

**PATIENT**

Bentley Bradshaw

SPECIES

Canine

BREED

Yorkie

SEX

Neutered Male

AGE

10 years

WEIGHT

21 Pounds

INTERPRETED BYBeth Johnson, DVM
DACVIM**IMAGING PERFORMED BY**

Rachel Runnells RVT

HOSPITAL NAMESVS Imaging Kansas
City**REFERRING VET**

Dr. Mervin

INVOICE

30987

DATE

6/13/22

PRESENTING CLINICAL SIGNS

Came in for pre-op BW for dental. Pre-dental BW--mild azotemia (Cr-2.3, BUN-46) with 3+ proteinuria (UPC-6.0). BP-220 Doppler. Started telimsartin (5 mg). No change in BP. Added in amlodipine 1.25 mg. Mild improvement in BP to 190 Doppler. Increased amlodipine to 2.5 mg. BP-still 190 but Creat-4.9. Lepto pcr-pending, 4DX-negative.

Abnormal PE/Chem/CBC/UA Results: Findings from screening US done in house: large liver, mildly hyperechoic, small amount of sludge in bladder. Both kidneys have mild pelvic dilation, some loss of normal renal architecture and mildly hyperechoic. Left adrenal gland-more bulbous shape and odd structure lateral.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is mildly to moderately distended with anechoic contents and echogenic debris. Apical urinary bladder wall is diffusely thick. Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. The bladder wall measures 0.38 cm thick.

Prostate is normal in size, echotexture and echogenicity for a neutered male.

Kidneys are bilaterally normal in size, irregular and diffusely echogenic with decreased corticomedullary distinction and poor visualization of internal architecture. There is no mineral is observed. Renal pelvis is dilated (pyelectasia). No visible obstruction is observed, but cannot be ruled out. Non-obstructive areas of mineralization/nephroliths are noted in the left kidney, primarily in the diverticular of the left kidney. The left kidney measured 4.93 cm and the right kidney measured 4.85 cm.

Adrenal Glands

The adrenal glands are mildly plump enlarged size. The left adrenal gland measured 1.05 cm at the cranial pole and 0.69 cm at the caudal pole. The right adrenal gland measured 0.83 cm at the cranial pole and 0.6 cm at the caudal pole.

Spleen

Spleen is subjectively normal in size with normal smooth margins. Parenchyma is normal in echogenicity and echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged. Margins are smooth but round. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion. Gallbladder is mildly distended with anechoic contents. The wall is smooth without visible thickening. There is no evidence of common bile duct dilation.

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Gastrointestinal

The visible gastric wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm). The stomach lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). There are no luminal contents noted within small intestines.

Colon is normal in wall thickness (< 0.2 cm) and layering.

Pancreas

Pancreas has normal homogenous echotexture and is normal in echogenicity and smooth margination. There is no evidence of peripancreatic inflammation.

Free Abdomen

Lymph nodes are normal with no observed enlargement. There is no free fluid visible in these images.

Medial to the left kidneys is a cystic structure that is most consistent with a cystic lymph node and measures 1.0 x 2.0 cm in size and is surrounded by enhanced hyperechoic fat.

ULTRASONOGRAPHIC FINDINGS**PRIMARY FINDINGS:**

Chronic Cystitis – Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.

Chronic Kidney Disease – This appearance of the kidneys is consistent with chronic kidney disease such as chronic glomerular or interstitial nephritis, chronic pyelonephritis, etc.

Pyelectasia – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.

Non-obstructive left nephrolith.

Cystic lymph node medial to the left kidney, often associated with chronic pyelonephritis/chronic urinary tract infections.

Hyperechoic hepatomegaly – most consistent with benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible, but considered less likely.

Bilateral adrenomegaly – consistent with adrenal hyperplasia secondary to pituitary depending hyperadrenocorticism vs normal variant.



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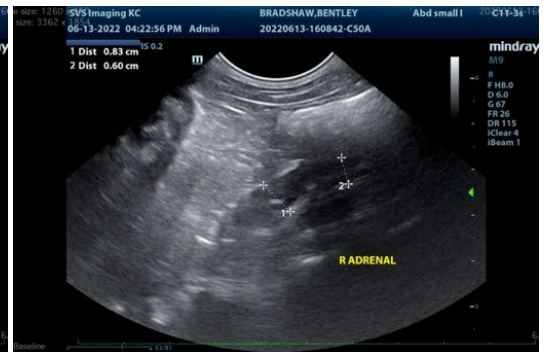
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Recommendations for this patient include management of the protein losing nephropathy as is reportedly already in place. However, if kidney friendly diet is not being fed that is a change that can be considered. Fatty acids can be added and if anti-thrombotics such as Plavix are not being administered that should be considered as well. Leptospirosis testing is recommended and reportedly already pending. Finally given the urinary bladder, kidneys and lymph node changes urinary tract infection possibly pyelonephritis are considered a possible contributing factor to the recent increase in creatinine. Therefore, a urine culture is recommended if not recently evaluated. Despite culture results an empirical course of antibiotics can be considered with monitoring of the creatinine for possible improvement. Incidentally the bilateral adrenomegaly and hepatomegaly could be suggestive of hyperadrenocorticism; however, without clinical signs of hyperadrenocorticism testing is not necessarily indicated.



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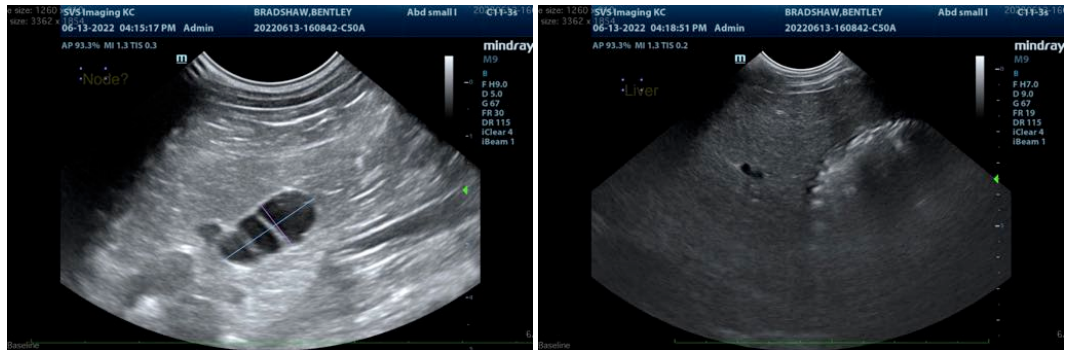
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Beth Johnson, DVM DACVIM

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