



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Druppy Gonzalez
SPECIES Canine
BREED Beagle
SEX Neutered Male
AGE 14 years
WEIGHT 36 lbs

PRESENTING CLINICAL SIGNS
History: Presented for abdominal ultrasound for screening/geriatric ultrasound and also to investigate abdominal distention and r/o abnormalities in liver. Pt has a history of Cushing's disease and was controlled based on ACTH stim in May 2023 and p is on 30mg of trilostane SID. Also pt has anemia, blood loss vs inflammation / infection vs neoplasia (?) vs Cushing's

Abnormal PE/Chem/CBC/UA Results: BW: CBC: Hematocrit 32.4 37.3 - 61.7 %, Hemoglobin 11.6 13.1 - 20.5 g/dL, RBC 5.37 5.65 - 8.87 M/ μ L, Reticulocyte Hemoglobin 21.5 22.3 - 29.6 pg, Neutrophils 12.96 2.95 - 11.64 K/ μ L, Basophils 0.12 0.00 - 0.10 K/ μ L, Platelets 530 148 - 484 K/ μ L
CHEM: BUN 47 7 - 27 mg/dL, Creatinine 1.3 0.5 - 1.8 mg/dL, ALT 315 10 - 125 U/L, ALP 778 23 - 212 U/L

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. A moderate to large amount of suspended echogenic debris, along with a small-to-moderate amount of gravity-dependent mineralized sand is observed within the lumen. The sand extends into the prostatic urethra. A 1.40 x 1.36 cm irregular, echogenic, vascular mass is arising from the ventroapical aspect. The remaining bladder wall (particularly in the region of the apex) is slightly irregular. No cystic calculi are observed.

The prostate is subjectively normal in size (1.24 cm in width) with normal curvilinear peripheral contours. An ill-defined hyperechoic-to-mineralized area is observed within the parenchyma. The remaining parenchyma is homogenous. Mineralized sand is observed within the prostatic urethra.

The left kidney is normal in size (5.68 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Mild pyelectasia is present (0.31 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (5.96 cm in length) with a normal shape, architecture and smooth peripheral margins. The cortex is isoechoic relative to the spleen. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A few, small cortical cysts are seen. Mild pyelectasia is present (0.26 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.69 cm at cranial pole) (0.87 cm at caudal pole) (2.76 cm in length) with a slightly irregular shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is enlarged (0.93 cm at cranial pole) (0.84 cm at caudal pole) (3.03 cm in length) with a slightly irregular shape. A 1.02 x 0.97 cm hyperechoic nodule is observed at the cranial pole. Glandular echogenicity and detail at the caudal pole are normal. Surrounding vasculature appears normal.

Spleen

The spleen is subjectively normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. A few, irregular, hyperechoic myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr Gabriel Ferrer
DVM

HOSPITAL NAME

Pulse: Pet
Ultrasound Svc

REFERRING VET

Celeste Quiñones

INVOICE

14169

DATE

8.18.23



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Liver

The liver is subjectively enlarged with swollen/rounded peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogenous in appearance. A 0.89 cm cystic lesion is observed deep on the left side. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is moderately distended. The wall is diffusely thickened (up to 0.20 cm) and hyperechoic. A small amount of aggregated, echogenic debris is observed within the lumen (some of which is partially dependent and some of which is adhered to the luminal surface). The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. Linear striations are observed in the proximal duodenal mucosal layer. The remaining small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. The small intestinal lumen is not dilated. Discrete masses are not identified. The ileocecolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas

The base and limbs of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic 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

- Urinary bladder mass. Differentials include neoplasia (i.e., transitional cell carcinoma) or a focal inflammatory process (i.e., polypoid cystitis). Urinary bladder debris and mineralized sand is present within the bladder and proximal urethral lumen.
- Bilateral chronic renal changes. The bilateral pyelectasia may be secondary to age-related remodeling (i.e., pyelonephritis, PU/PD (if applicable)), or some combination thereof.
- The hepatic parenchymal changes are nonspecific and may be secondary to vacuolar hepatopathy, regenerative nodular hyperplasia, inflammatory disease (i.e., chronic hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), other hepatopathy.
- The gallbladder wall changes could be consistent with cholecystitis and/or benign age-related hyperplasia.

