



PATIENT

Max Moster

PRESENTING CLINICAL SIGNS

History: whimpering seems uncomfortable

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Pug

Urinary bladder is subjectively overdistended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Neutered Male

The prostate is unable to be fully visualized in these images, but the area is examined without evident prostatic pathology.

AGE

13

Left kidney is normal in size (4.85 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

WEIGHT

23

Right kidney is normal in size (3.31 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

Adrenal Glands

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Left adrenal gland is unable to be fully visualized in these images, but the area is examined without evident adrenal gland pathology.

Right adrenal gland is normal in size (2.09 cm long x 1.03 cm at cranial pole and 0.83 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BY

Jenn

Spleen

HOSPITAL NAME

Rockaway AH

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

REFERRING VET

Dr. Maniar

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

20882

Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

DATE

1/31/23

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly fluid distended, with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



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The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

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The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

BREED

Pug

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

SEX

Neutered Male

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

AGE

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- Bilateral medullary rim sign - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.

WEIGHT

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- Subjectively overdistended urinary bladder with urinary bladder debris

INTERPRETED BY

Beth Johnson, DVM
DACVIM

- Heterogenous Liver - These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IMAGING PERFORMED BY

Jenn

Given this patients mild kidney and liver changes, a metabolic health screen, including CBC, chemistry panel, and electrolytes is recommended for further evaluation of those organs.

HOSPITAL NAME

Rockaway AH

Additionally, given the mildly overdistended urinary bladder and urinary bladder debris, further assessment of this patients ability to urinate, as a potential source of pain/whining, is recommended, followed by urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

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Dr. Maniar

If a definitive cause is not determined based on above, then further evaluation of the patient for possible orthopedic and/or neurologic causes of pain/whimpering, is recommended.

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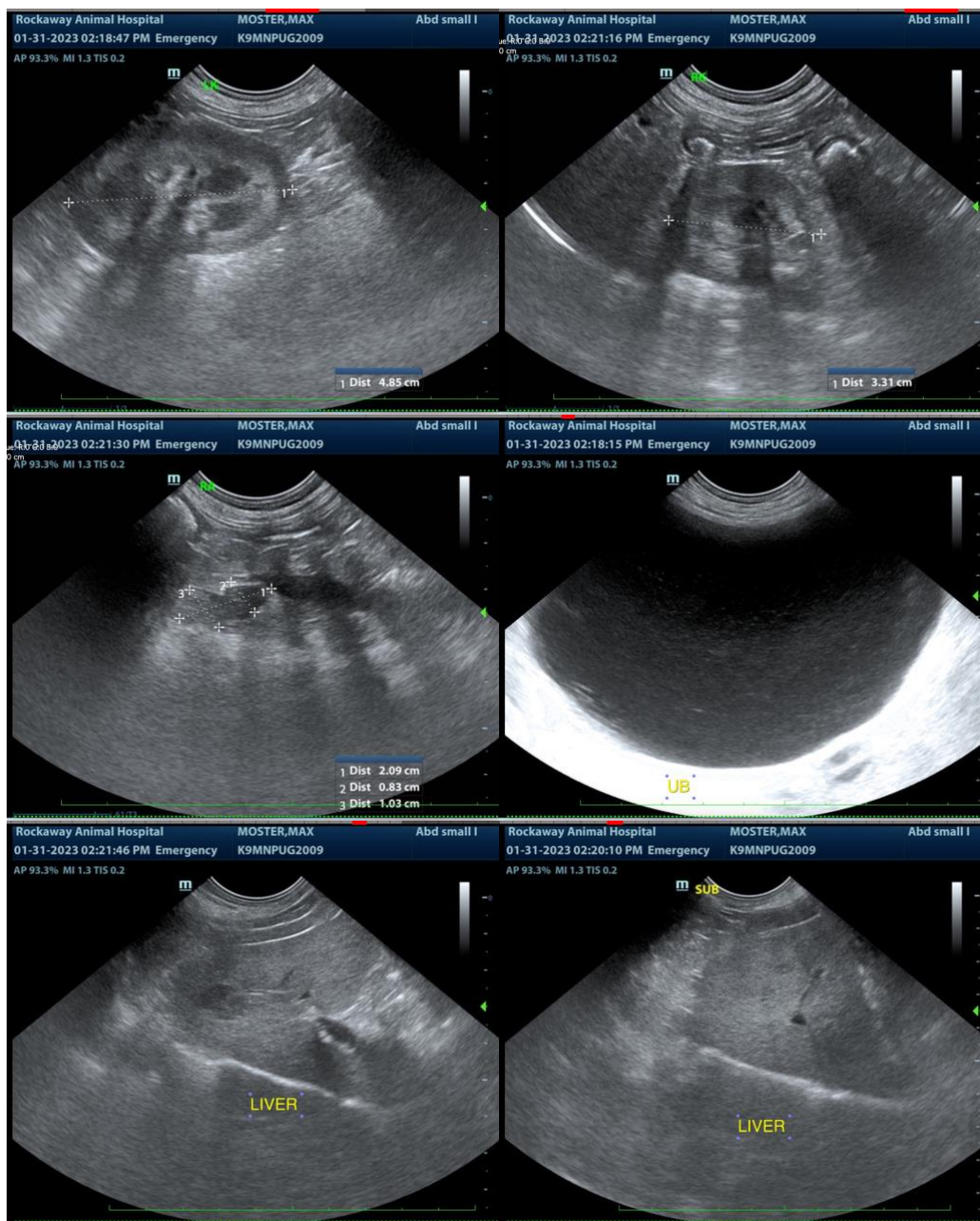
Dr. Maniar

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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.

Beth Johnson, DVM DACVIM

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