



PATIENT PRESENTING CLINICAL SIGNS

Lola Mooney History: Diabetic, PU/PD, suspect mild hepatomegaly, suspect Cushing too? Current meds: Novolin 2u BID

SPECIES

Abnormal PE/Chem/CBC/UA Results: BG 242, Fruct 415, ALP 2331 UA: 2+ sugar, 3+ protein, urine culture neg SG: 1.037

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Urinary System

Chihuahua

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A scant amount of 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 1-2 cm, are normal.

SEX

Spayed Female

The **left kidney** is normal size (4.69 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A hyperechoic medullary band is adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

AGE

7 years

The **right kidney** is normal size (5.31 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. A hyperechoic medullary band is adjacent to the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

14.5 lbs

Adrenal Glands

The **left adrenal gland** is normal size (0.46 cm at cranial pole) (0.50 cm at caudal pole) (2.38 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INTERPRETED BY

Andrea Nicastro,
DVM, Diplomate
ACVIM (*Small Animal
Internal Medicine*)

The **right adrenal gland** is mildly enlarged (1.05 cm at cranial pole) (0.59 cm at caudal pole) (1.73 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

IMAGING PERFORMED BY

Jessica Miller

Spleen

The **spleen** is normal in size (1.12 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

HOSPITAL NAME

Animal Gen Hudson

Liver

The **liver** is prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

REFERRING VET

Dr. Lang

The **gall bladder** 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/not seen.

INVOICE

11382

Gastrointestinal

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

DATE

8.11.22

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. There is no evidence of an obstructive pattern.

Pancreas

The region of the **pancreas** is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The **peritoneal cavity** is normal. There is no evidence of inflammation or effusion. The abdominal **lymph nodes** are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

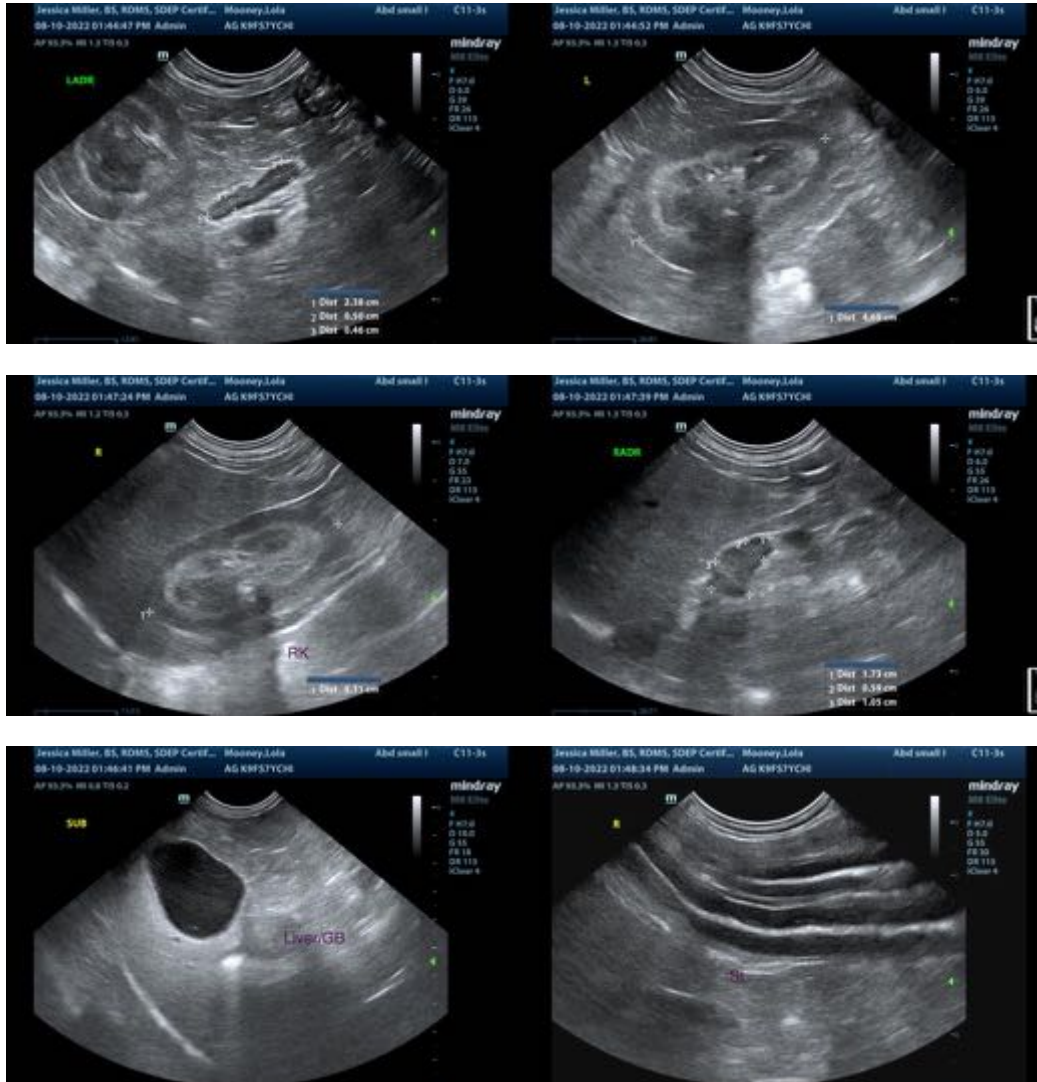
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- Gall bladder debris – incidental
- The mild right adrenomegaly may be a normal variant for this patient or may be secondary to early hyperplasia change.

Secondary Findings

- The medullary band seen in both kidneys may be a benign incidental finding. Alternatively, subclinical renal disease may be present.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Given the proteinuria, a UPC is recommended.
- Thoracic radiographs can also be considered to assess for occult disease in the chest that may be causing insulin resistance.
- Consider further testing for Cushing's Disease (i.e., low-dose dexamethasone suppression test or ACTH stimulation test). If Cushing's Disease is not present, adjustment of the patient's insulin dose may be warranted.



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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com