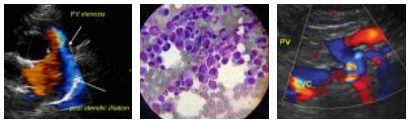
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

3/13/23

PATIENT

Montana Siebert

SPECIES

Canine

BREED

Goldendoodle

SEX

Neutered Male

AGE

10/1/09

WEIGHT

68.6 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Jacksonville VH

REFERRING VET

Dr. Burk

INVOICE

21626

PRESENTING CLINICAL SIGNS

History: PU/PD will only eat if hand fed; history of splenectomy 2011. BCS 5/9 MM/CRT WNL Heart/Lungs clear Liv/abdomen NSF

Current Medications: gabapentin 100mg 2 capsules q 12 hrs, denamarin large dogs 1 tab daily, entyce
Lab Results: ALT 128 (12-118), Urine SG 1.014, Urine C+S no growth, Lepto PCR blood and urine negative
Radiographs: spondylosis, hip dysplasia
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No discrete cystoliths are observed. Along the dorsoapical wall, there is an approximately 1.0 cm in diameter, echogenic density that appears vascular and appears adhered to the wall. Otherwise, the urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

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

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The right kidney measures 6.44 cm. The left kidney measures 6.24 cm.

Adrenal Glands

Left adrenal gland is normal in size (2.61 cm long x 0.83 cm at cranial pole and 1.0 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (2.76 cm long x 0.74 cm at cranial pole and 0.78 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen has been previously removed.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.
The visible small intestines are normal in wall thickness and layering. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas
The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- A urinary bladder wall density that may represent scarring or adhesions from the previously reported urinary bladder trauma/surgery, however, a benign polyp or even infiltrative neoplasia, such as carcinoma vs other, i.e., leiomyoma, leiomyosarcoma, etc., can't be ruled out.

- Heterogenous liver- These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- Mild gallbladder debris- 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. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

Secondary Findings

- Age-related kidney changes

- This patients spleen has been previously removed.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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 infections i.e., pyometra in females, polycythemia, central diabetes insipidus or primary nephrogenic diabetes insipidus.

Primary polydipsia caused by psychogenic polydipsia, fever, pain, or central nervous system disease.

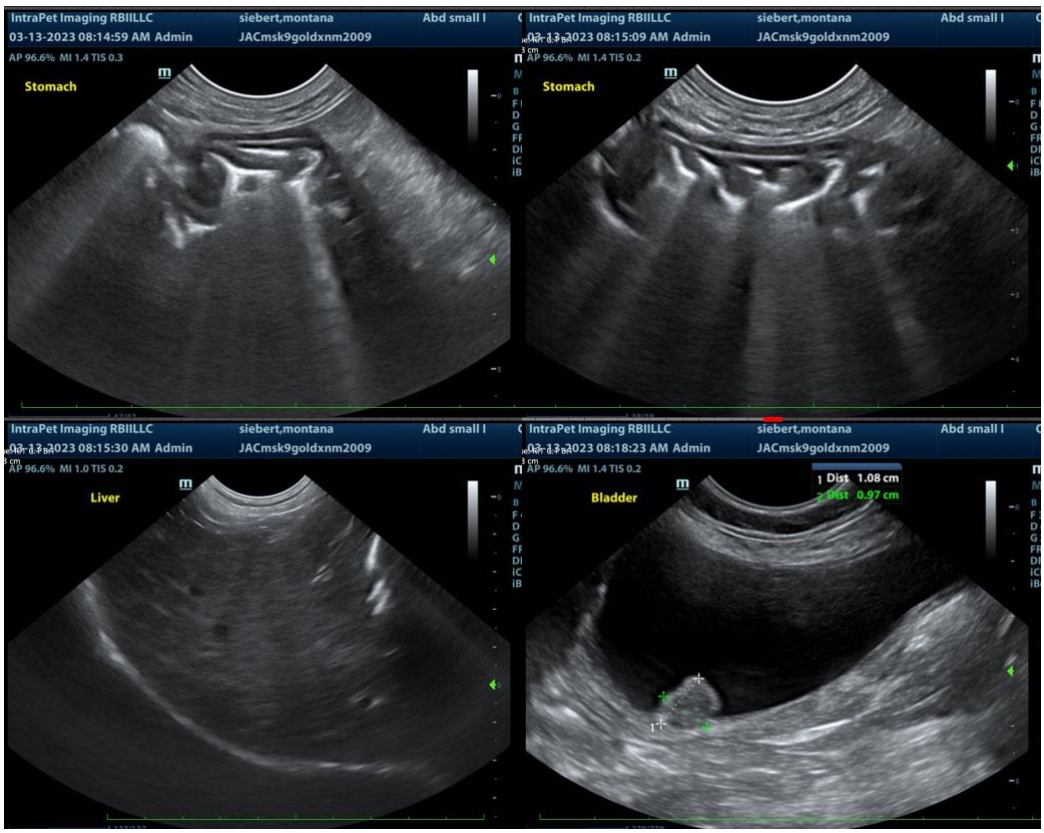
Most causes of PU/PD can be diagnosed with a comprehensive history and physical exam, a first AM urine specific gravity to see if urine concentration is possible (as most animals naturally consume less water overnight) followed by a comprehensive CBC, serum chemistry panel, electrolytes, and urinalysis.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

