

**DATE PRESENTING CLINICAL SIGNS**

7/19/23 History: Recently dx Cushings pt. Check adrenals and gallbladder.

PATIENT

Chloe Brooks

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.
 Imaging Performed By: Rachel Brillhart, RDMS.

SPECIES

Canine

BREED

Pitbull Mix

SEX

Spayed Female

AGE

12/19/10

WEIGHT

56.6 Pounds

INTERPRETED BY

Eric Lindquist, DMV
 DABVP, Cert. IVUSS

HOSPITAL NAME

Maryland Mobile VC

REFERRING VET

Dr. Hahn

INVOICE

23496

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex. Slight pyelectasia was noted in the left kidney. The capsules were acceptably uniform without significant irregularities. The right kidney measured 5.6 cm. The left kidney measured 5.6 cm.

Adrenal Glands

Structurally, the **adrenal glands** appear normal in this patient. The left adrenal gland measured 2.56 cm x 0.67 cm at the caudal pole and 0.65 cm at the cranial pole. The right adrenal gland measured 2.88 cm x 0.59 cm at the caudal pole and 0.55 cm at the cranial pole.

Spleen

The **spleen** presented discrete and diffuse hypoechoic micronodular parenchyma. The capsule was generally smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. These changes are consistent with age related benign nodular hyperplasia. However, early hemangiosarcoma, lymphoma or mast cell neoplasia could not be entirely ruled out. Fine needle aspirate or biopsy following coagulation panel would be ideal especially if any weight loss is an issue. Otherwise, follow up ultrasound in 3-4 weeks to track these changes would be a more conservative approach. This is a minor change.

Liver

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some minor age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. An isoechoic (4.5 cm) nodule in the left medial liver. Other hypoechoic nodular changes were noted in the liver.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

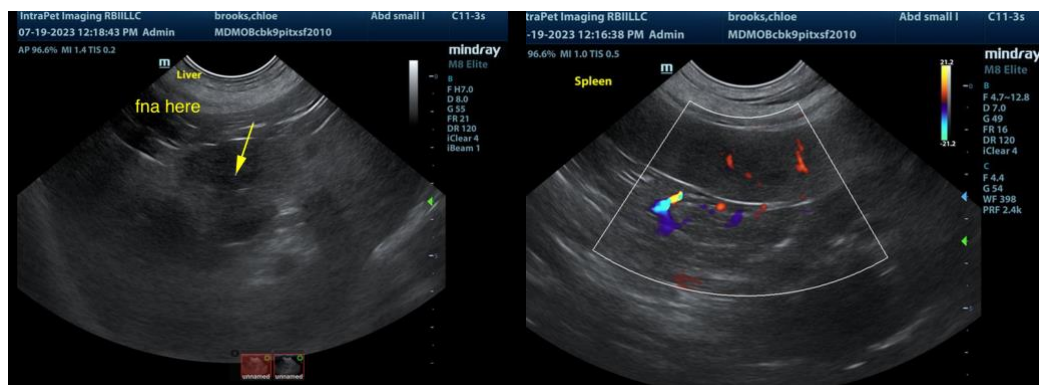
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

