

**DATE PRESENTING CLINICAL SIGNS**

2/10/23

PATIENT

Clover McGonigle

Owners noticed frequent urination, accidents in house, odor to urine at the end of January and took pet to Urgent Care. Urgent Care vet diagnosed uti 1/23/23. Prescribed clavamox 375mg bid, gabapentin 300mg bid. Signs resolved within a couple days. Signs recurred 5 days after antibiotic was completed. History of atopic dermatitis and otitis externa. Patient is on Apoquel 16 mg daily and ketoconazole 200 mg 3 days a week. BAR, bcs 6/9, recessed vulva with vulva fold dermatitis, normal rectal exam.

SPECIES

Canine

BREED

Basset Hound

Current Medications: Apoquel 16 mg daily, ketoconazole 200 mg 3 days a week
 Lab Results: ua at urgent care 1/23/23-wbc>50/hpf, rbc>50/hpf, cocci, sg 1.034, epithelial cells.
 Radiographs: 2/9/23 small bladder, no apparent stones.
 Date of Previous IntraPet Ultrasound: No previous.
 Sedation: Not required to complete full diagnostic ultrasound.
 Stat Report: Not requested.
 Imaging Performed By: Rachel Brillhart, RDMS.

SEX

Spayed Female

AGE

6/19/17

WEIGHT

70.6 Pounds

INTERPRETED BYJessica Midence, DVM,
DACVIM (SAIM)**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder has a small volume of highly echogenic urine with a significant amount of suspended debris with hyperechoic speckles. The apex of the bladder is severely thickened up to 1.0 cm, and the mucosa is irregular and almost polypoid, though this is likely secondary to severe inflammation. There are hyperechoic echoes within the mucosa, consistent with mineralization and adherent mineralized sand/debris. There is an aggregate of dependent hyperechoic shadowing debris that could be a cluster of very small stones or one larger stone that measures 0.83 cm long x 0.28 cm in width. Certain sonographic loops suggest this could be embedded/adhered to the bladder mucosa.

The left kidney is normal in size, shape and architecture with smooth peripheral margins and measures 6.3 cm. There is normal corticomedullary distinction and normal echogenicity. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The right kidney is normal in size, shape and architecture with smooth peripheral margins and measures 6.5 cm. There is normal corticomedullary. distinction and normal echogenicity. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.40 cm at the caudal pole and 0.41 cm at the cranial pole). The left adrenal gland has normal shape and it is normal in appearance and echogenicity.

The right adrenal gland is normal in size(0.64 cm). The right adrenal gland has normal shape and it is normal in appearance and echogenicity.

Spleen

The splenic echotexture is homogeneous with parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule is smooth with no irregularities. The spleen folds over, but this is considered normal. The splenic vasculature is normal without signs of congestion or thrombosis.

Liver

The liver is subjectively normal in size with normal contours, structure, with smooth peripheral margins. The echogenicity appears normal with normal portal markings. No overt evidence of inflammatory, infiltrative or regenerative pathology is evident. The visible portions of the vasculature and biliary tract appear normal. No pathological hepatic lymphadenopathy observed.

INVOICE

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The gallbladder lumen is distended. The wall is a normal thickness and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The gastric lumen is empty. The stomach wall is of normal wall thickness with some variability due to rugal folds. There is normal gastric wall layering. There are no masses or focal lesions observed and the pyloric outflow tract appears patent.

The visualized areas of duodenum, jejunum and ileum appear normal in thickness. The duodenum measures normal with distinct wall layering. The remainder of the small intestines also measures normal with normal wall layering. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. No focal lesions observed.

Sections of colon are visualized with formed fecal material and gas shadowing distally. The colon measures normal. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid. The visible pancreatic duct was normal.