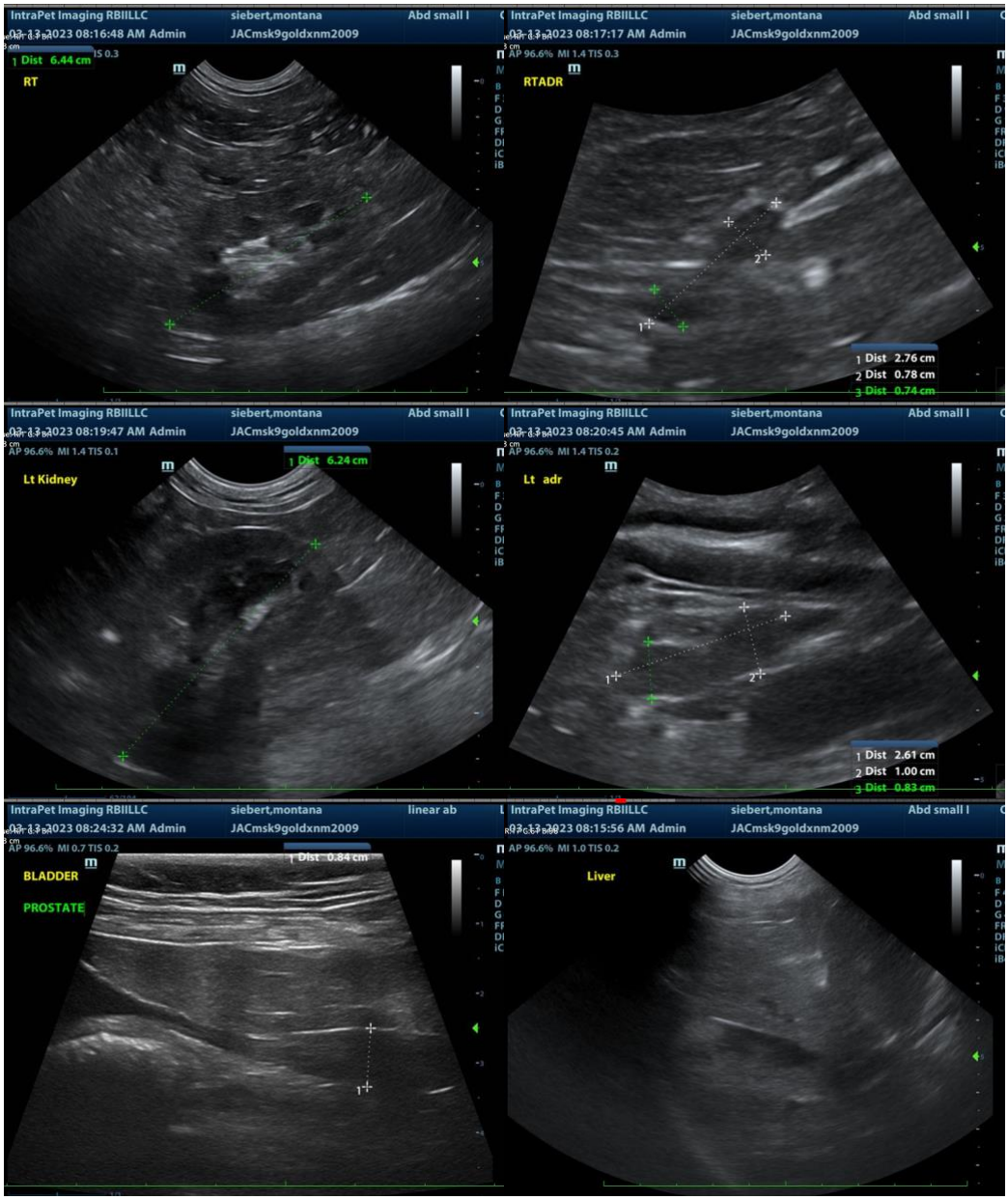
If a diagnosis is still not obtained, a more advanced work-up is indicated and consultation with an internist may be warranted.

