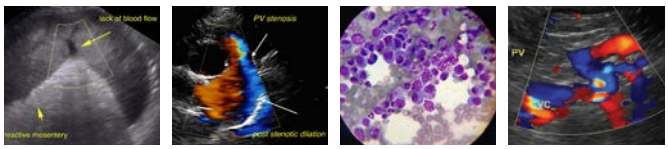

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1-800-838-4268 info@sonopath.com

PATIENT
Crystal McCandlish

SPECIES
Canine

BREED
Australian Blue Heeler Mix

SEX
Spayed Female

AGE
10 Years

WEIGHT
30 kg

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Dr. Brittany Gardner

HOSPITAL NAME
Wilvet Salem

REFERRING VET
Dr. Brittany Gardner

INVOICE
46773

DATE
4/20/23

PRESENTING CLINICAL SIGNS

She started vomiting 3 days ago (mostly food). Was active yesterday (chasing a neighbor) but today is uncoordinated in the back end. Normal eats Fresh Pet, owner did change to Buffalo around a week ago. Was concerned she may have ingested some poultry feed.

Abnormal PE/Chem/CBC/UA Results: Chem 17:Ca 12.7 ALP > 2000 GGT 73 TBili 19 Chol 433, ALT 2422, PCV 40% T.S. 8.8 g/dl -Coag panel = normal PT and PTT -U/A complete = USpG 1.026 (pu/pd?), RBC's 34phpf, WBC 2 phpf Manual strip for = Hgb 3+, Bil 3+, protein 3+, pH 7

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (6.36 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.08 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is unable to be well visualized in these images.

The left adrenal gland is plump/swollen in size (0.67 cm at the cranial pole, 1.7 cm at the caudal pole). Normal shape and contour are maintained without evidence of capsular invasion. Primarily in the caudal pole, there is some parenchymal heterogenicity and mineral density. 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). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. 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 mild 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.

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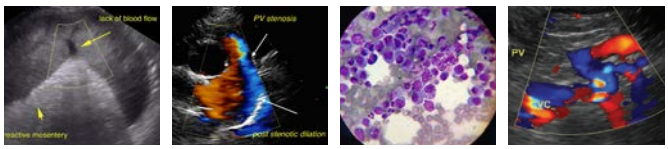

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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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 mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- **Left adrenomegaly with a non-visualized right adrenal gland –** This is difficult to fully interpret. However, this could be consistent with an adenoma or possibly hyperplasia secondary to pituitary dependent hyperadrenocorticism. Adenocarcinoma and/or even less likely pheochromocytoma are possible but low on the list of differentials. This finding should be interpreted in combination with clinical signs of hyperadrenocorticism and/or other adrenal disease.

- **Hyperechoic hepatomegaly -** This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.

- **Mild gallbladder debris -** 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.

- **Hyperechoic splenic nodules –** most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.

- Urinary bladder debris

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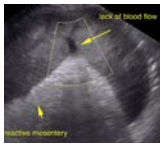
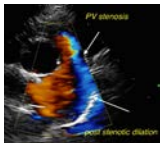
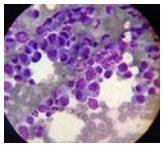
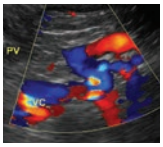

