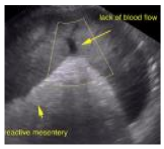
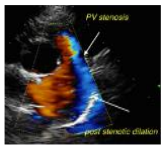
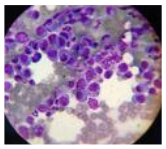
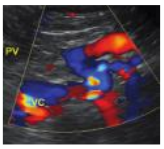

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1-800-838-4268 info@sonopath.com

PATIENT

Nicholas Hale

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

11 Years

WEIGHT

19 Lbs.

INTERPRETED BY

Andrea Nicastro, DMV, Diplomate DACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Velasco

HOSPITAL NAME

Bethany Family PC

REFERRING VET

Dr. Velasco

INVOICE

13009

DATE

12/11/21

PRESENTING CLINICAL SIGNS

History: Nicholas has slowly increasing liver enzymes. He does seem to have increased water drinking, panting and hunger. Occasionally has back pain.

Abnormal PE/Chem/CBC/UA Results: ALT 72 18 - 121 U/L AST 27 16 - 55 U/L ALP 597 5 - 160 U/L GGT 5 0 - 13 U/L Bilirubin - Total <0.1 0.0 - 0.3 mg/dL Bilirubin - Unconjugated 0.0 0.0 - 0.2 mg/dL Bilirubin - Conjugated 0.1 ACTH - not consistent with Cushings Cortisol - Pre ACTH 3.7 µg/dL Cortisol - Post ACTH a16.5 µg/dL LDDST - not consistent with Cushings Cortisol - Baseline 5.5 1.0 - 6.0 µg/dL Cortisol - 4 hr Post Dex 0.5 µg/dL Cortisol - 8 hr Post Dex 0.6 µg/dL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A 0.92 cm cystic calculus is observed along with a small amount of suspended echogenic debris. The region of the trigone is normal.

The prostate is normal in size (0.98 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney presented normal size (5.42 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A few small cortical cysts are visualized. Several nonobstructive nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal size (4.93 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A few nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (0.98 cm at cranial pole) (0.83 cm at caudal pole) (1.81 cm in length); with a slightly irregular shape. The parenchyma is subtly heterogeneous in appearance with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature appear normal.

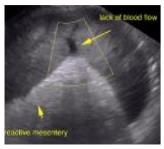
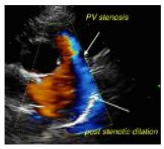
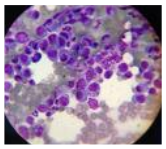
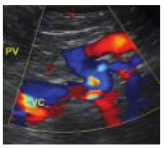
The right adrenal gland is enlarged (1.35 cm at cranial pole) (0.74 cm at caudal pole) (2.38 cm in length); with a slightly irregular shape. The parenchyma is subtly heterogeneous in appearance with some loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature appear normal.

Spleen

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with rounded swollen peripheral contours. The parenchyma is isoechoic relative to the spleen with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen with a coarse echotexture and diffuse heterogeneous appearance. No distinct focal

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lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is distended. The wall is normal in thickness. A moderate to large amount of aggregated echogenic partially dependent to suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal (xxx cm) with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

Pancreas

The pancreas is normal in size with normal peripheral contours. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

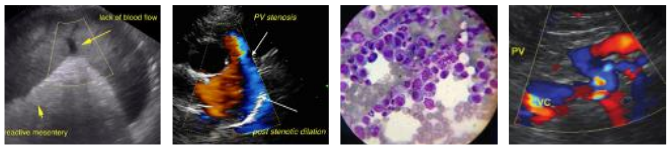
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered unlikely.
- Bilateral adrenomegaly
- The gallbladder changes are concerning for a developing mucocele. However, cholestasis cannot be completely excluded.
- Cystic calculus with urinary bladder debris

Secondary Findings

- Bilateral age-related renal changes with nonobstructive nephrolithiasis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the patient's history and sonographic changes, consider submission of an adrenal panel to the University of Tennessee (https://vetmed.tennessee.edu/vmc/dls/endocrinology/endo-submission-guidelines/).
- Given the gallbladder changes, consider initiation of Ursodiol therapy with serial sonographic monitoring (i.e., every 6-8 weeks) to assess for progression to a fully-formed mucocele. Alternatively, a repeat ultrasound can be considered in 2-3 weeks, preferably 2 hours post



