

DATE PRESENTING CLINICAL SIGNS

1/28/2022 History: Hematuria 1/13/21. On Clavamox 2 weeks. Blood in urine resolved, then came back. Recent vomiting (2 days)-after starting new canned food.

PATIENT

Kip Thompson

Current Medications: Clavamox 125mg -1 q12 hours, 1/13-1/26.
Lab Results: BUN 56. Creatinine 4.1, alk phos 357, Amylase 1603, lipase 2011.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

SPECIES

Canine

Imaging Performed By: Andi Parkinson, RDMS.

BREED

Jack Russell Terrier

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall in the region of the apex is mildly to moderately thickened (up to 0.47 cm), and irregular. A moderate to large amount of aggregated echogenic suspended debris is observed within the lumen. No cystic calculi are observed. The region of the trigone the visible portion of the proximal urethra are normal.

SEX

Male Neutered

AGE

1-21-2005

The prostate is normal in size (1.19 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

WEIGHT

18.18 Lbs.

The left kidney presented normal size (5.05 cm in length); with an irregular shape. The cortex is diffusely and variably thickened and heterogenous in appearance. There is poor corticomedullary distinction. A 0.91 cm hypoechoic to heterogenous, (bordering on nodular in appearance) nodule is observed in the cortex at the caudal pole. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.29 cm in the longitudinal plane). There is no evidence of hydroureter. Trace subcapsular fluid is observed at the caudal aspect. Surrounding mesentery is hyperechoic. A scant amount of retroperitoneal fluid is also present.

INTERPRETED BY

Andrea Nicastro,
DMV, Diplomate
DACVIM (Small Animal
Internal Medicine)

The right kidney is normal size (4.33 cm in length); with a slightly irregular shape. The cortex is variably thickened and heterogenous in appearance. There is a moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. There is no evidence of hydroureter. A scant amount of subcapsular fluid is observed at the caudal pole. The mesentery at the caudal aspect is hyperechoic.

HOSPITAL NAME

Timonium Animal
Hospital

Adrenal Glands

The left adrenal gland is enlarged (0.87 cm at cranial pole) (1.58 cm at caudal pole) (2.81 cm in length); with an irregular shape. A 1.79 x 1.50 cm irregular hyperechoic to heterogenous cavitated nodule is observed at the mid- to caudal aspect. In addition, a 0.65 x 0.63 cm hyperechoic nodule is observed at the cranial pole. Surrounding vasculature appears normal.

REFERRING VET

Dr. Kauder

The right adrenal gland is mildly enlarged (0.76 cm at cranial pole) (0.75 cm at caudal pole) (2.27 cm in length); with a slightly irregular shape. A 1.23 x 0.60 cm irregular hyperechoic nodule is observed in the cranial- to mid-aspect. Glandular echogenicity and detail at the caudal aspect are normal. Surrounding vasculature appears normal.

INVOICE

10235

Spleen

The spleen is subjectively normal in size with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen with heterogenous areas. A 0.91 cm cystic area is observed deep-left to mid-liver. Hepatic vasculature and intrahepatic 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 moderate amount of aggregated echogenic suspended sludge and debris is observed within the lumen. The cystic and common bile ducts are normal.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal 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 or overt infiltrative disease is noted.

Pancreas

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic 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

