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DATE PRESENTING CLINICAL SIGNS

7/28/22 Recurrent UTIs.

PATIENT Current Medications: None listed.
Lab Results: See attached.

Maggie Baldwin Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

SPECIES

Canine

BREED

Poodle X

SEX

Spayed Female

AGE

12/1/09

WEIGHT

55 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Bay Country VH

REFERRING VET

Dr. McLean

INVOICE

39939

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.78 cm). Mucosa is hyperechoic and irregular with multiple pedunculated masses extending into the lumen of the bladder. Multiple small mineral foci, both dependent and suspended, are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface. The area surrounding the urinary bladder contains a scant amount of anechoic free fluid as well as enhanced hyperechoic fat and mesentery, as well as a reactive sublumbar lymph nodes.

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 left kidney measures 6.57 cm. The right kidney measures 7.03 cm.

Adrenal Glands

The right adrenal gland is normal in size (2.82 cm long x 0.75 cm at the cranial pole and 0.56 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (4.13 cm long x 1.53 cm at the cranial pole and 0.61 cm at the caudal pole), and shape. Overall architecture is normal, except for a hyperechoic nodule in the cranial pole that does result in some swollen capsular expansion without evident capsular escape or vascular invasion appreciated.

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). A 0.7 cm hypoechoic mid body, non-capsule disrupting nodule is present. Splenic vasculature appears normal.

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.

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 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

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 apparent lymphadenopathy noted in these images.

See urinary bladder description.

PRIMARY FINDINGS

- **Polypoid Cystitis** – Urinary bladder wall changes are most consistent with polypoid cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely given the appearance of the polyps. The changes around the urinary bladder are consistent with inflammation or focal peritonitis, possibly secondary to the polypoid cystitis, or possibly secondary to a recent cystocentesis, if applicable.
- **Hyperechoic adrenal nodule in the cranial pole of the left adrenal gland** – Differentials include primary adrenal cortical adenoma or adenocarcinoma, pheochromocytoma, myelolipoma, adrenal hyperplasia secondary to pituitary disease or metastatic disease. Ultrasound alone cannot differentiate between functional and non-functional nodules and/or between benign and malignant disease. Small nodules without other evidence of abdominal disease (to suggest metastatic disease) and/or clinical signs (to suggest adrenal disease) are most often incidental and should be monitored.
- **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.

SECONDARY FINDINGS

- **Age related kidney change**
- **Hypo to anechoic splenic nodule** – likely represents a benign lesion such as a cyst, hematoma, nodular hyperplasia, extramedullary hematopoiesis, etc., however while considered less likely, infiltrative neoplasia can mimic benign lesions, and cannot be ruled out.

