


PATIENT

Samson Zabriskie

PRESENTING CLINICAL SIGNS

History: Presenting for chronic cough and slightly enlarged VHS 11. No murmur. New elevation of ALT 143, ALP 183. Dog is clinically normal otherwise. *Having bi-cavity ultrasound exams.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Urinary System

The urinary bladder is moderately distended. A >2.00 cm irregular echogenic structure/mass appears to be arising from the ventroapical aspect. The remaining urinary bladder wall is normal in thickness with a smooth mucosal surface. Luminal contents are otherwise mostly anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

BREED

Pomeranian

SEX

Neutered Male

The prostate is normal in size (0.65 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

AGE

8 years

The left kidney is normal in size (4.29 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Pinpoint hyperechoic foci are observed within the cortex. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis.

WEIGHT

12.2 lbs

The right kidney is normal in size (4.41 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Pinpoint hyperechoic foci are observed within the cortex. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis.

INTERPRETED BY

Andrea Nicastro, DVM,
 Diplomate ACVIM
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 Medicine)

Adrenal Glands

The left adrenal gland is mildly enlarged with a prominent caudal pole (0.34 cm at cranial pole) (0.57 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

The right adrenal gland is mildly enlarged (0.79 cm at cranial pole) (0.62 cm at caudal pole) with slightly swollen peripheral contours. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature appear normal.

IMAGING PERFORMED BY

Pamela Harrigan,
 RDCS

Spleen

The spleen is subjectively normal in size (1.20 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is subtly mottled in appearance. A 0.86 cm ill-defined hypoechoic area/nodule is observed at the craniomedial aspect. Splenic vasculature appears normal with no evidence of thrombosis.

HOSPITAL NAME

Wood River AH

Liver

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion.

REFERRING VET

Casey Schuelke, DVM

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, partially dependent, echogenic-to-mineralized debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

INVOICE

12600

DATE

3.31.23

Gastrointestinal

The lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecolic junction and colonic wall are normal. The lumen of the descending colon contains granular-appearing fecal material. There is no evidence of an obstructive pattern.

Pancreas

The right limb of the pancreas is normal in size with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. Two prominent rounded lymph nodes are observed near the aortic trifurcation (the largest measuring 0.70 cm in length).

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Suspected urinary bladder mass at the ventroapical aspect. Another possibility is aggregated adherent debris. However, a mass is considered more likely based on the sonographic appearance. Differentials for the mass include transitional cell carcinoma, or polypoid cystitis.
- The prominent caudal abdominal lymph nodes could be consistent with reactive change or infiltrative neoplasia. A benign process is favored at this time.

Secondary Findings

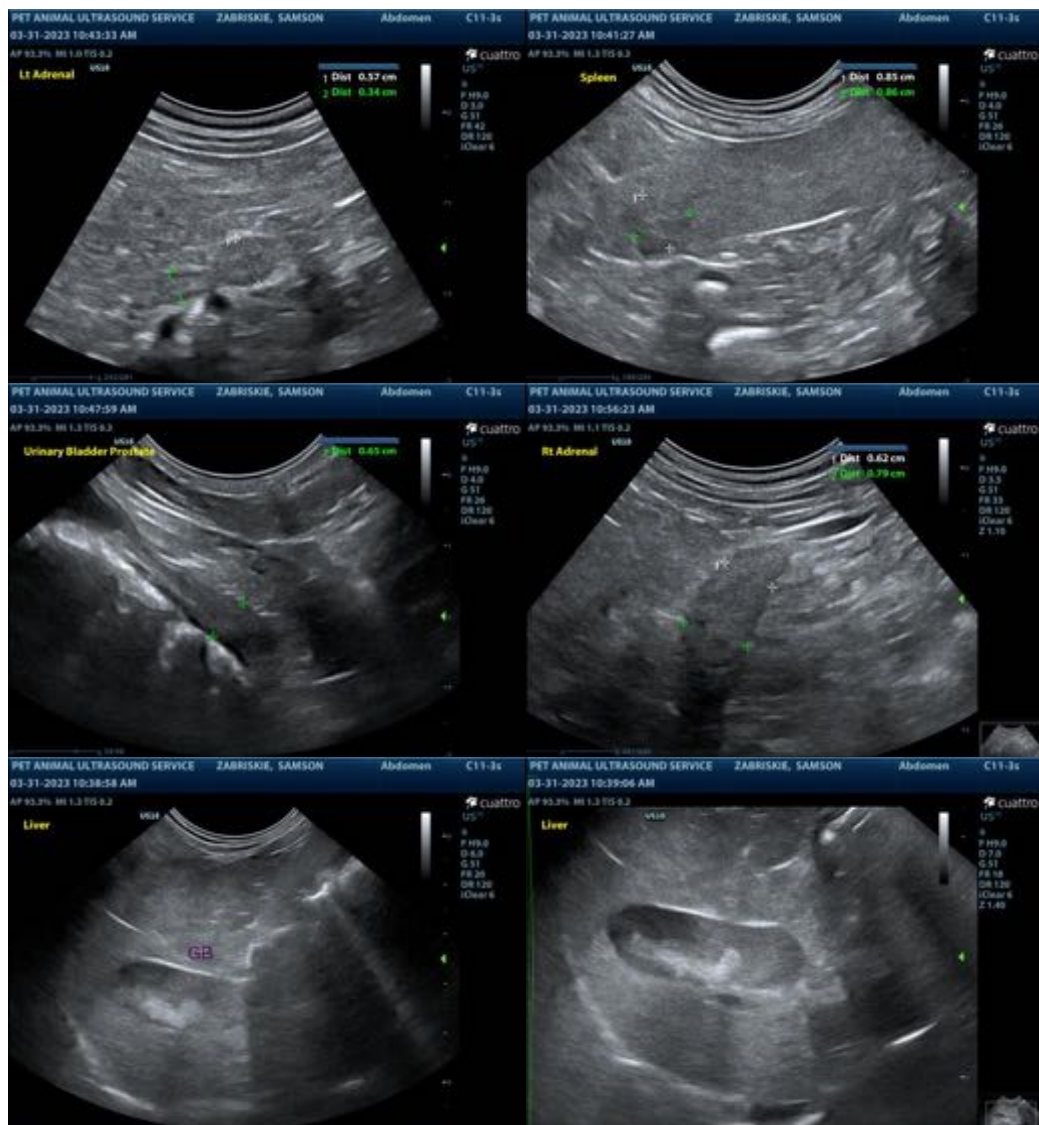
- Bilateral chronic renal changes with nonobstructive nephrocalcinosis
- Mild bilateral adrenomegaly
- The diffuse splenic parenchymal changes (as well as the hypoechoic nodule/areas at the cranial aspect) could be consistent with a benign process (i.e., extramedullary hematopoiesis, lymphoid hyperplasia, or similar). Alternatively, emerging neoplasia is possible, although considered less likely.
- Gall bladder sludge – non-mucocele
- Minor age-related pancreatic remodeling

