

**DATE PRESENTING CLINICAL SIGNS**

1/18/22 History: PU/PD for 4 months gradually getting worse. O has decreased the amount of food being fed but O generally still has a good appetite. LDDST normal and NOT suggestive of Cushing's Dz. Discussed possibilities of Cushing's Dz despite normal LDDST vs. other disease such as cancer.

PATIENT

Rogue Davis Lab Results: Attached separately.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**BREED**

Border Terrier

Urinary System

Urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Neutered Male

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

AGE

1/1/08

Right kidney is normal in size (4.74 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

WEIGHT

26.6 Pounds

Left kidney is normal in size (5.12 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

INTERPRETED BYBeth Johnson, DVM
DACVIM**Adrenal Glands**

Right adrenal gland is normal in size (2.0 cm long x 0.76 cm thick), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

IMAGING PERFORMED BYStephanie Pearce
RDMS, RVT

Left adrenal gland is normal in size (2.0 cm long x 0.56 cm at the cranial pole and 0.75 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). A 0.5 cm round, hypoechoic nodule was noted in the mid body that is non-capsule disrupting (see other). Splenic vasculature appears normal.

HOSPITAL NAME

Creswell VH

REFERRING VET

Dr. Cullum

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.

INVOICE

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The gallbladder contains a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

Pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy (see other).

Other

An approximately 1.0 cm round nodule medial to the tail of the spleen was noted, which is isoechoic to the spleen, except for a small, cavitated center.

ULTRASONOGRAPHIC FINDINGS

- Early mucocele – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.
- 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.
- Hypoechoic splenic nodules – Differentials include benign extramedullary hematopoiesis or nodular hyperplasia versus infiltrative neoplasia such as round cell neoplasia, which is possible but less likely.
- Round nodule medial to the tail of the spleen – Similar in appearance to the splenic parenchyma. However, this cannot be definitively attached to the spleen. Differentials include a splenic nodule versus a cavitated lymph node in the area.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

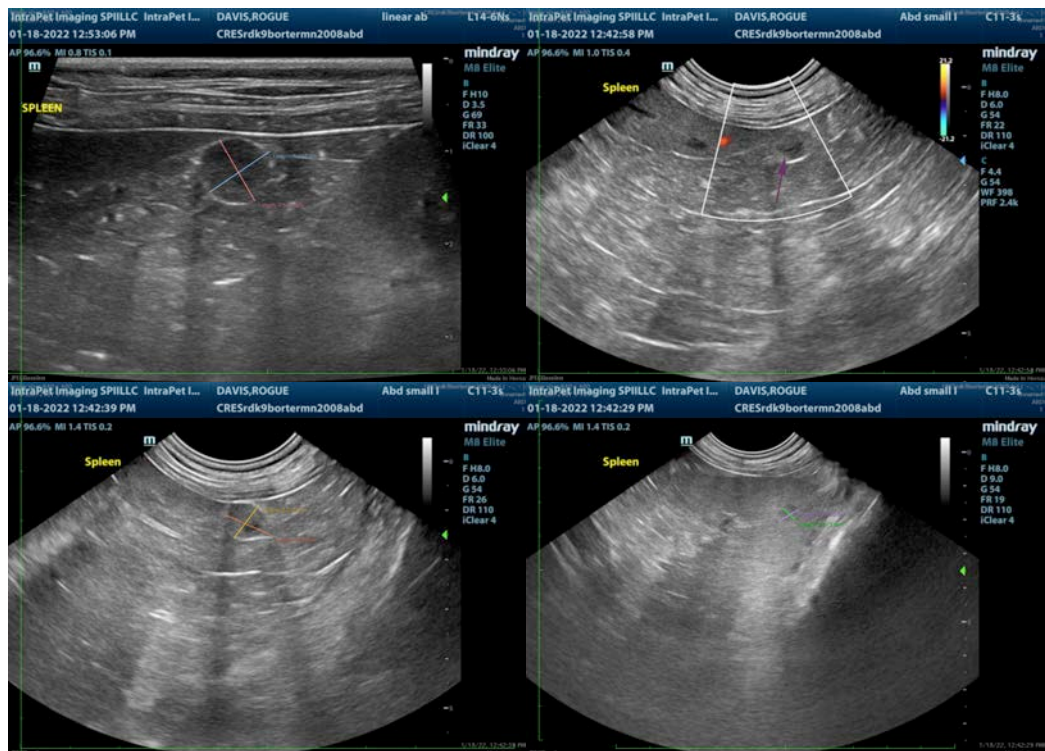
Polyuria/polydipsia – Differentials are vast and include, but are not limited to, primary polyuria caused by chronic kidney disease, pyelonephritis, liver disease, diabetes mellitus, hyperthyroidism, hypercalcemia, hyperadrenocorticism, hypoadrenocorticism, E.coli infectious ie) pyometra in females, polycythemia, central diabetes insipidus or primary nephrogenic diabetes insipidus or primary polydipsia caused by psychogenic polydipsia, fever, pain or central nervous system disease.

