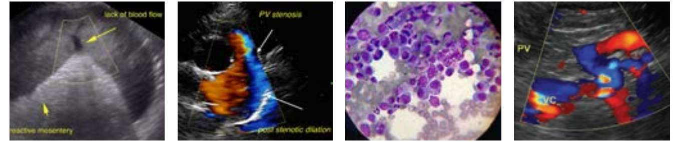

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1-800-838-4268 info@sonopath.com

PATIENT

Dixie White

SPECIES

Canine

BREED

Yorkie

SEX

Female

AGE

10 Years

WEIGHT

2.6 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Dr. Massa

HOSPITAL NAME

Animal Emergency Hospital of Volusia

REFERRING VET

Dr. Massa

INVOICE

38796

DATE

6/17/22

PRESENTING CLINICAL SIGNS

Dixie is a 10y FI Yorkie presenting as a transfer from AEHD for pancreatitis and hypoglycemia. The patient was ADR, no V/D noted but not doing well at home. BW at AEHD showed hypoglycemia, dehydration, and an abnormal CPL test. Historically healthy before this Previous rad report Report Date: 6/14/2022 11:01:42 AM UTC Report ID: 3879052 Reader: Kimberly Mulligan DVM, Diplomate ACVR History Consult Type: STAT INTERPRETATION 1-6 IMAGES, SIG: DOB: 20120614, Age: 10 Y, Sex: F ALTERED, Wt: 2.6lbs, Breed: Yorkshire Terrier, Species: CANINE, Images: 3, Case Details: Patient presented ADR. Lethargic, Decreased activity since Monday. No interest in food, No diarrhea Hypoglycemic, Bloodwork pending. Findings 3 radiographs dated June 14, 2022 are available for review. Evaluation is limited by lack of collimation to a specific body region. The cardiac silhouette, pulmonary vasculature, and pulmonary parenchyma are within normal limits. The mediastinal and pleural structures are unremarkable. The stomach contains a mild to moderate amount of homogeneous soft tissue opacity with interspersed gas. The small intestines contain homogeneous soft tissue opacity and are uniform in diameter. The colon contains gas and semi-formed feces. The liver, spleen, kidneys, and urinary bladder are unremarkable. There is adequate peritoneal serosal detail for the body condition of the patient. The musculoskeletal structures included in the collimation are relatively unremarkable. Conclusion 1. Unremarkable thorax. 2. Relatively unremarkable abdomen. Recommendations A definitive cause for the clinical signs is not identified radiographically. The pending blood work may provide additional information. An abdominal ultrasound may be helpful for further evaluation. Read By: Kimberly Mulligan DVM, Diplomate ACVR

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately 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.

The kidneys are bilaterally small, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no pyelectasia noted and no mineral is observed. The left kidney measured 2.7 cm. The right kidney measured 2.8 cm.

Adrenal Glands

The area of the adrenal glands is visualized without evident pathology.

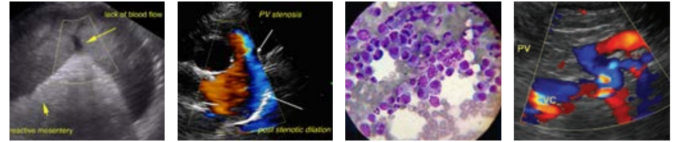
Spleen

The 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

The 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.

The gallbladder is mildly overdistended. GB contains a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.



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Gastrointestinal

Gastric fundic mucosal hypertrophy with hyperechoic mucosa and some mucosal remodeling is noted. There is no loss of mural detail. Layering is normal. There is mild luminal fluid accumulation. No evidence of masses/nodules or foreign material present.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). It is mildly diffusely fluid and chyme distended.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. It is fluid filled and mildly distended.

