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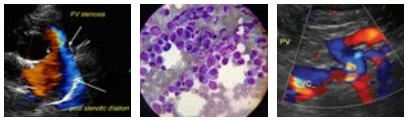

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DATE

5/31/22

PATIENT

Maverick Hughes

SPECIES

Canine

BREED

Bernese Mtn Dog

SEX

Intact Male

AGE

7/10/19

WEIGHT

69 Pounds

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Forest Hill Vet

REFERRING VET

Dr. Saad

INVOICE

38098

PRESENTING CLINICAL SIGNS

Losing weight. Not eating very well. Bad breath. Elevated kidney and liver values.

Current Medications: None listed.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately/mildly distended with anechoic urine. The Bladder wall appears diffusely thickened and irregular, measuring approximately 0.54 cm. The area of the trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear free of any focal mass lesions or calculi. Findings are most consistent with diffuse bacterial cystitis or lack of urine distention with possible polypoid lesions. An underlying neoplastic process cannot be ruled out.

The prostate is large in size, measuring 3.09 cm x 5.78 cm. It is large with smooth external margins, but the parenchyma is severely heterogeneous with discrete hyperechoic regions and less discrete hypoechoic regions, which could be consistent with hypoechoic parenchyma, or even areas of echogenic fluid cavitations. The prostate urethra appears normal with no evidence of irregularity, invasion, mass effect, or calculi.

The left kidney is small at 3.7 cm. It is highly irregular with decreased corticomedullary distinction and pyelectasia at 0.22 cm.

The right kidney is normal/small in size at 4.98 cm and is mildly irregular in shape with decreased corticomedullary distinction.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.48 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.76 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a mild amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It largely measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. There are some areas of the gastric mucosa that appear hypoechoic and thickened with some decrease in distinction of layering. In these regions, the gastric wall measures up to 1.2 cm in thickness. Findings could be consistent with gastritis or underlying infiltrative disease.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. The sublumbar lymph nodes appear slightly irregular and large, measuring approximately 1.04 cm in diameter. The omentum is of normal echogenicity.

Other

Both testicles are visualized. The left testicle appears normal, and the right epididymis appears hypoechoic and thickened at 0.86 cm.

ULTRASONOGRAPHIC FINDINGS

- Diffusely thickened, irregular urinary bladder wall – most suggestive of bacterial cystitis with polypoid lesions, although an underlying neoplastic process cannot be excluded. Recommend urinalysis and culture.

- Large, severely heterogeneous prostate – could be consistent with prostatitis, even early prostatic abscessation. A neoplastic lesion is thought less likely.

- Small, irregular kidneys (particularly the left kidney) with decreased corticomedullary distinction and left-sided pyelectasia – These changes are most consistent with small fibrosed kidneys. This can be seen with a congenital lesion or scarring after renal insult.

- Focal gastric wall thickening – This could be consistent with focal gastritis (uremic gastritis(?)), gastric ulceration, edema, imaging artifact, etc.

- Prominent sublumbar lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

- Prominent right epididymis – Consider epididymitis or anatomic variation.

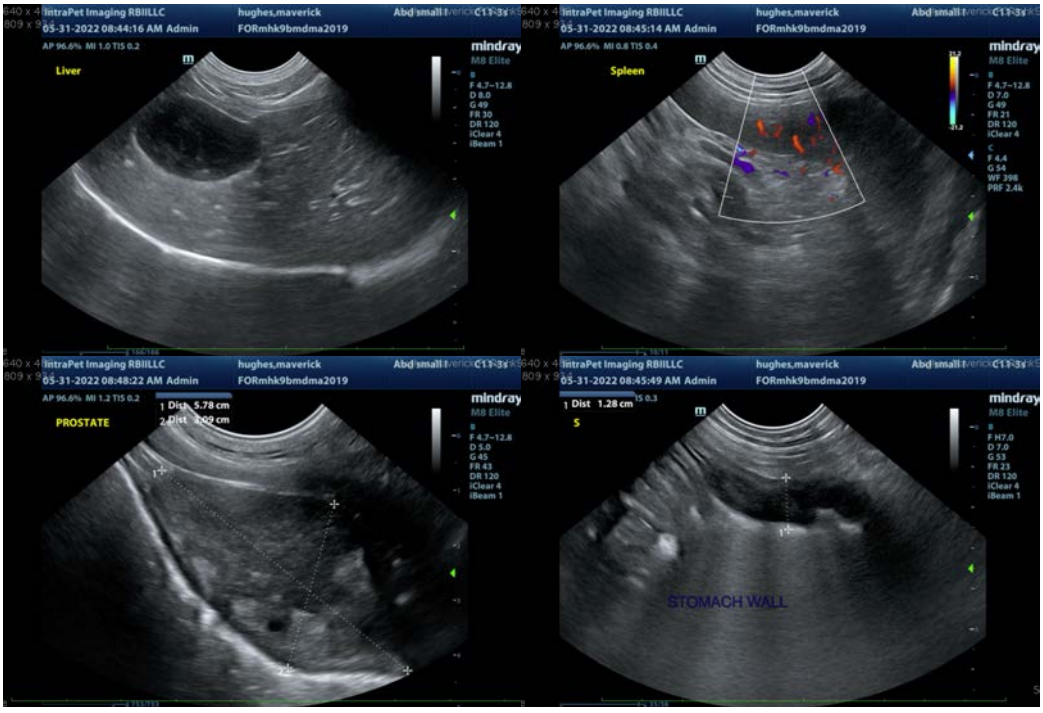
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

