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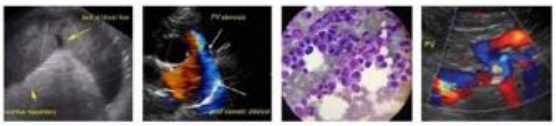


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Harriet Bassett

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

14 years

WEIGHT

5.17 kg

INTERPRETED BY

Tam Mengine, DVM, DABVP (canine/feline practice)

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Upper Canada AH

REFERRING VET

Harkness

INVOICE

12924

DATE

5.1.23

PRESENTING CLINICAL SIGNS

History: Intermittent history of inappropriate urination/hematuria since 2021, possibly earlier - No straining/vocalization during urination - Good appetite - recently transitioned to Hills c/d stress canned from Friskies - No V/D/C/S - No recent changes in household, no other pets - Goes outdoors in yard in the summer - PE WNL with exception to significant dental disease, unkempt haircoat and dander - History of OA - Hematuria responds to Metacam then recurs Current Medications Metacam 0.05 mg/kg PO SID

Abnormal PE/Chem/CBC/UA Results: Mildly elevated urea Urinalysis: USG: 1.016, marked hematuria Urine culture negative Radiographic Findings Lateral abdominal radiograph: - no cystoliths visible - possibly enlarged left kidney - round increased soft tissue opacity overlying kidney parenchyma with central mineral opacities - spondylosis affecting L1, L2, L3 please see attached labs and rads

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. There is a 1.8 x 1.3 cm irregular transmural mass in the region of the trigone. It invades both the serosal and mucosal surfaces. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No calculi are noted. Urethra visualized to 3.0 cm.

Both kidneys are hyperechoic and exhibit poor corticomedullary differentiation. The right kidney has a rounded appearance and is surrounded by hyperechoic omental fat. The left kidney has irregular cortical margins, consistent with a history of prior infarcts. There is no evidence of nephrolithiasis, mineralization, pyelectasia, or hydronephrosis. The proximal ureter is not visible (normal). The left kidney is 4.2 cm in length. The right kidney is 4.5 cm in length.

Adrenal Glands

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and focal mineralization which is a normal variant in a cat. There is normal phrenic vasculature. The left adrenal gland height is 2.2 mm at the caudal pole. The right adrenal gland height 2.6 mm at the caudal pole.

Spleen

The spleen is diffusely thickened, measuring 1.3 cm at the hilus. The capsular margins regular and the parenchyma is normal. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

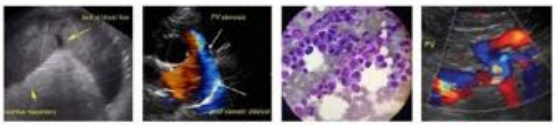
Liver

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents and a small amount of freely-moveable echogenic sludge. The wall was thin and continuous with no focal lesions. The cystic and common bile ducts are normal / not visible.

Gastrointestinal

The stomach is empty. The gastric wall is subjectively normal in thickness, and exhibits appropriate wall layering, but cannot be accurately measured due to normal deviations of the rugal folds. The pylorus is of normal appearance.



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The small bowel has diffuse changes to the normal 1:3 muscularis to mucosa ratio. Wall measurements are increased up to 3.1 mm for duodenum and 3.1 mm for jejunum. Overall wall layering is preserved. Intestinal motility appears normal.

The visible portions of the colon are of normal thickness, up to 1.3 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

Pancreas

The areas of the limbs and body of the pancreas are isoechoic to the surrounding mesenteric fat, with normal capsular appearance. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Free Abdomen

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Transmural bladder mass near the trigone
- Bilateral chronic renal changes, and perinephric inflammation in the region of the right kidney
- Diffusely thickened spleen
- Diffuse infiltrative bowel changes in the small bowel

Secondary Findings

- Mineralized adrenal glands, which likely correlate to the mineralized structure seen on radiographs

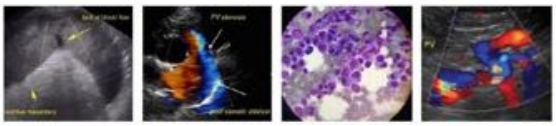
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The mass noted in the bladder is likely the cause of the clinical signs. Based on its location near the trigone, it seems unlikely that surgical resection would be possible. As it seems that the patient's clinical signs are controlled with Meloxicam, this therapy could be continued, while checking renal values at regular intervals. Recent literature suggests that even older cats with chronic renal disease will tolerate a low dose of Meloxicam long-term.

The changes in the kidneys appear chronic. However, the inflamed fat in the region of the left kidney raises the possibility of a more acute process. Given the recent urine culture, a kidney infection seems unlikely. The possibility of renal neoplasia cannot be ruled out without a fine-needle aspirate or biopsy.

The splenic changes are concerning for infiltrative neoplasia such as lymphoma or splenic mastocytosis, though a reactive splenitis is also possible. Recommendations include:

- Ultrasound-guided fine needle aspiration with a 25G needle, after pre-medicating with diphenhydramine.