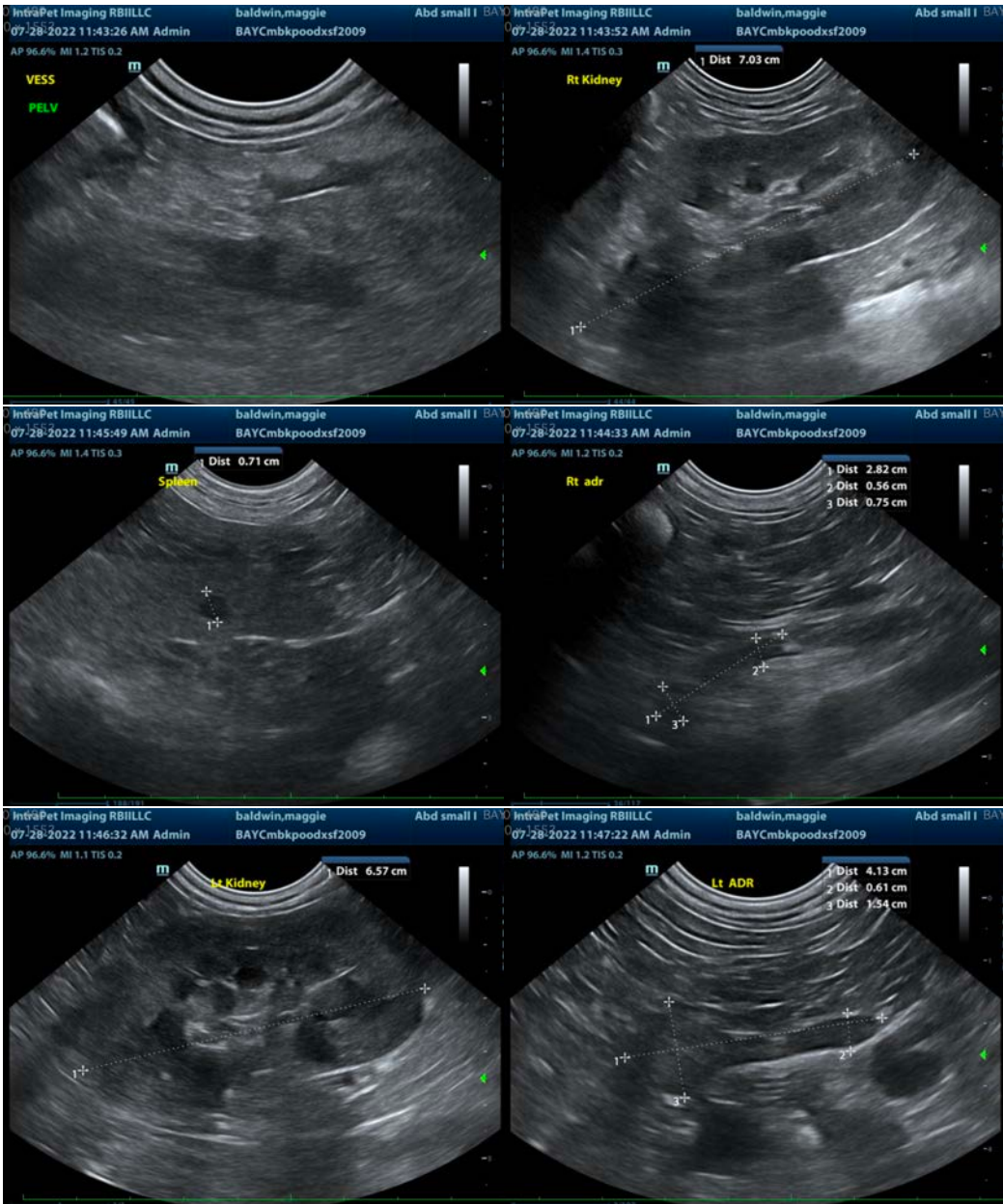
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

