



PATIENT

Cocoa Golden

PRESENTING CLINICAL SIGNS

History: Recurring / non responding UTIs No current meds.
Abnormal PE/Chem/CBC/UA Results: 10/8/21: ALT 166, SAP 2328 UA: WBC >50, RBC >50, Rods 26-50, SG: 1.01 (10/8/21) 1.017 (11/9/21)

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Puggle

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended. A small amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

SEX

Female, spayed

The left kidney is normal size (5.53 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is slightly thickened with pinpoint hyperechoic foci. There is mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. A few small cortical cysts are present. Mild to moderate pyelectasia is present (0.39 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

AGE

13 Yrs. 7 Months

The right kidney is normal size (6.11 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is slightly thickened with pinpoint hyperechoic foci. There is minimal loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. A few small cortical cysts are present. Trace pyelectasia is present. There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

WEIGHT

Adrenal Glands

INTERPRETED BY

Andrea Nicastro, DVM,
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(Small Animal Internal
Medicine)

The left adrenal gland is upper limits of normal size (0.71 cm at cranial pole) (0.68 cm at caudal pole) (2.19 cm in length) with a normal shape and smooth peripheral contours. The parenchyma is slightly heterogeneous with minor loss of glandular detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is enlarged +/- a mass effect (1.12 cm at cranial pole) (1.19 cm at caudal pole) (2.73 cm in length) with an irregular shape. The parenchyma is heterogeneous in appearance. Surrounding vasculature appears normal.

IMAGING PERFORMED BY

Jessica Miller

Spleen

The spleen is subjectively normal in size (1.13 cm in width at the level of the hilus) with normal curvilinear peripheral contour. The parenchyma is slightly mottled in appearance with numerous varying sized hyperechoic nodules observed throughout the organ. The echotexture is coarse. Splenic vasculature is normal with no evidence of thrombosis.

HOSPITAL NAME

Andover AH

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely mottled, bordering on a "moth-eaten" appearance. There is also mild heterogeneity throughout the organ. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein: caudal vena cava ratio is approximately 1:1. 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.

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DATE

11/16/21

Gastrointestinal



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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.

SPECIES

Canine

Pancreas

The right limb of the pancreas is prominent to enlarged with minimal deviation from the normal peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and diffusely mottled in appearance. The pancreatic duct is not overtly dilated.

BREED

Puggle

Free Abdomen

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

SEX

Female, spayed

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

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ULTRASONOGRAPHIC FINDINGS

WEIGHT

Primary Findings:

- Bilateral age-related renal changes with dystrophic mineralization. The bilateral pyelectasia could be consistent with pyelonephritis and/or age-related remodeling.
- Right adrenomegaly bordering on a mass effect with mild left adrenomegaly. Differentials include asymmetrical nodular hyperplasia (more severe on the right) vs an emerging right adrenal tumor with left-sided hyperplasia.
- The hepatic parenchymal changes could be consistent with infiltrative neoplasia (i.e., lymphoma) Alternatively, excessive age-related pathology (i.e., regenerative nodular hyperplasia, vacuolar hepatopathy) may be present. Cytology or histopathology would be necessary to differentiate these possibilities.

Secondary Findings:

- 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.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A urine culture and sensitivity is recommended, if not already performed. A prolonged antibiotic course (i.e., 3-4 weeks) based on the urine culture and sensitivity results may be warranted followed by a repeat urine culture and sensitivity 5-7 days after the last antibiotic dose. Thorough evaluation of the external genitalia is recommended to assess for factors that may be predisposing to urinary tract infections (i.e., vaginal masses, etc.).



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- Regarding the hepatic pathology, consider a fine needle aspirate to assess for infiltrative neoplasia. Clotting times should be checked prior to aspiration. A 25-gauge needle should be used for the procedure.