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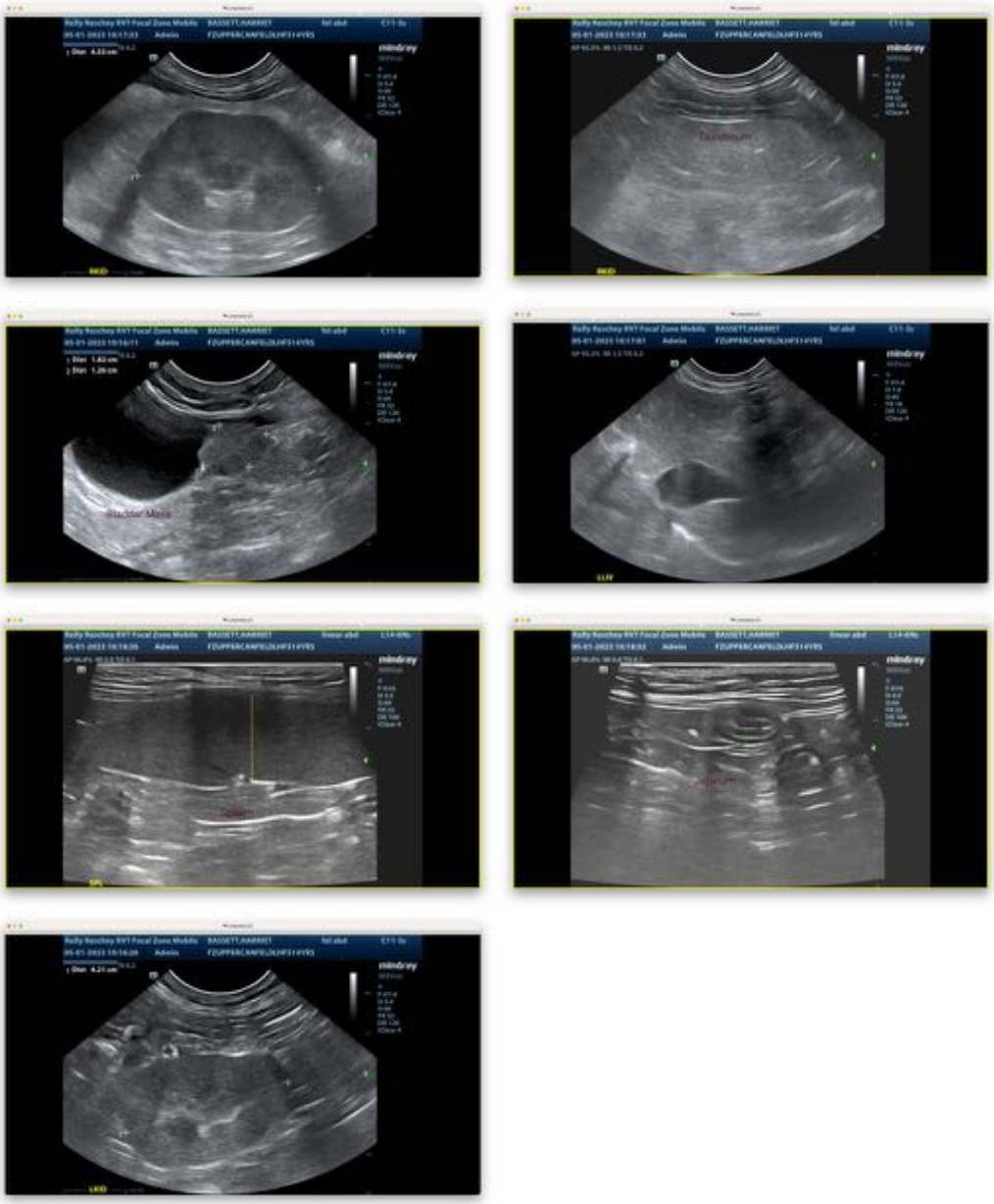
The changes to the small intestines may be incidental, given the lack of history of GI signs, but the appearance is typical of infiltrative bowel disease. If there is weight loss or the presence of gastrointestinal signs, then the following additional recommendations would help determine the significance of these findings:

- Fecal parasite testing and empiric fenbendazole treatment
- Trials with a novel protein or hydrolyzed diet
- A complete GI panel, or empiric cobalamin supplementation
- Empiric therapy with prednisolone at 2-4mg / kg daily could be considered if a diet trial is unsuccessful.
- Definitive diagnosis would require biopsy of the affected tissue, ideally with intra-operative ultrasonographic guidance. If there is concurrent lymphadenopathy, ultrasound-guided sampling of the lymph node using a 25 or 22G needle could be considered.



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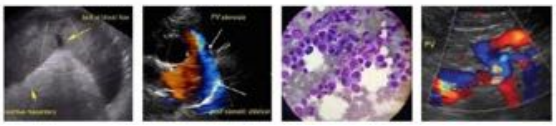

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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