

**DATE**

5/23/22

PRESENTING CLINICAL SIGNS

5/21/22: 5 days ago pet started to urinate in the house and O noted blood in the urine, no straining to urinate, but frequency of urination is increased. Eating/drinking normally. abdomen extremely tense on palpation, unable to appreciate organs, rounded appearance of the abdomen, milk production in the caudal 4 teats

PATIENT

Maple Felts

Current Medications: None.

Lab Results: 5/21/22: CBC- unremarkable. Urinalysis- (O collected sample by soaking up urine in paper towel and squeeze into a pill bottle with

SPECIES

Canine

Levothyroxine residue still in bottle) Pale Yellow; Cloudy USG- 1.010

Dip Stick findings- all values neg/norm EXCEPT: Protein- 30, pH 6.5, 3+ blood. Sediment: no cells noted, significant debris

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Andi Parkinson BS RDMS

BREED

Labrador

SEX

Female, intact

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended. The wall is normal in thickness with a slightly irregular mucosal surface. A small amount of mostly gravity dependent echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

AGE

8/16/2012

WEIGHT

62 lbs.

The left kidney is normal size (6.65 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

INTERPRETED BY

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

The right kidney is normal size (7.71 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Banfield White Marsh

Adrenal Glands

The left adrenal gland is enlarged (1.07 cm at cranial pole) (1.96 cm at caudal pole) (3.68 cm in length) with an irregular shape and a mass effect, particularly at the caudal aspect. The parenchyma is heterogeneous with cystic areas at the caudal pole. There is no obvious evidence of vascular invasion.

REFERRING VET

Dr. Racz

The right adrenal gland is slightly small in size (0.48 cm at cranial pole) (0.49 cm at caudal pole) (2.18 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

INVOICE

13403

Spleen

The spleen is normal in size (1.85 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is normal to slightly prominent in size with mostly normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen. Numerous small ill-defined hypoechoic nodules are observed throughout the organ. A 1.92 cm irregular hyperechoic to slightly heterogeneous nodule is observed on the left side, at the caudal aspect. The lesion causes slight capsular expansion. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is

thin and smooth. A small to moderate amount of aggregated echogenic mostly gravity-dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is not distended. The gastric wall and pylorus is in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The right limb of the pancreas is 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.

Other

The ovaries are subjectively normal in size (left ovary 1.77 x 1.20 cm; right ovary 1.60 x 1.13 cm) with normal shape. No obvious pathology is observed.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Left adrenal mass effect. Neoplasia (i.e., adenoma, adenocarcinoma, pheochromocytoma) is suspected with a lower possibility of a benign process (i.e., nodular hyperplasia with cystic areas).
- The urinary bladder debris could be consistent with cells, crystals and/or exfoliated material.
- The hepatic parenchymal changes are non-specific and could be secondary to a benign process (i.e., regenerative nodular hyperplasia, idiopathic vacuolar hepatopathy). However, inflammatory disease, infiltrative neoplasia or other hepatopathies cannot be completely excluded. Correlation with the patient's liver values is recommended. The left hyperechoic to heterogeneous hepatic nodule could be consistent with an emerging tumor, regenerative nodule or inflammatory focus.

Secondary Findings:

- Chronic age-related renal and pancreatic changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A chemistry panel is recommended, if not already performed.
- Given the patient's clinical signs, a urine culture and sensitivity (collected via cystocentesis) is recommended. While awaiting test results, consider initiation of broad-spectrum antibiotic therapy as empirical treatment for a urinary tract infection.
- Regarding the left adrenal mass effect, consider the following:
 - Thoracic radiographs to assess for pulmonary metastatic disease.

- Baseline blood pressure measurement to assess for systemic hypertension.
- Further testing for a functional tumor (i.e., low dose Dexamethasone suppression test and urine/blood catecholamine levels (Marshfield Laboratory)).
- If the patient's liver values are elevated, consider hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy). Surgical biopsies are preferred in that they are more likely to yield a definitive diagnosis. If surgery is pursued, aerobic and anaerobic bile cultures as well as acquisition of additional hepatic tissue samples for potential copper quantitation is recommended and an ovariectomy should 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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)
 Andrea.nicastro@sonopath.com