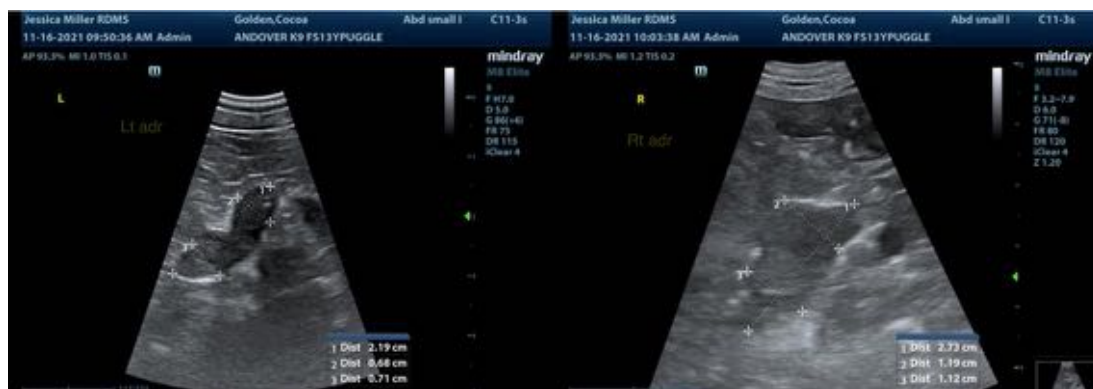
SPECIES

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- Given the patient's age, three-view thoracic radiographs are also recommended to assess cardiopulmonary status.

BREED

Puggle



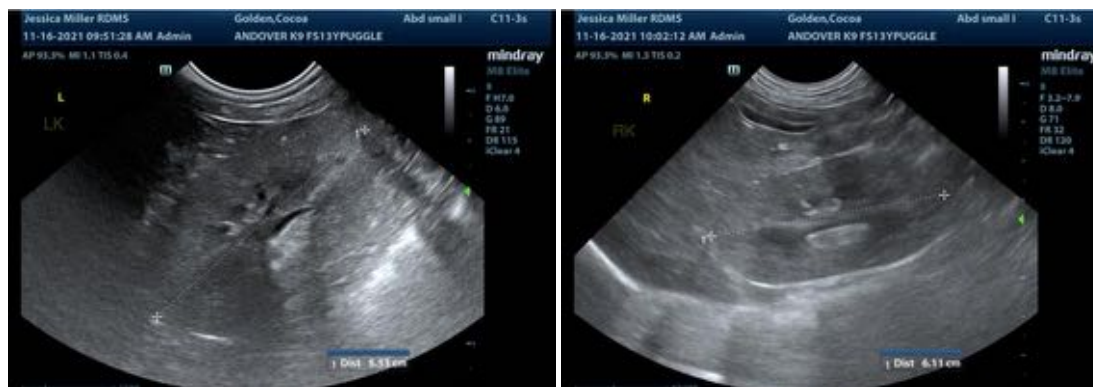
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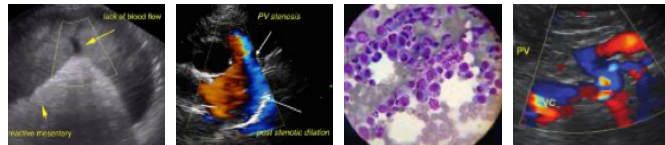
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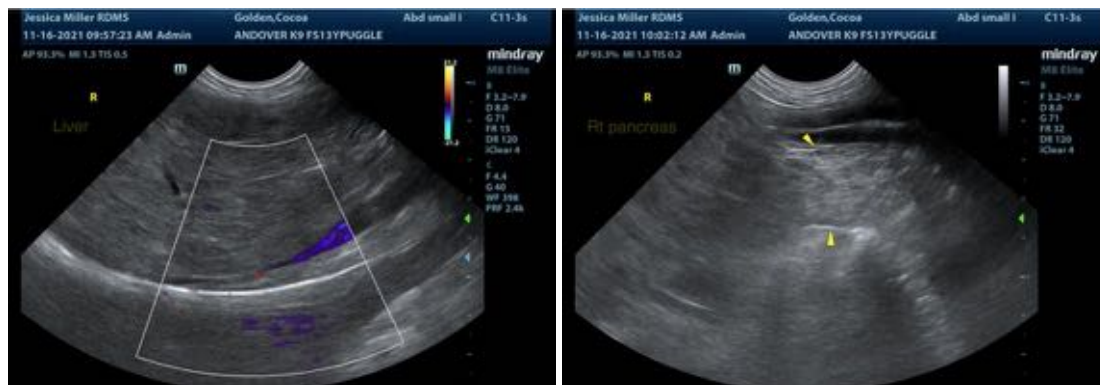
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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