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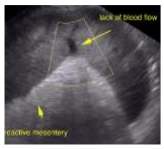
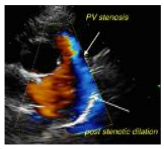
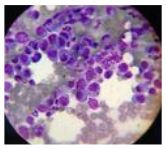
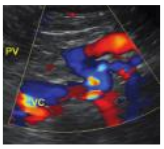
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Bizzy Kahler

SPECIES
Canine

BREED
Labradoodle

SEX
Spayed Female

AGE
9 Years

WEIGHT
20 kg

INTERPRETED BY
Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY
Erin Wicks

HOSPITAL NAME
Shores VEC

REFERRING VET
Dr. Lupole

INVOICE
21839

DATE
3/28/23

PRESENTING CLINICAL SIGNS

Presented at our hospital for vomiting and lethargy. This AM, P vomited once which was mostly food. Refused to eat anything for the entire day. P vomited a second time in the afternoon and O thought it was slightly red in color but couldn't see well to it being on carpet. Third and fourth vomits were on the hardwood floor and O was able to clearly see that there was increasing amounts of blood in them. P has been lethargic all day as well. Previous Health Concerns: None Current Medications: None Appetite/When did they eat last: not eating/ last ate yesterday PM

Abnormal PE/Chem/CBC/UA Results: Abdominal: Painful on palpation Radiographs – Fluid filled GIT, mild gastric distention, mild loss of serosal detail, no obvious FB CBC – HCT (69.5) HGB (26.2) Eos (0.04) PLT (102) RBC (9.73) CHEM – ALT (720) BUN (39.2) Creat (1.8) Glob (1.9) TP (4.3) Phos (6.3) Alb (2.4) Ca (8.9) EPOC – Lactate (5.96) HCT (73) Creat (1.92) BUN (failed) pH (7.289) Cortisol (4.2) WNL cPL – strong abnormal PT/PTT – BP – 171/94 (116) 167/94 (118) 171/96 (118)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal in size (6.62 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.

Right kidney is normal in size (6.16 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 left adrenal gland is enlarged (2.6 cm at cranial pole and 1.0 cm at caudal pole) with mild heterogenous parenchymal changes. Swollen capsular expansion is noted with some concern for capsular escape just caudal to the cranial pole. Vascular invasion is not visualized but can't be definitively ruled out.

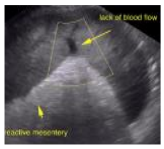
The right adrenal gland is unable to be well visualized in these images.

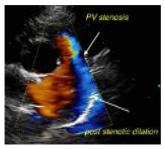
Spleen

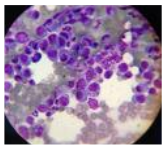
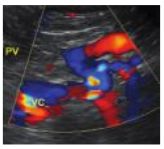
Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

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.





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Gallbladder is moderately distended with anechoic bile as well as mild to moderate 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

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic fluid, as well as some non-shadowing luminal contents and gas consistent with fluid and normal chyme. 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 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

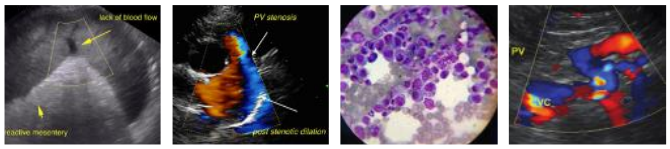
There is a very scant amount of anechoic free fluid. No lymphadenopathy is noted. The mesenteric fat is diffusely hyperechoic/enhanced.