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.
- Bilateral adrenomegaly. The right adrenal nodule could be consistent with a focus of hyperplasia, adenoma, adenocarcinoma, pheochromocytoma. A benign process is favored.



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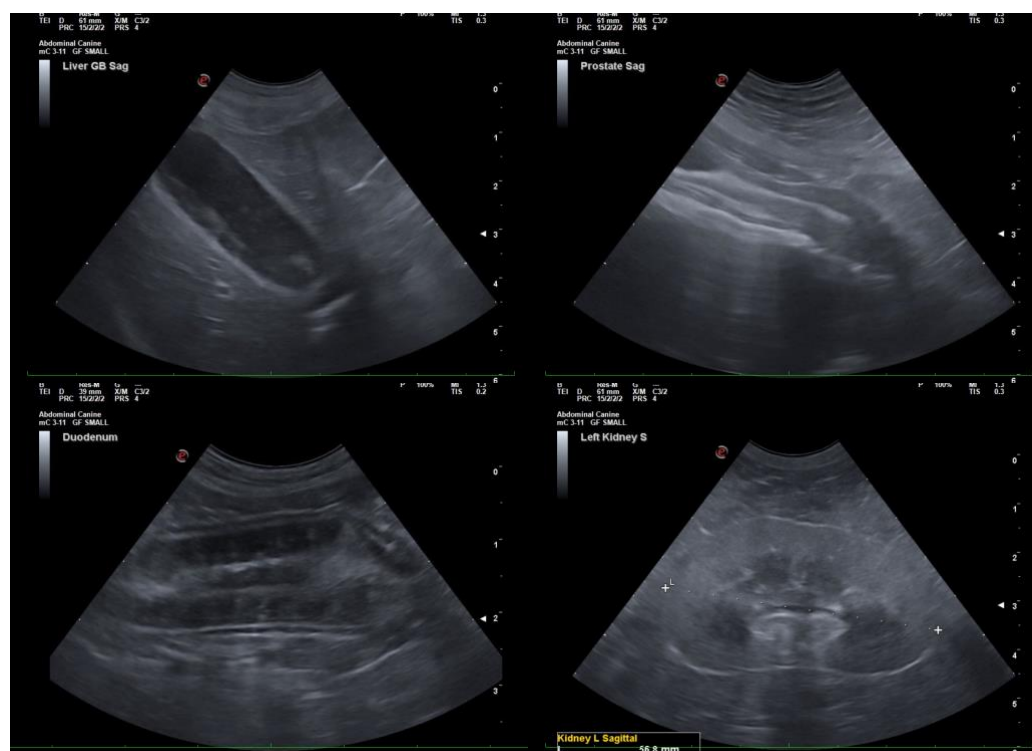
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- The mucosal striations in the duodenal mucosa may be due to lymphangiectasia, an inflammatory process or may be a normal variant for this patient. Correlation with the patient's clinical history is recommended.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the urinary bladder mass, a urine BRAF test is recommended to further assess for lower urinary tract neoplasia. It should be noted that a positive test confirms cancer. However, a negative result does not rule out the possibility of neoplasia, and further testing (i.e., biopsies) or traumatic catheterization may be necessary to get a definitive diagnosis.
- Also consider a urine culture and sensitivity (preferably obtained via catheterization) to assess for infection.
- Regarding the liver enzyme elevations and hepatic parenchymal changes, consider pre-and postprandial serum bile acids +/- hepatic tissue sampling (i.e., fine-needle aspirate or biopsies), if clotting status is appropriate. If biopsies are pursued, hepatic copper quantitation should be performed, and aerobic and anaerobic bile cultures obtained.
- Given the patient's age and possibility of urinary bladder neoplasia, three-view thoracic radiographs should be considered to assess cardiopulmonary status.