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

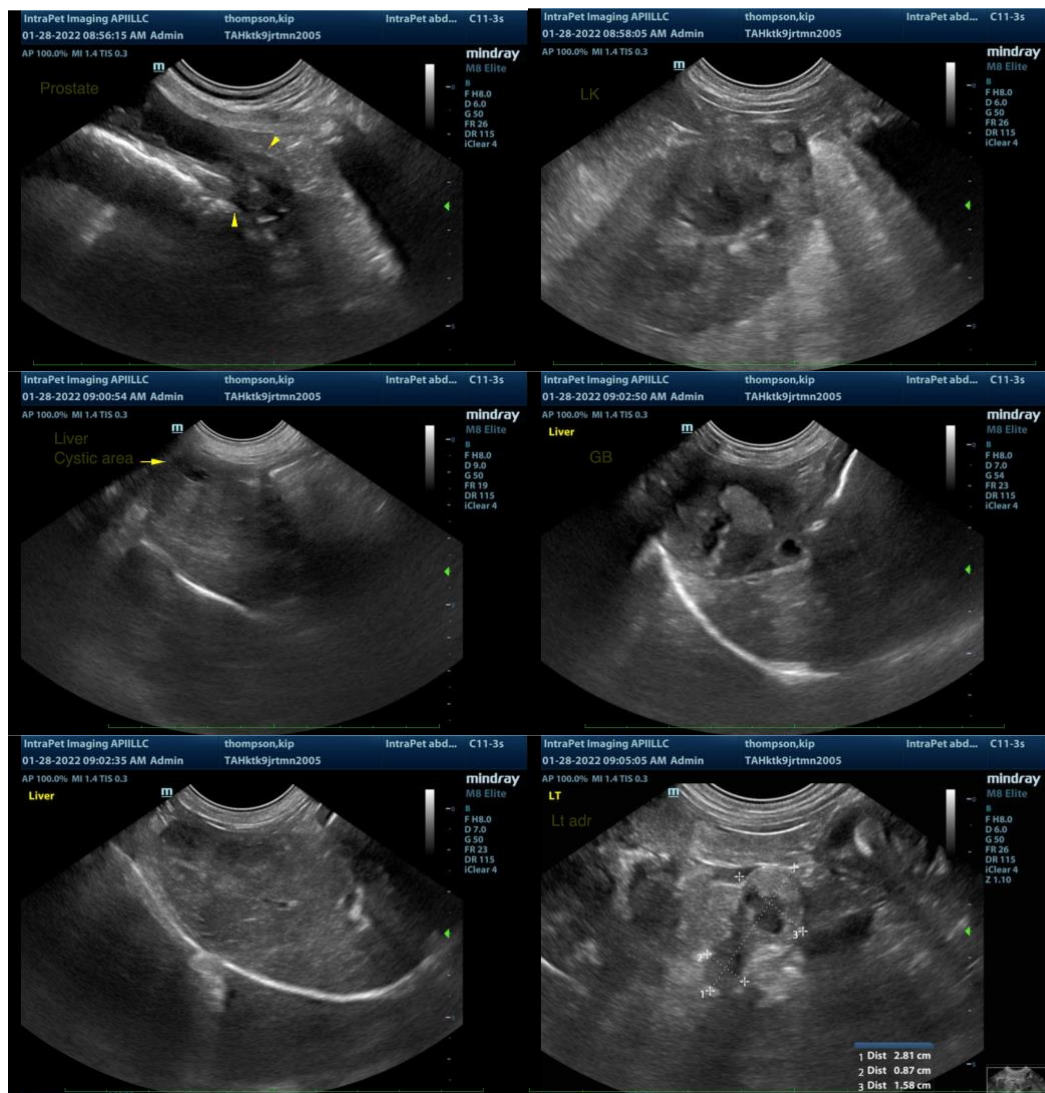
- The bilateral renal changes are concerning for infiltrative neoplasia (i.e., adenocarcinoma, lymphoma). However, severe but benign degenerative changes cannot be completely excluded. Retroperitonitis is present, likely secondary to renal pathology.
- The urinary bladder debris could be consistent with cells, crystals and/or exfoliated material.