ULTRASONOGRAPHIC FINDINGS

- Left adrenal mass is difficult to fully interpret without being able to see the right adrenal gland, but the right adrenal gland is presumably small/flat, making it hard to visualize, which supports an adrenal adenoma or given the suspicion for vascular escape, an adrenal adenocarcinoma as top differentials. A pheochromocytoma, however, also cannot be ruled out. Normal patient variant, stress or adrenal hyperplasia are all possible, but considered less likely.
- Mild to moderate 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.
- Fluid distended stomach is most consistent with gastric stasis or ileus, secondary to an underlying metabolic condition. Partial outflow obstruction is possible but considered less likely. The diffusely enhanced mesenteric fat is suggestive of diffuse inflammation and could be secondary to a gastroenteritis/hemorrhagic gastroenteritis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the presence of an adrenal mass, further evaluation of adrenal hormone status, etc., is recommended, however, it would be unusual for that finding to be the cause of the presenting clinical



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signs of hematemesis and the associated laboratory changes reported. Therefore, prior to further work up of adrenal disease, further evaluation of gastrointestinal health and the increased ALT is recommended, beginning with testing for Leptospirosis (if not recently evaluated), and followed by gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory, for further evaluation of GI and pancreatic function, and a fecal enteropathogen PCR panel to Texas A&M GI Laboratory, for further evaluation of possible infectious disease.

Additionally, given the combination of gastrointestinal signs and liver enzyme increases, close evaluation for possible toxin exposure is recommended.

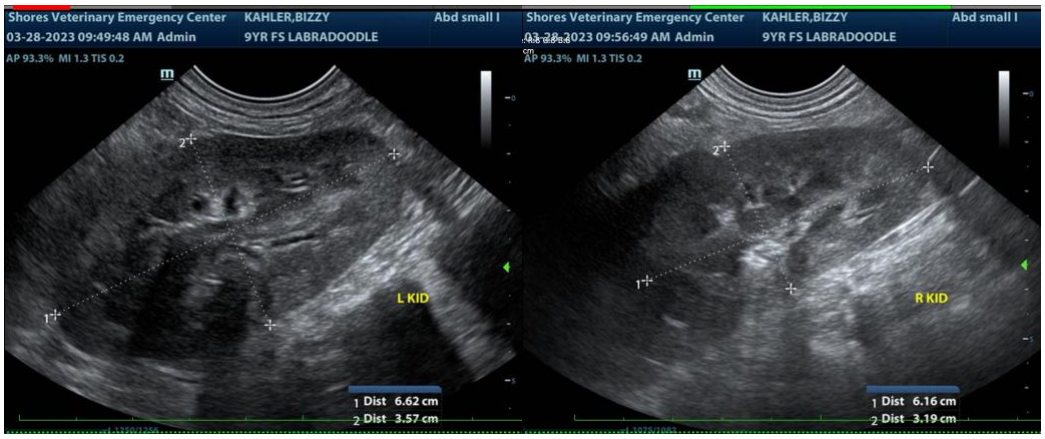
In the meantime, supportive/symptomatic medical management of clinical signs, possibly HGE, is recommended, including antiemetics, gastroprotectants (including Sucralfate), a probiotic, such as Visbiome or Proviable, empirical deworming with a 5-day course of Panacur, +/- an empirical course of therapy for helicobacter. Additionally, if tolerated, a short-term course of a bland easy-to-digest, or possibly fiber responsive diet, could be considered.

Given the increased ALT, broad spectrum antibiotics and hepatic nutraceuticals are also a reasonable empirical option.

Depending on patients clinical signs, improvement vs progression, etc., ultimately, further evaluation of the stomach via gastroscopy for further visualization, as well as biopsies may ultimately be warranted.

Eventually, once this patient is stable, circling back to the adrenal mass is recommended, beginning with a LDDST, and pending results of that, urine catecholamine testing.

Ultimately, a left adrenalectomy may be the treatment recommendations made, in which case, a presurgical planning abdominal CT scan would also be valuable.



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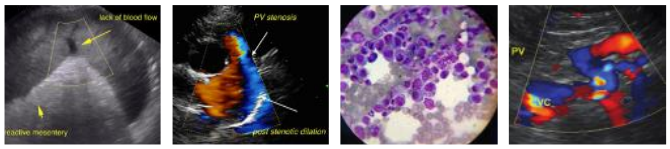