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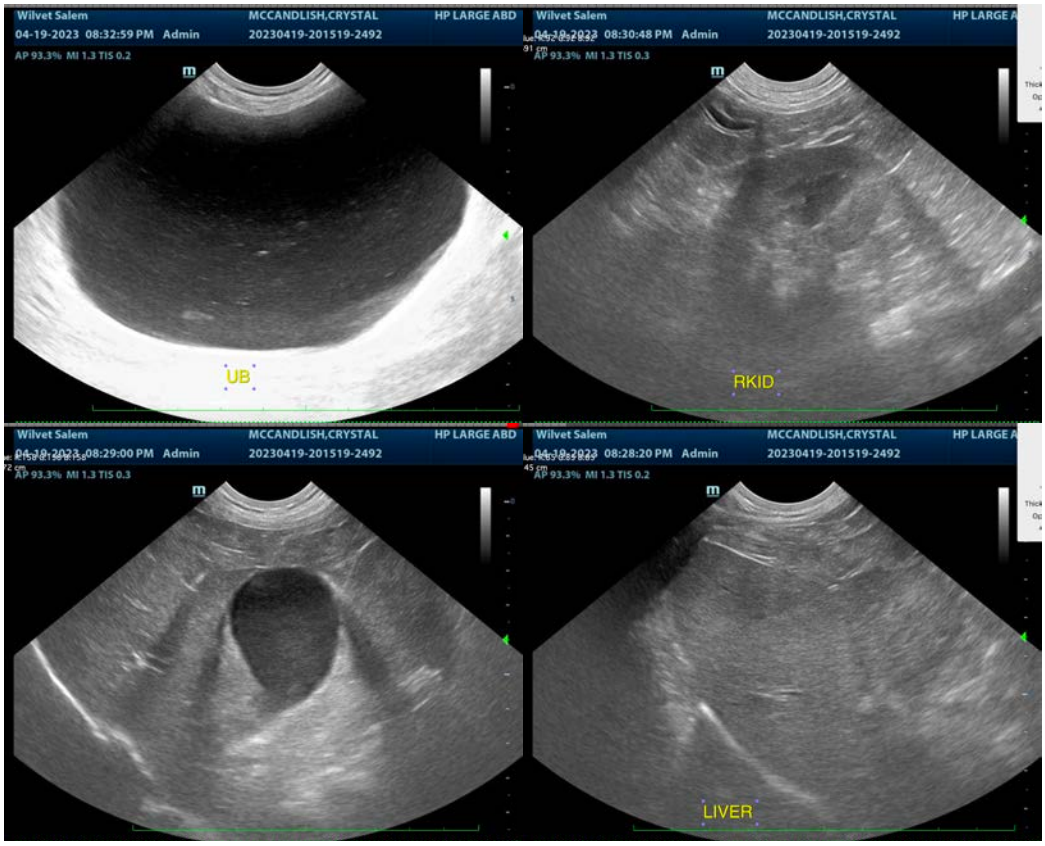
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given this patient's reported hypercalcemia, further investigation of hypercalcemia is recommended, beginning with a thorough rectal and perianal exam and lymph node palpation if not already evaluated, as well as a malignancy panel to include PTH, PTHrP, and ionized calcium.

In the meantime, additionally, given the marked liver enzyme increases, testing for Leptospirosis is recommended as is a fine needle aspirate of the liver, since patient's coagulation status is reportedly normal.

Additionally, a blood pressure is recommended if not recently evaluated.

In the future, pending results of this evaluation, further evaluation of the adrenal nodule may be warranted, especially if this patient demonstrates clinical signs consistent with hyperadrenocorticism. However, further investigation isn't typically warranted in the face of concurrent illness due to the possibility for false positive results. Future adrenal investigation recommendations include visualization of the adrenal gland if possible and ultimately hormone testing, beginning with a low-dose Dexamethasone suppression test, again pending the results of the other more urgently recommended diagnostics.



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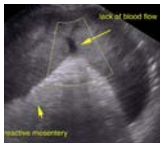
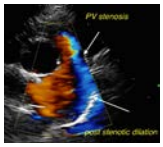
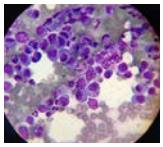
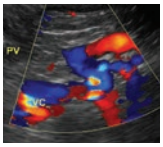