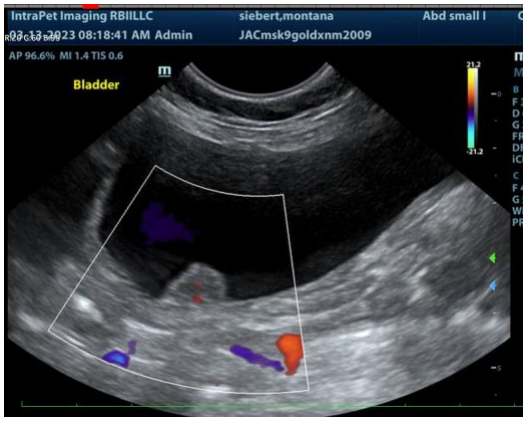
There is not a definitive ultrasonographically visible explanation for this patients reported PU/PD, especially in the face of a decreased appetite, which makes hyperadrenocorticism less likely.

Given the changes that are present, next steps could include bile acids, as well as potentially a fine needle aspirate of the liver, if patients coagulation status is appropriate.

Additionally, submission of urine to look for BRAF gene mutation, which is associated with urinary bladder/prostate cancer could be considered. Or other diagnostic options for the urinary bladder lesion include traumatic catheterization, or a fine needle aspirate with small risk of tumor seeding/trailing, or even cystoscopy for further sampling, if possible.




IntraPet Imaging RBIILLC
siebert,montana
Abd small I
JACmsk9goldxnm2009
1 Dist 6.44 cm
RT
IntraPet Imaging RBIILLC
siebert,montana
Abd small I
JACmsk9goldxnm2009
AP 96.6% MI 1.4 TIS 0.3
RTADR
1 Dist 2.76 cm
2 Dist 0.78 cm
3 Dist 0.74 cm
IntraPet Imaging RBIILLC
siebert,montana
Abd small I
JACmsk9goldxnm2009
AP 96.6% MI 1.4 TIS 0.1
1 Dist 6.24 cm
Lt Kidney
IntraPet Imaging RBIILLC
siebert,montana
Abd small I
JACmsk9goldxnm2009
AP 96.6% MI 1.4 TIS 0.2
Lt adr
1 Dist 2.61 cm
2 Dist 1.00 cm
3 Dist 0.83 cm
IntraPet Imaging RBIILLC
siebert,montana
linear ab
JACmsk9goldxnm2009
AP 96.6% MI 0.7 TIS 0.2
1 Dist 0.84 cm
BLADDER
PROSTATE
IntraPet Imaging RBIILLC
siebert,montana
Abd small I
JACmsk9goldxnm2009
AP 96.6% MI 1.0 TIS 0.2
Liver



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.

Beth Johnson, DVM DACVIM
Beth.Johnson@SonoPath.com