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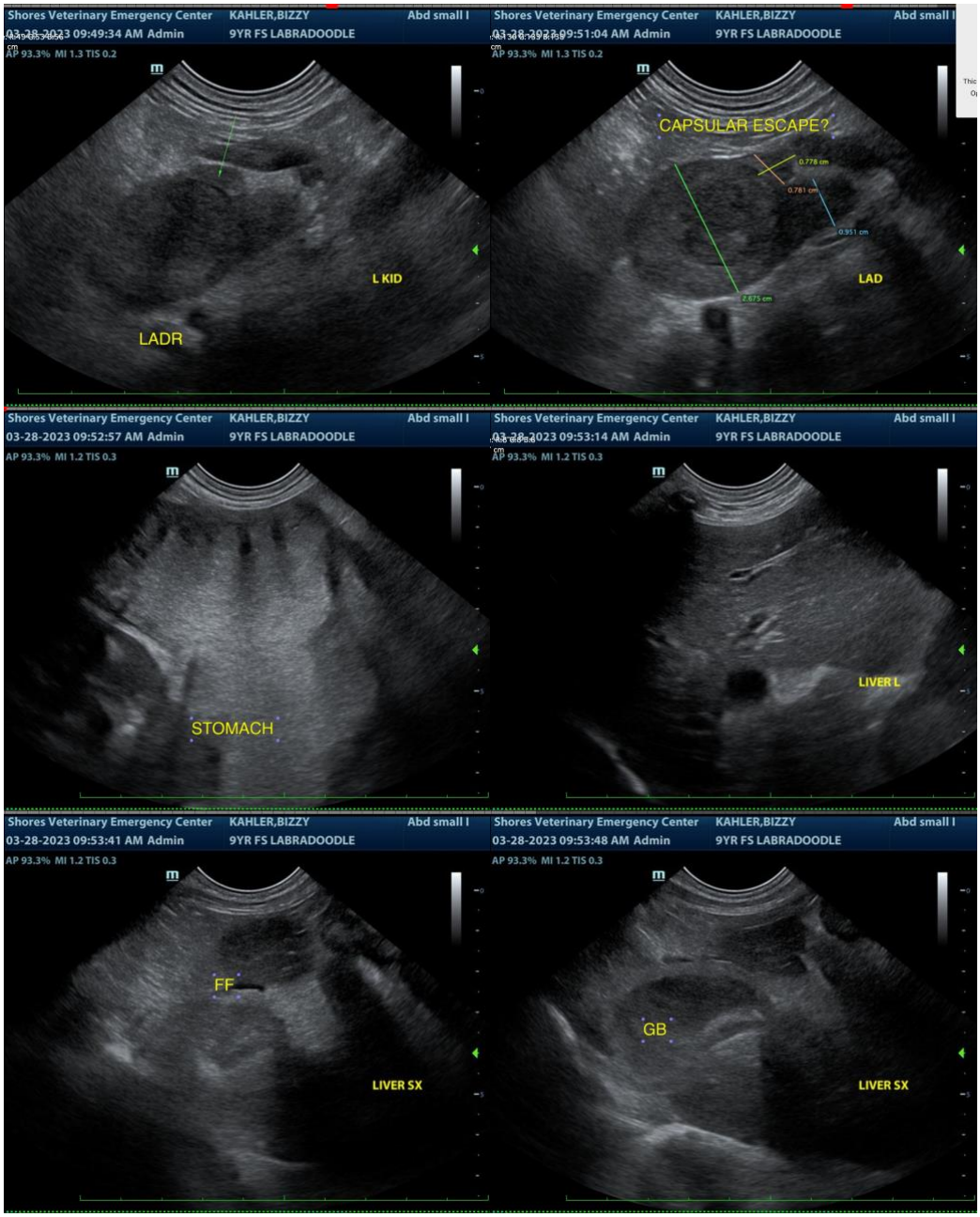

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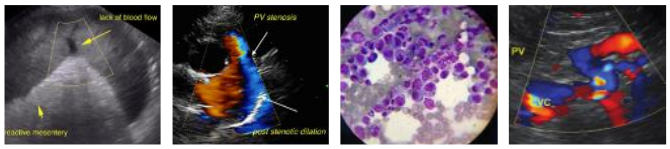

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

Beth.Johnson@SonoPath.com