



PATIENT PRESENTING CLINICAL SIGNS

Nittany Vail

Presented to ER for dribbling urine, stranguria, hematuria, perivulvar dermatitis, very distended uncomfortable bladder. not emptying bladder. Urinary catheter passed easily. No stones seen on rads. r/o mass vs. cystitis.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: in house u/a: TNTC RBC, moderate cocci bacteria, moderate rod bacteria, TNTC WBC, large protein alp: 685 all other labs wnl radiograph report: Distention of the urinary bladder consistent with at least partial urinary obstruction. An obvious cause for obstruction is identified on the images provided. Please note that nonopaque uroliths or a mass (unless mineralized) cannot be ruled out radiographically. Correlate with urinalysis. If there is sufficient clinical concern, abdominal ultrasound could be considered for further evaluation.

BREED

Treeing Walker
Coonhound

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

AGE

10 Years

The urinary bladder is mildly distended with anechoic urine. The wall is thickened to 6.4 mm with an irregular mucosal surface and diffuse mucosal mineralization. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). There is a linear object present within the bladder lumen, consistent with a urinary catheter, and a round, shadowing structure near the cystourethral junction that is presumed to be a balloon on the catheter. The urethra is visualized to 2.0 cm.

WEIGHT

35 kg

INTERPRETED BY

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

The visualized portions of the kidneys are of normal size and shape and exhibit appropriate corticomedullary differentiation with a normal 1:3 cortex to medulla ratio. There is no evidence of nephrolithiasis, mineralization, pyelectasia, cystic change or hydronephrosis. The proximal ureter is not visible (normal). Left kidney measures 6.4 cm. Right kidney measures 6.4 cm.

Adrenal Glands

IMAGING PERFORMED BY

Lindsay Powell

The left adrenal gland is identified in its normal location. It is of normal size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland measures 4.7 mm cranially and 6.7 mm caudally. The right is not distinctly visualized, but the region appears unremarkable.

HOSPITAL NAME

Hershey Animal
Emergency Center

Spleen

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal.

REFERRING VET

Dr. Rebecca Lupole

Liver

INVOICE

43259

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.

DATE

6/17/23

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.



PATIENT

Gastrointestinal

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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.

SPECIES

Canine

The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. Intestinal motility appears normal. Duodenum wall measures 4.8 mm. Jejunum wall measures 3.6 mm.

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Coonhound

The visible portions of the colon are of normal thickness (1.6 mm) with intact wall layering. The ileocecal junction is visualized and normal.

SEX

Spayed Female

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.

AGE

10 Years

Free Abdomen

There is focal free fluid present within the abdomen in the region of the liver, right kidney, and spleen. The omentum and intra-abdominal fat are hyperechoic. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

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PRIMARY FINDINGS

- Diffusely thickened, mineralized bladder wall

IMAGING PERFORMED BY

Lindsay Powell

SECONDARY FINDINGS

- Focal free fluid and hyperechoic omental fat – consistent with peritonitis.

HOSPITAL NAME

Hershey Animal
Emergency Center

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most likely cause of diffuse mineralization of the bladder wall is encrusted cystitis, which has been associated with *Corynebacterium* infection as well as other bacterial cystitis. Neoplasia is also a potential differential but would be considered less likely. It was difficult to visualize the cystourethral junction due to the presence of the urinary catheter. Cystoscopy would be recommended to visualize both the intrapelvic urethra and to potentially biopsy the bladder mucosa for histopathology and culture. Additional recommendations would include a urine BRAF test and a urine culture, which will hopefully further elucidate the cause of the changes to the bladder wall.

REFERRING VET

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The course of the inflammation within the abdomen is not identified. If possible, abdominocentesis to obtain a sample for fluid analysis and cytology would be recommended. Monitoring of the patient's BUN and creatinine is also recommended to rule out the possibility of a uroabdomen secondary to the obstruction.

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HOSPITAL NAME

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REFERRING VET

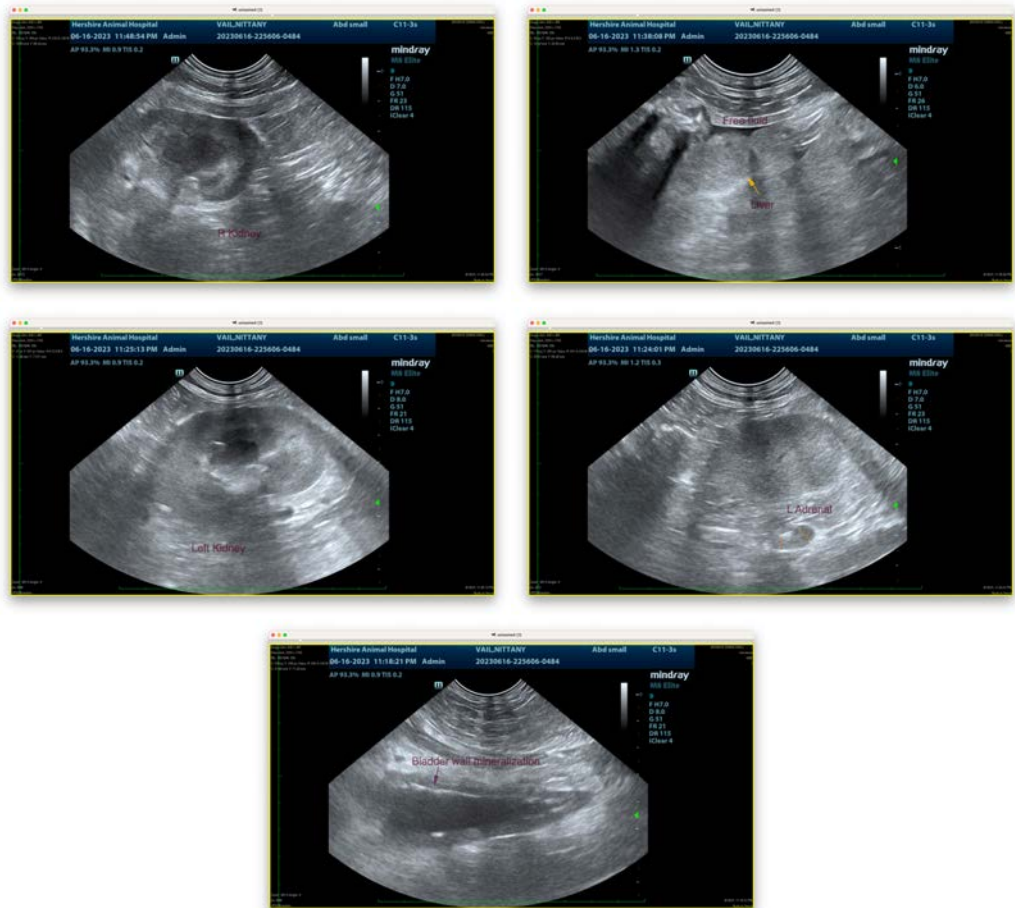
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INVOICE

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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.

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

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