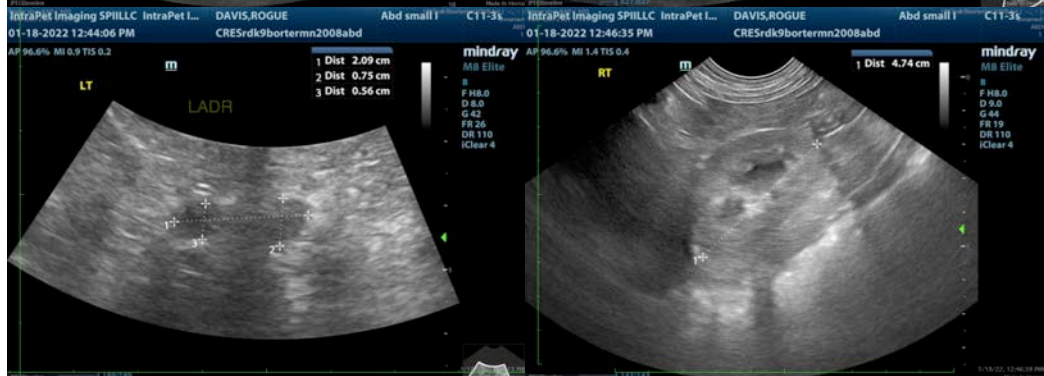
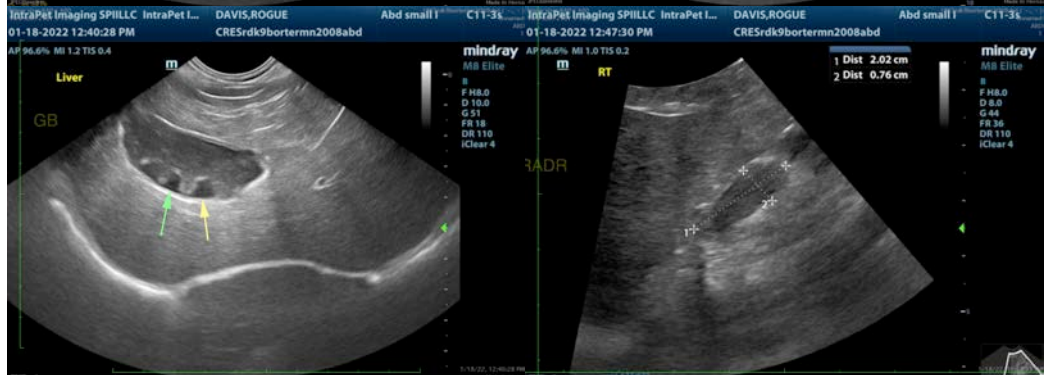
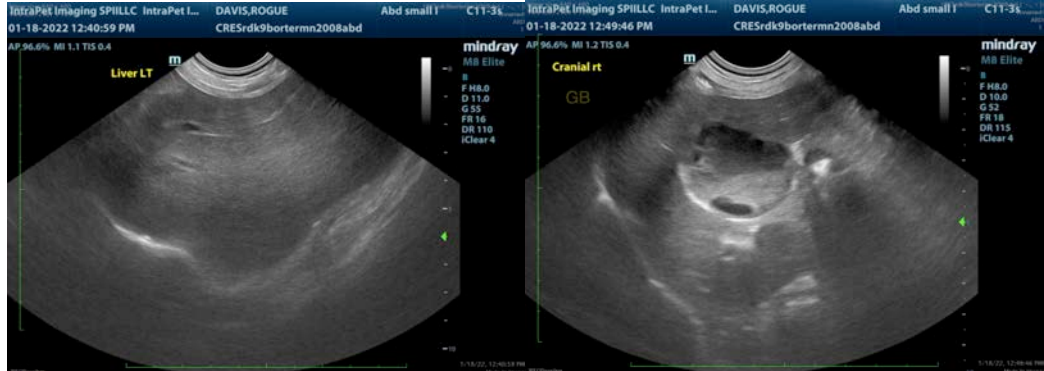
Most causes of PU/PD can be diagnosed with a comprehensive history and physical exam, a first AM urine specific gravity to see if urine concentration is possible (as most animals drink less overnight) followed by a comprehensive CBC, serum chemistry panel, electrolytes and urinalysis. If not, next step(s) should include a urine culture, low dose dexamethasone suppression test, T4, bile acids, Leptospirosis testing and/or an empirical course of antibiotics. If a diagnosis is still not obtained, a more advanced work-up is recommended.

Given the normal low-dose Dexamethasone suppression test in this patient, atypical hyperadrenocorticism is still a possibility and can be tested in the form of a full adrenal panel, testing cortisol and precursor hormones sent to the University of Tennessee endocrinology lab.

Pending the results of the aforementioned diagnostics, other diagnostic recommendations include a fine needle aspirate of the liver as well as the nodule medial to the tail of the spleen if patient's coagulation status is appropriate.

Finally, empirical therapy with Ursodiol and broad-spectrum antibiotics to address the gallbladder changes could be considered with monitoring for improvement in gallbladder appearance as well as clinical signs. If clinical signs of a mucocele are present (including decreased appetite, vomiting, cranial abdominal pain, etc.), a cholecystectomy may be considered.





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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