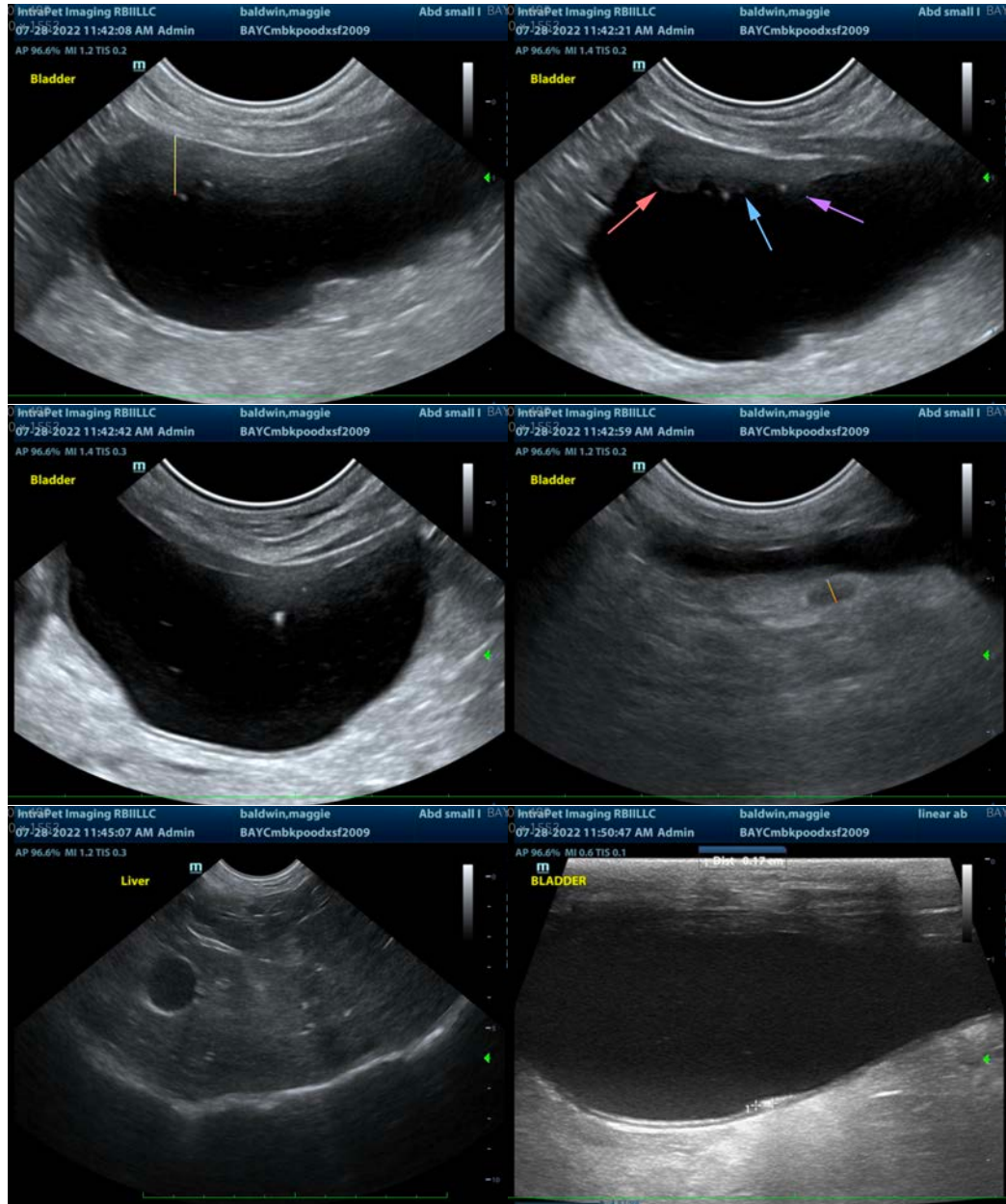
Recommendations include a urine culture (at least 1-2 weeks after being off of all antibiotics) with treatment of a urinary tract infection, if present, as a complicated urinary tract infection, characterized by a 4-6 week course of antibiotics including a recheck culture a week to 10 days into treatment, as well as a fine culture a week to 10 days after finishing treatment to ensure full clearance. Given the polypoid nature and the inflammatory changes around the bladder, concurrent anti-inflammatory therapy may also be indicated.

Given the adrenal changes and heterogeneous liver changes combined with historical liver enzyme changes, hyperadrenocorticism could be a predisposing factor for urinary tract infections in this patient. If clinical signs of hyperadrenocorticism are present, such as polyuria, polydipsia, panting, hair loss, etc., then testing is indicated in the form of a low-dose Dexamethasone suppression test. If clinical signs are not present, then recommendations include simply managing the urinary tract infections without further testing for hyperadrenocorticism at this time.

Blood pressure is recommended if not recently evaluated.

Ultimately, if clinical signs/urinary tract infections, etc. persist, cystoscopy for biopsies of the bladder wall for histopath and deep tissue culture may be necessary.





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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