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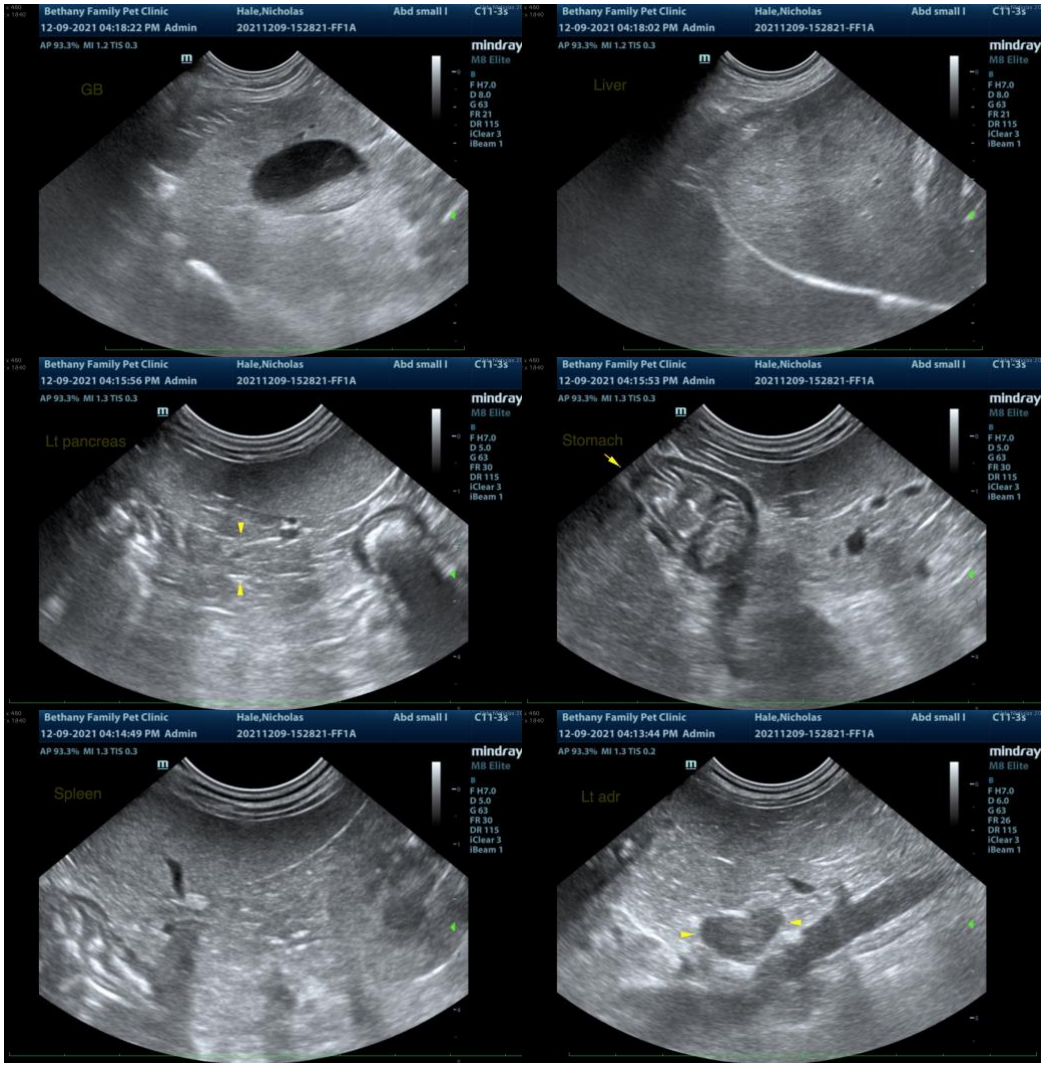
small meal. If the gallbladder changes are similar to the current scan, Ursodiol initiation can be considered at that time.

- A cystotomy with stone removal, analysis and culture is recommended. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.