Free Abdomen

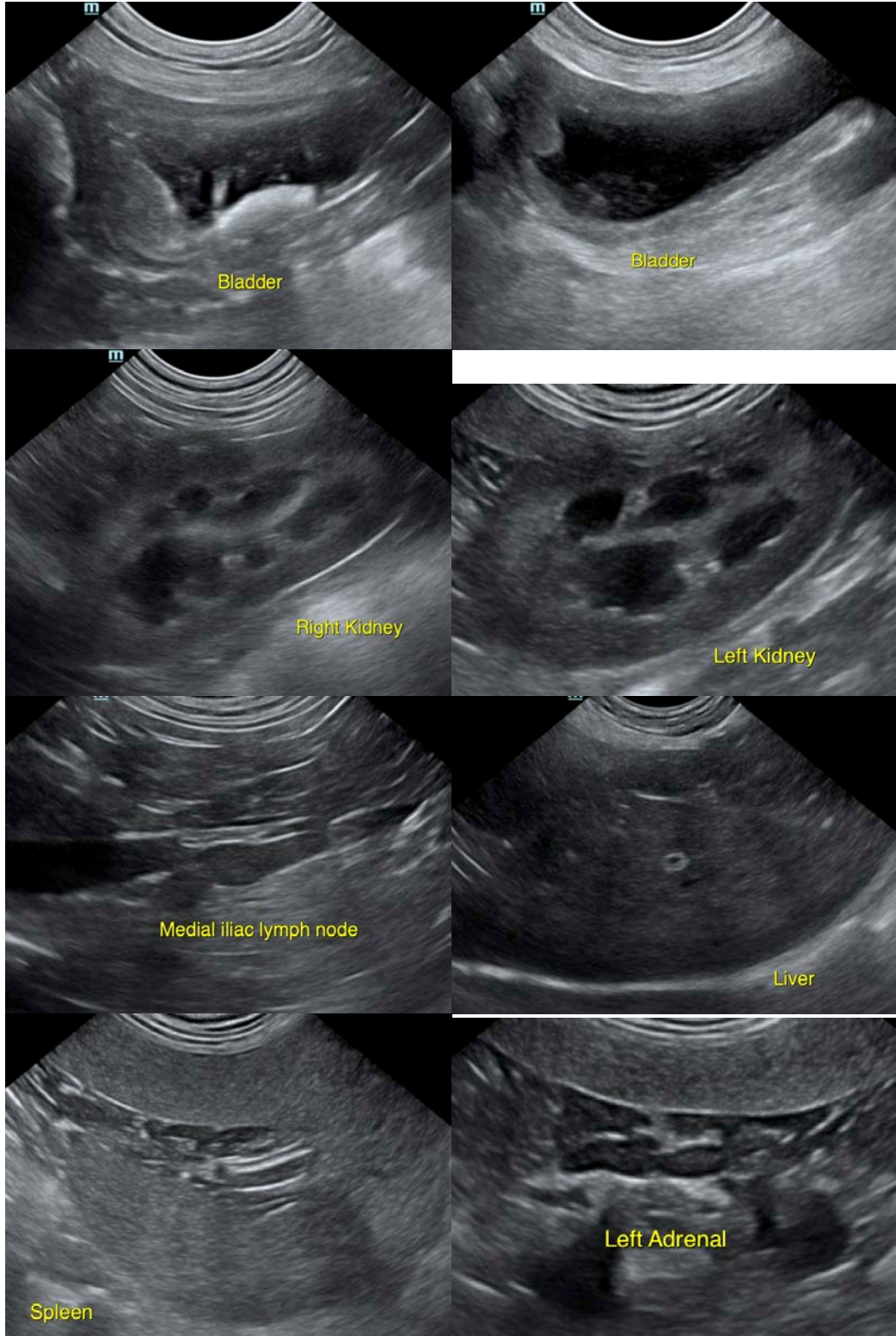
Evaluation of the peritoneal cavity did not reveal any evidence of effusion. The medial iliac lymph nodes are mildly enlarged, measuring 0.70 cm in width and 2.7 cm in length, considered reactive. The omentum is of normal uniform echogenicity.

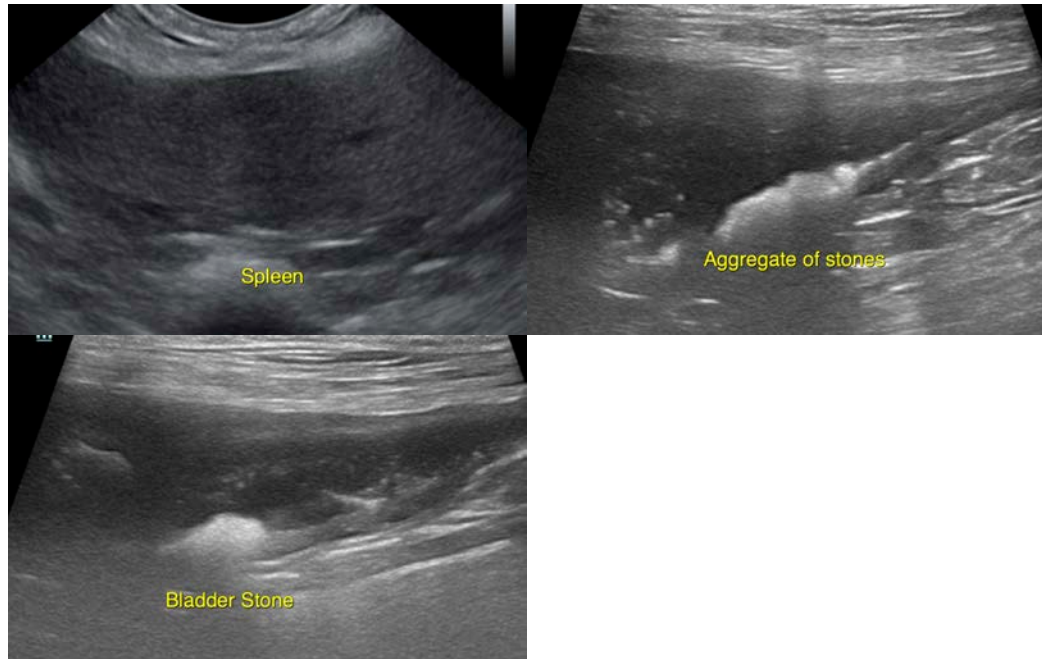
ULTRASONOGRAPHIC FINDINGS

- Severe cystitis with adhered aggregated mineral and adherent bladder stone
- Reactive medial iliac lymph nodes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes to the bladder represent severe cystitis with mineralization and aggregates of small stones, or one larger stone that may be embedded in the wall. There is mineralization streaking through the bladder mucosa. Given the history of urinary tract infection and severity of the cystitis on this exam struvite stones/mineralization induced by urinary tract infection is suspected over other stone types though analysis would be needed to confirm. Consider urine culture to guide appropriate antimicrobial therapy and consider halo or urinary tract dissolution diet for 1-2 months (potentially larger) if not contraindicated in this patient. Continue antibiotic therapy for a similar length of time until the mineralization has adequate time to resolve. Repeat focal bladder ultrasound can be used to monitor success of treatment.





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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