

**DATE PRESENTING CLINICAL SIGNS**

10/8/21

Recurrent UTI March 2020, Nov 2020, March 2021, June 2021, July-August 2021. Recent labs nsf. Urine culture (emailed for review) revealed enterococcus and Pseudomonas. Treated based on culture. Owner reports signs never resolved. Brief scan inhouse- concern for bladder wall mineralization.

PATIENT

Nellie Surenda

Current Medications: Carprofen 32.5mg PO once daily

SPECIES

Canine

Lab Results & Radiographs: ALT is 140. Normal T4. CBC is normal. Specific gravity is 1.014. No proteinuria.

Date of Previous IntraPet Ultrasound: No previous

BREED

Beagle

Sedation: Sedation not required.

Stat Report: Stat report not requested by DVM.

SEX

Female Spayed

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A small amount of aggregated, echogenic debris is suspended within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

AGE

2008

WEIGHT

19.1 lbs.

The left kidney is normal size (4.65 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

INTERPRETED BY

Andrea Nicastrò, DVM,
 Diplomate ACVIM
 (Small Animal Internal
 Medicine)

The right kidney is normal size (4.34 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

HOSPITAL NAME

Timonium Animal
 Hospital

Adrenal Glands

The left adrenal gland is normal size (0.56 cm at cranial pole) (0.55 cm at caudal pole) (1.65 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

REFERRING VET

Dr. McMichael

The right adrenal gland is normal size (0.53 cm at cranial pole) (0.47 cm at caudal pole) (1.62 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INVOICE

11986kk

Spleen

The spleen is normal in size (1.26 cm in width at the level of the hilus) 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 prominent in size with irregular peripheral contours. Within the left lateral lobe, a 6.7 x 2.48 cm heterogeneous swelling/mass-effect is observed. The lesion causes rounding of the peripheral contours. Ill-defined, hyperechoic areas are observed within the lesion. In addition, a 3.31 cm swelling/mass

is observed mid-to right liver. The remaining parenchyma is homogeneous. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of gravity-dependent, mineralized sand as well as a scant amount of suspended echogenic debris 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 pyloric outflow tract is patent. 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 colonic wall is normal. No obstructive disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

Other

A uterine stump is visible. Hyperechoic shadowing foci are observed within the stump and likely represent suture material. Although, a focus of mineralization cannot be excluded.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- An obvious cause for the patient's recurring urinary tract infections is not identified in this study. Pre-disposing factors (i.e., abnormal external genitalia, disruption of the glucosaminoglycan layer) are considerations.
- Hepatic swellings/masses. These lesions may represent a neoplastic process. Alternatively, benign pathology (i.e., myelolipomas), regenerative nodules may be present.

Secondary Findings:

- Gall bladder sand – incidental.
- Bilateral, age-related renal changes with dystrophic mineralization.
- Urinary bladder debris.
- The hyperechoic shadowing foci within the uterine stump seems to correspond to the description of mineralized area seen radiographically. This region may represent suture material or mineralization within the uterine stump. There is no obvious evidence of mineralization within the lower urinary tract.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. A repeat urine culture and sensitivity is recommended to assess for resistant infection.

2. A prolonged course of antibiotic therapy (i.e., four weeks) may be warranted with a recheck urine culture mid-way through the treatment regimen and again 5-7 days after the last dose.
3. A thorough evaluation of the external genitalia is recommended to assess for predisposing factors.
4. Regarding the hepatic changes, the following diagnostics can be considered:
 - a. Three-view thoracic radiographs are recommended to assess for occult neoplasia.
 - b. Fine needle aspirations of the lesions (if clotting status is appropriate). 25-gauge needles should be used. If cytologic evaluations are inconclusive, surgical biopsies +/- removal may be necessary to get a definitive diagnosis.





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.

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