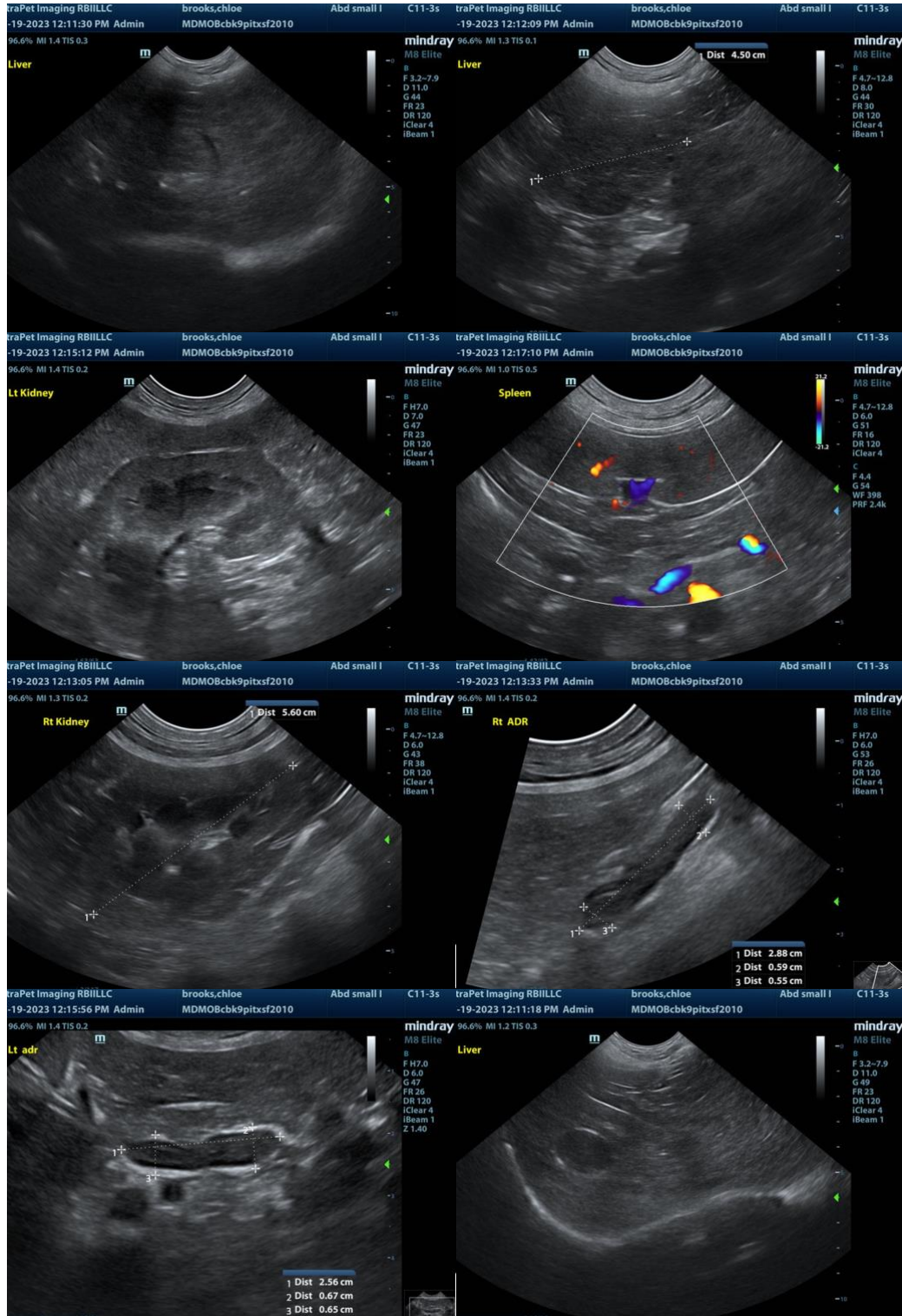
ULTRASONOGRAPHIC FINDINGS

- Hepatic remodeling and focal nodule- hepatoma or nodular hyperplasia suspected.
- Micronodular hyperplasia splenic pattern
- Pyelectasia in the left kidney
- Age-related abdominal changes elsewhere

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid profile and general hepatic FNA and nodular FNA are warranted. I recommend urine cortisol to creatinine ratio, if elevated, then emerging PDH may be occurring, as a small percentage of patients with normal adrenal measurements can have PDH. Approximately 10-15% of PDH patients are in this category, however, given that urine specific gravity is not true PU/PD, i.e., <1.020, I do not necessarily recommend treatment for Cushings at this point, unless urine cortisol to creatinine ratio is elevated, as the ACTH stimulation may be a false positive. Full adrenal panel (to University of Tennessee) is warranted. Doxycycline trial or empirical treatment for occult UTI would be warranted given the renal pyelectasia, hematuria and proteinuria. Blood pressure measurements are also indicated, as this would be a positive predictive factor also for Cushings.





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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