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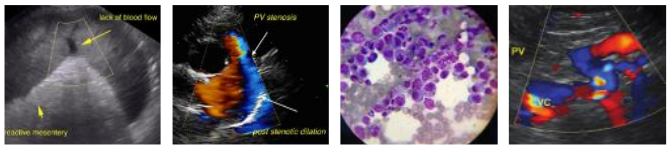

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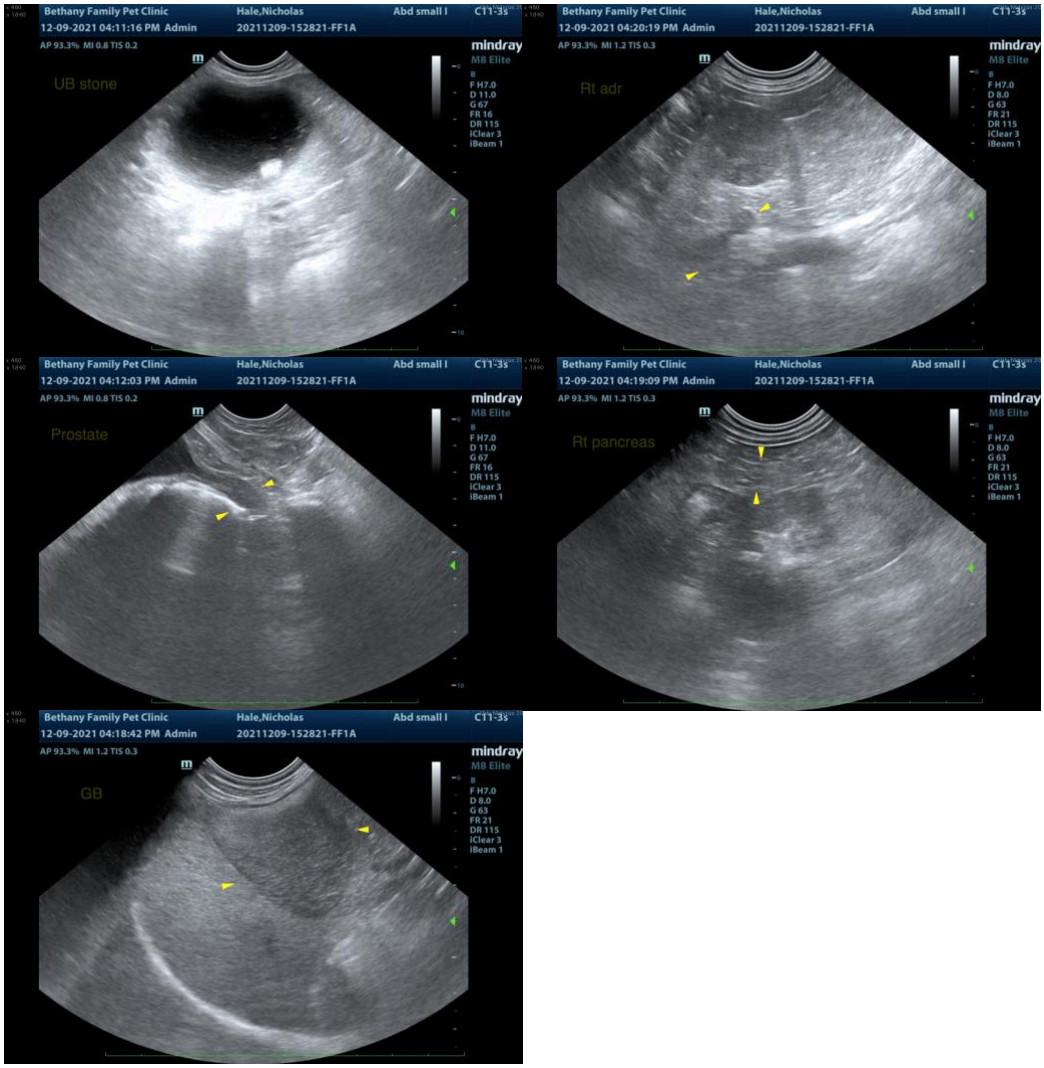

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com