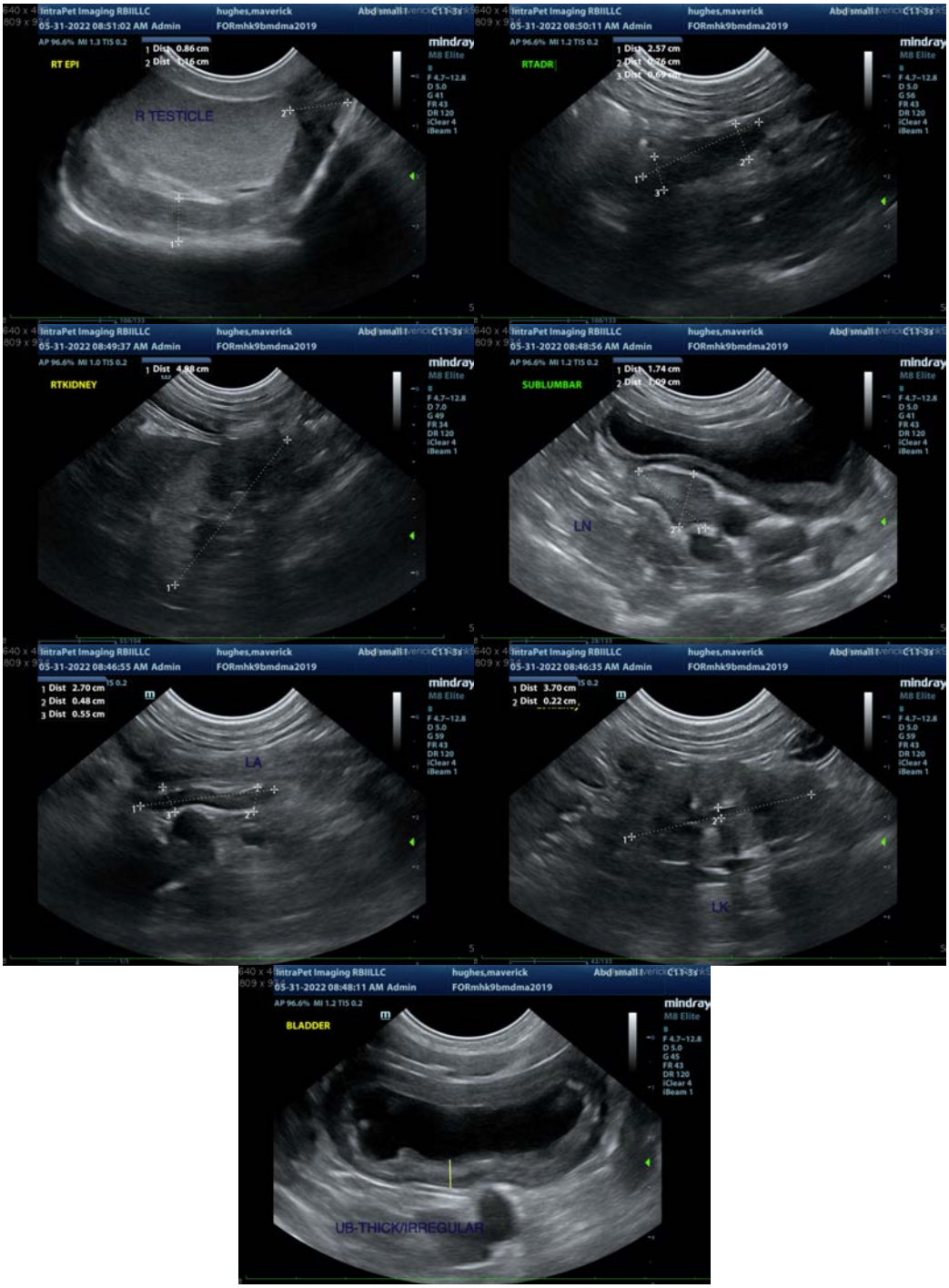
The kidneys are small and irregular, particularly the left kidney, with some pyelectasia. These changes could be consistent with congenital renal dysplasia, or could be consistent with renal injury secondary to chronic infection, prostatitis, etc. Recommend urinalysis and culture +/- fine needle aspirate of the prostate, and diuresis, with the hopes that there is a component of pyelonephritis contributing to the renal disease present. If pyelonephritis is confirmed, then recommend neutering to try and remove the prostate as a nidus of the inflammation, and again consider a fine needle aspirate of the prostate, as some of the hypoechoic regions could be consistent with echogenic lesions (echogenic fluid versus soft tissue?). The urinary bladder should be reevaluated while on antibiotic therapy in the hopes that the lesions observed will resolve, indicating that they are likely inflammatory in nature.

The gastric wall is thickened and irregular in some areas. I suspect this is due to uremic gastritis. Consider anti-ulcer therapy and reevaluation of the stomach, if the azotemia is improving and the patient is feeling better.

The sublumbar lymph nodes are somewhat prominent. I suspect this is due to localized inflammation in the area. Additionally, the epididymis of the right testicle is prominent. Recommend culture and histopathology at the time of castration.

Although this seems unlikely, consider an ACTH stimulation test or baseline cortisol to screen for Addison's, due to this patient's young age.

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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.

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