

**DATE PRESENTING CLINICAL SIGNS**

11/2/2021

History: Patient presents for recheck scan - doing better at home but still experiencing hematuria and "dripping." BRAF test - BRAF mutation NOT detected. Owner is interested in cystotomy - AUS to check progress of appearance of bladder.

PATIENT

Lily Zimmerman

Current Medications: Doxycycline being given per previous C&S, (although course will be finished when scan is done,) Gabapentin PRN.

Lab Results: BRAF test - NOT detected.

Date of Previous IntraPet Ultrasound: 9-7-2021.

Sedation: Not needed.

Stat Report: Not requested.

SPECIES

Canine

BREED

Bichon

SEX

Female, spayed

AGE

4/26/21

WEIGHT

14 lbs.

INTERPRETED BY

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 Diplomate ACVIM
 (Small Animal Internal
 Medicine)

HOSPITAL NAME

Perry Hall AH

REFERRING VET

Dr. Miller

INVOICE

12470

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is contracted. The wall is concentrically thickened (up to 1.37 cm), irregular and hypoechoic to heterogeneous with foci of mineralization. Mineralized sand +/- tiny calculi are observed within the bladder and proximal urethral lumen. The proximal urethral wall is normal to mildly thickened. The mesentery effacing the serosal surface of the urinary bladder is hyperechoic. Trace free fluid is observed in this region.

The left kidney is normal in size (4.24 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. A few nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (4.09 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. A few nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.37 cm at cranial pole) (0.44 cm at caudal pole) (1.61 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.

The right adrenal gland is normal size (0.46 cm at cranial pole) (0.54 cm at caudal pole) (1.66 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.

Spleen

The spleen is normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A few hyperechoic nodules are observed adjacent to splenic vessels. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat and slightly mottled in appearance. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

A small amount of caudal retroperitoneal fluid is present. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The bladder wall changes are still concerning for infiltrative neoplasia (despite the negative urine BRAF test), however severe cystitis is also possible. The bladder wall changes appear to have worsened since the previous sonogram. Urinary bladder sand +/- tiny calculi. Caudal retroperitonitis is present, likely secondary to urinary bladder pathology.

Secondary Findings:

- Bilateral age-related renal changes with dystrophic mineralization and non-obstructive nephrolithiasis.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A cystotomy with a bladder wall biopsy and removal of the urinary bladder sand/stones with submission for analysis and culture is recommended.
- Three-view thoracic radiographs should be performed prior to anesthesia to assess cardiopulmonary status.





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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