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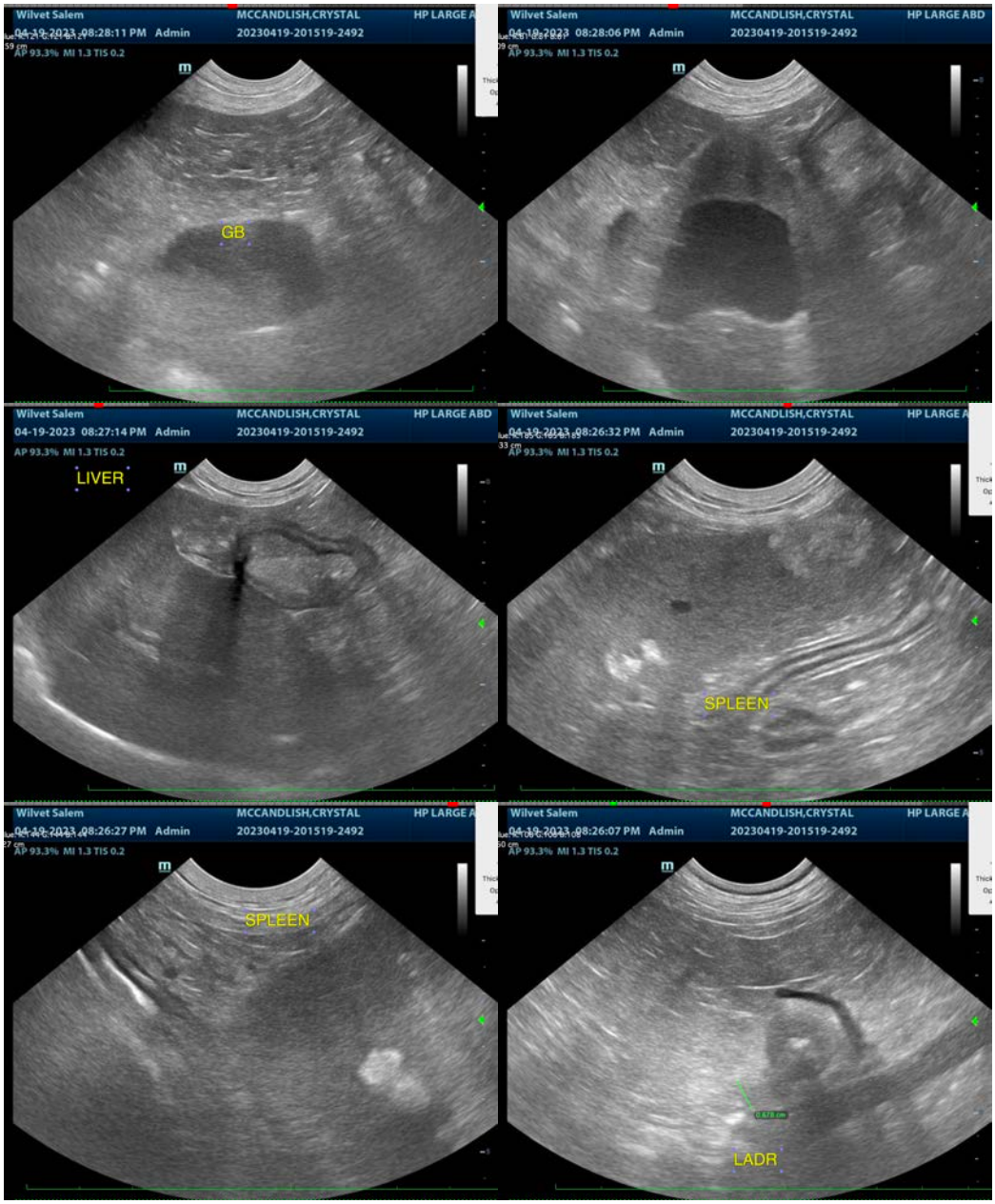

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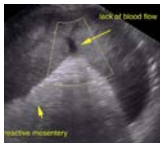
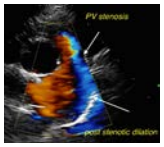
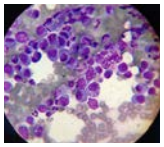
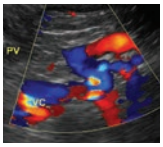

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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