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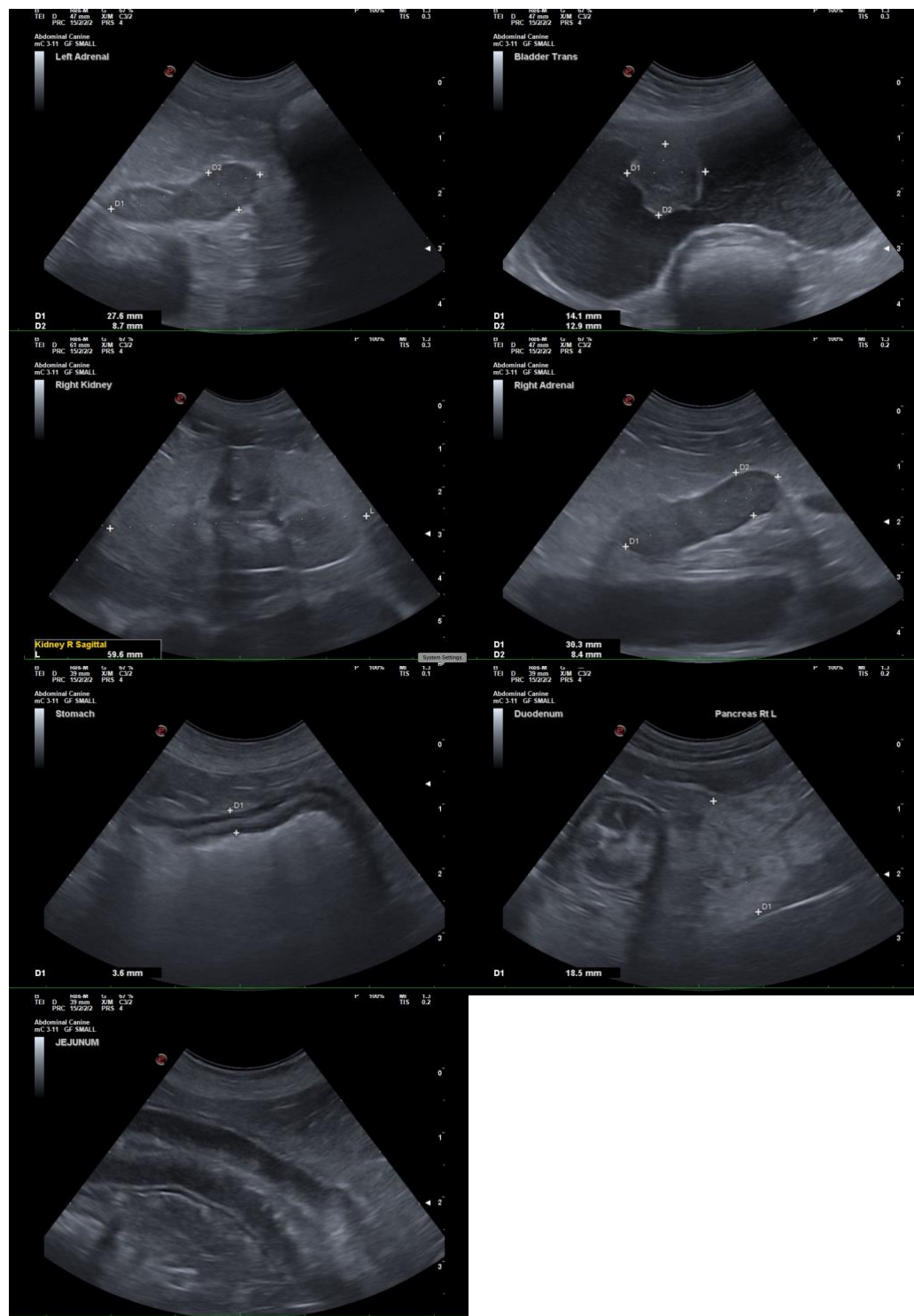
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.



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