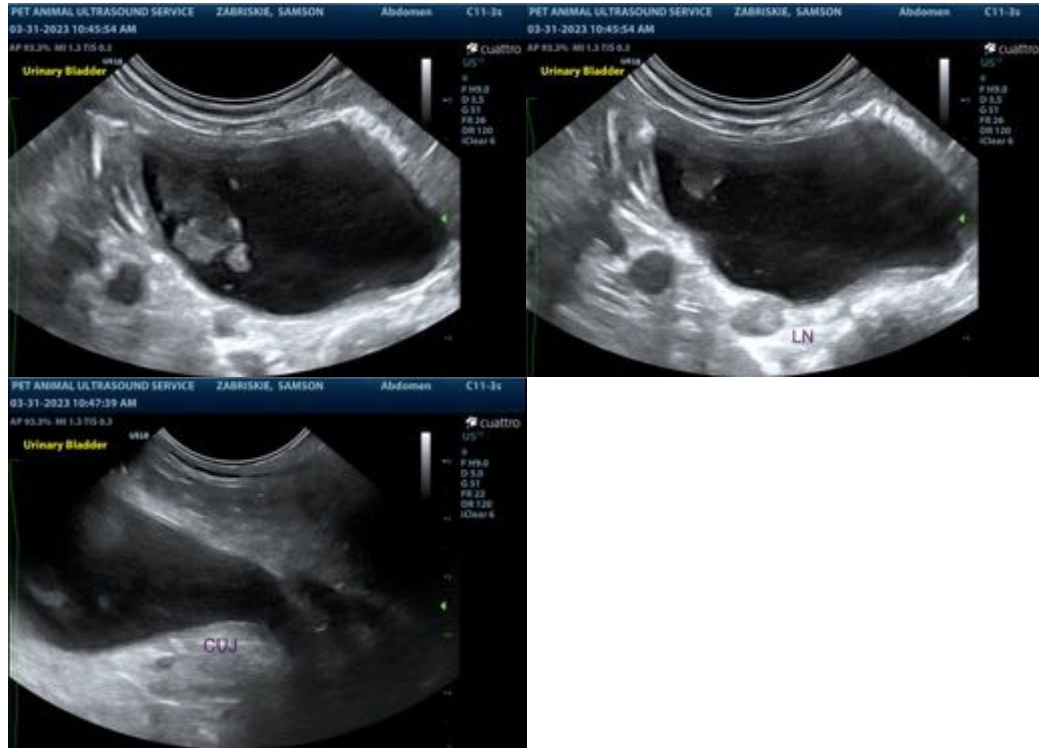
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the urinary bladder lesion, consider a urine BRAF test to further assess for neoplasia. A positive test confirms neoplasia. However, a negative test does not rule out the possibility of cancer, and further testing (i.e., biopsies) may be necessary to get a definitive diagnosis.
- Regarding the liver changes, consider the following:
 1. Pre-and postprandial serum bile acids
 2. Leptospirosis testing (i.e., blood and urine PCR, serology)

3. Cytologic evaluation of the liver should be considered in this patient if clotting status is appropriate. A fine needle aspirate using a 25-gauge needle is recommended. If cytologic evaluation is inconclusive, consider a surgical liver biopsy with aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for copper quantitation.
4. If a more conservative approach is desired, consider empirical treatment for cholangiohepatitis with amoxicillin-clavulanic acid along with hepatic antioxidants. If liver values do not begin to improve within 7-10 days of initiating therapy, antibiotics should be discontinued and hepatic tissue sampling reconsidered. If values do improve, a 4–6-week course of treatment is recommended.

- Given the patient's age, three-view thoracic radiographs are recommended prior to any anesthetic event.





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.

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