

**DATE PRESENTING CLINICAL SIGNS**

8/2/23

Chronic history of urinary incontinence; worsening. Increased thirst. Incontinence did not respond to Proin, Incurin, or Cephalexin trial. On exam, a colleague noted 8/9 BCS, fractured tooth, right elbow thickening, multiple lipomatous masses, T/L discomfort and small cataracts

PATIENT

Lexi Alexander

Current Medications: Cephalexin 1000 mg BID #56 -- prescribed 6/15/23, Apoquel 16 mg SID -- chronic Proin 40 mg BID -- Chronic until June, then changed to: Incurin 1 mg -- 2 PO q 24 hr x 2 weeks then 1 PO q 24 hr

SPECIES

Canine

Lab Results: CBC: WNL. Chem: Mildly increased SDMA. T4: WNL. U/A: SG = 1.004, pH = 8, 4 WBC/hpf
Low colony count urine culture (after antibiotics): no growth

BREED

Lab

Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Warga RDCS, RVT.

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**AGE**

9/3/11

Urinary System

The urinary bladder is moderately subjectively overdistended with anechoic contents, which is consistent with this patient's history of PU/PD. 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.

WEIGHT

84.6 Pounds

The right kidney is normal in size (6.54 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

The left kidney is normal in size (6.1 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.

HOSPITAL NAME

Paradise AH

Adrenal Glands

The right adrenal gland is normal in size (0.81 cm at the cranial pole and 0.63 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

REFERRING VET

Dr. Twardzik

The left adrenal gland is normal in size (0.58 cm at the cranial pole and 0.46 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

INVOICE

44587

Spleen

The 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). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

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 (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

The 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 free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

ULTRASONOGRAPHIC FINDINGS

- Other than a mildly overdistended urinary bladder consistent with this patient's history of PU/PD, this is a relatively unremarkable/normal abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Differentials for PU/PD 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 (ie) 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.

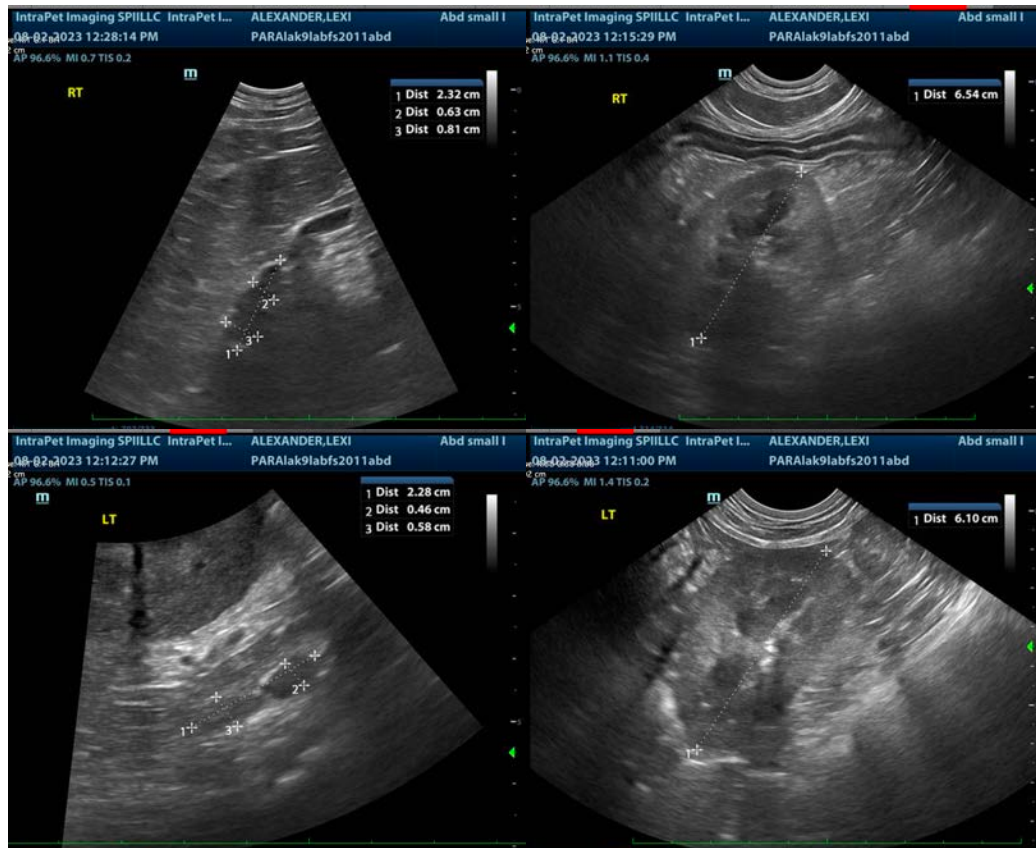
Most causes of PU/PD can be diagnosed with a comprehensive history and physical exam, a first AM urine specific gravity to see if urine concentration is possible (as most animals naturally consume less water overnight) followed by a comprehensive CBC, serum chemistry panel, electrolytes, and urinalysis.

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.

This patient's incontinence is likely a combination of spay incontinence, which is exacerbated by the underlying PU/PD. If an underlying cause for PU/PD cannot be found and/or cannot be treated (i.e., emerging chronic kidney disease, etc.), potentially DES could be considered for incontinence control, given the lack of response to previous medications.

Otherwise, consultation with a veterinary internist to start evaluating other more complicated underlying conditions could be considered.



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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