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

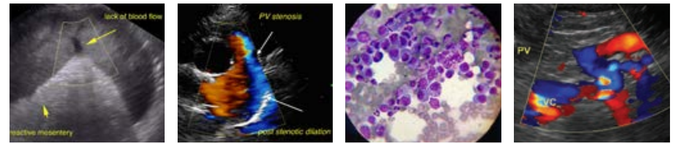
There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Gastritis – Microulceration cannot be ruled out.
- Gastroenteritis with a diffusely mildly fluid distended small bowel and large bowel – potentially secondary ileus. No evidence of obstructive pattern, plication, or foreign material.
- Early mucocele – 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. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- Chronic Kidney Disease – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- There is no visible ultrasonographic reason to explain this patient's hypoglycemia, unless diffuse gastroenteritis has resulted in anorexia long enough and has depleted glucose stores in a small breed dog. However, other recommendations to workup the hypoglycemia include baseline cortisol level, and if the baseline cortisol level is <2.0, a full ACTH stimulation test.
- Bile acids.
- Paired insulin to glucose ratio, drawn at a time when the glucose is <50 (if that time exists).
- Finally, given that this patient is reportedly intact, close evaluation for vaginal discharge indicative of a potentially open pyo, resulting in sepsis and hypoglycemia secondary to that could be considered. However, there is no ultrasonographic evidence of uterine distention.
- If cranial abdominal pain and/or liver enzyme changes support gallbladder disease, a cholecystectomy may ultimately be necessary in this patient. However, close monitoring and medical management with Ursodiol, for now, is reasonable, without abdominal pain and/or



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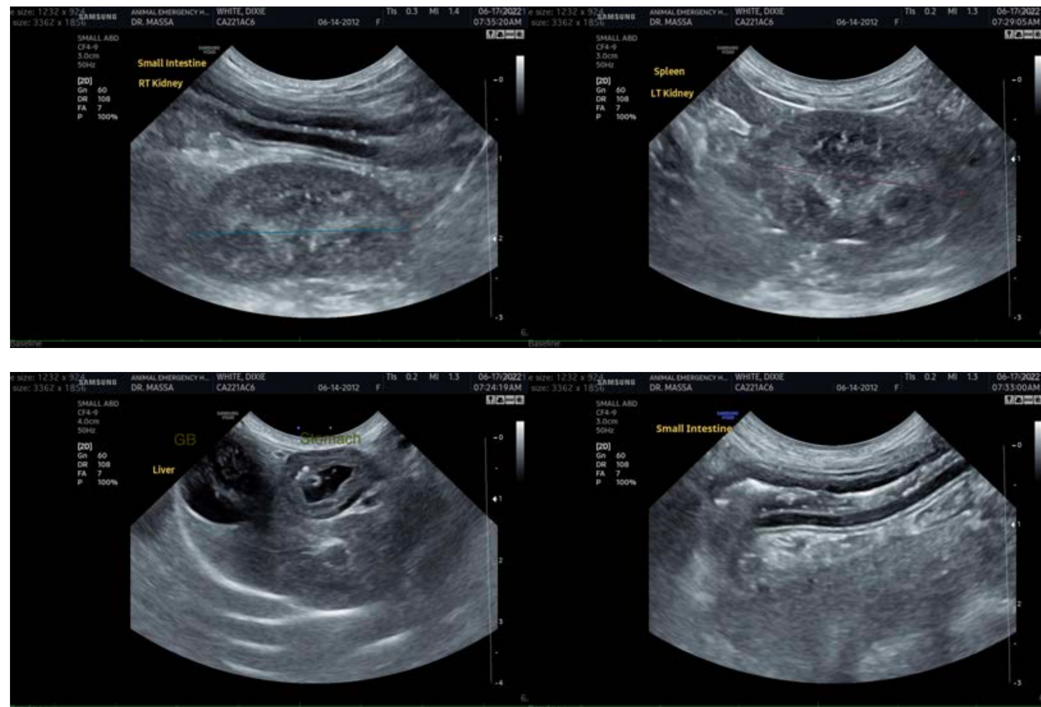
laboratory changes.

- In the meantime, empirical deworming with a 5-day course of Panacur as well as medical support of gastrointestinal signs with antiemetics and appetite stimulants as well as gastroprotectants, etc. are recommended.



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
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