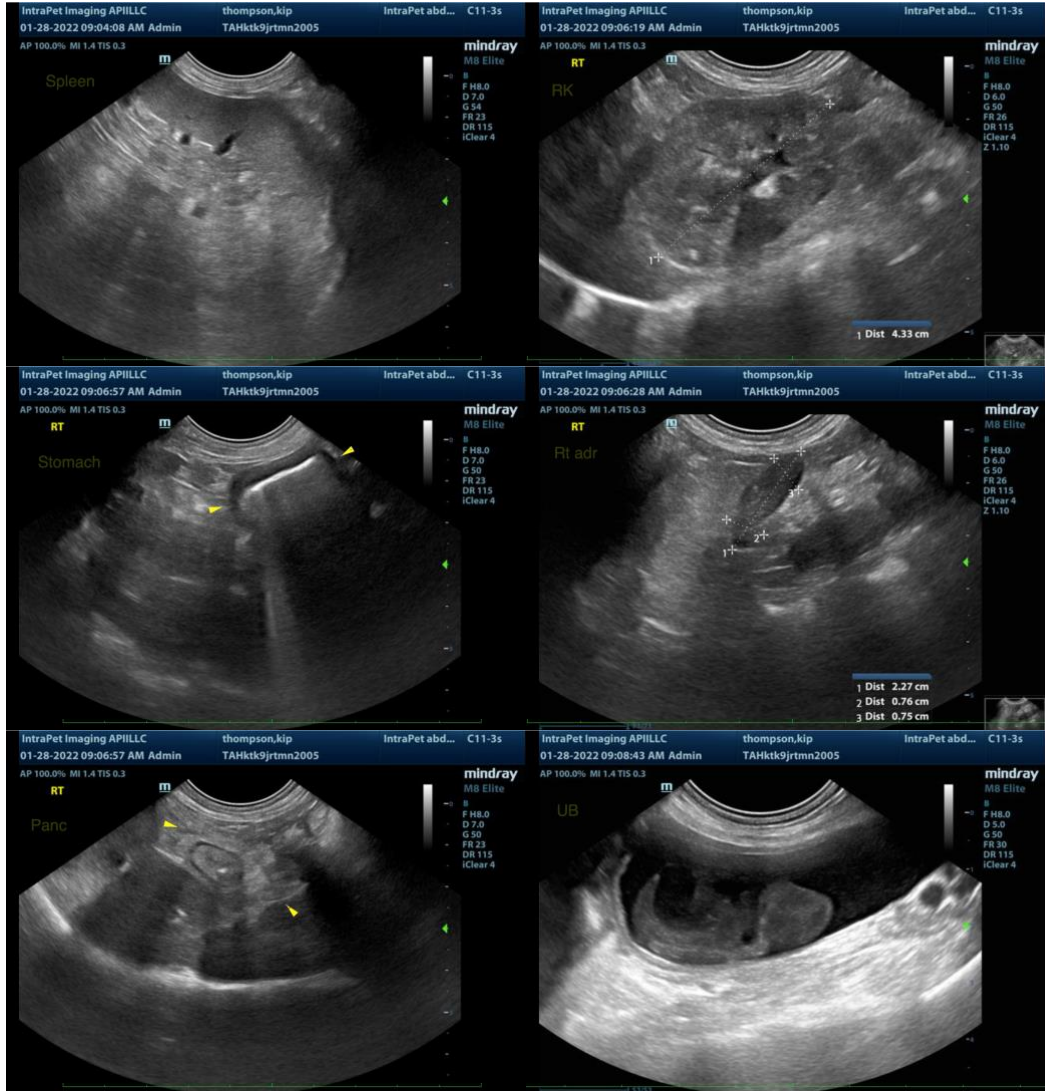
Secondary Findings

- The bilateral adrenal changes could be consistent with nodular hyperplasia. Alternatively, emerging neoplasia is possible, particularly in the larger left adrenal nodule.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely. However, correlation with clinical findings is recommended.
- The gall bladder sludge could be consistent with a developing mucocele, cholestasis, or less likely, fasting
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- Consider a fine-needle aspirate of the left renal nodule if clotting status and blood pressure are normal.
- Other diagnostic considerations include a urine culture and sensitivity, UPC (if proteinuria is present), and blood pressure measurement.
- Supportive care for renal failure, including IV fluid diuresis, gastric protectants, antiemetics and empirical antibiotic therapy (while awaiting urine culture and sensitivity results) is recommended.





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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