

**DATE PRESENTING CLINICAL SIGNS**

9/17/21 History: Increased thirst; bloated abdomen; hair loss.

PATIENT Current Medications: No current medications.

Tank Henson Lab Results: High WBC 31.5, High Globulin 5.3, Low Albumin 2.5.

SPECIES Radiographs: Not provided by the veterinarian.

Canine Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

BREED Sedation: Not needed.

Mix Stat Report: Not requested.

SEX ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Neutered male *Urinary System*

AGE The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. A moderate amount of echogenic debris is observed within the lumen, some of which is gravity-dependent and some of which is suspended. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

10/12

WEIGHT The prostate is normal in size (0.84 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

41.8 lbs

INTERPRETED BY

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The left kidney is normal size (7.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Honeygo AH

The right kidney is normal size (7.35 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

REFERRING VET

Dr. Wright

Adrenal Glands

The left adrenal gland is borderline enlarged (0.82 cm at cranial pole) (0.84 cm at caudal pole) (2.86 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

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The right adrenal gland is mildly enlarged (0.91 cm at cranial pole) (0.89 cm at caudal pole) (3.11 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.

Spleen

The spleen is normal to slightly prominent in size (2.11 cm in width at the level of the hilus) with normal, curvilinear peripheral contours. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder is distended. The wall is normal in thickness. A moderate to large amount of aggregated, echogenic, suspended sludge in a partially stellate pattern 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 is normal in thickness with a normal layering pattern. In the first few centimeters of the proximal duodenum, the mucosal layer is hyperechoic, and the wall is prominent (up to 0.55 cm). The remaining small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. The small intestinal lumen is not dilated. In a few segments, a small amount of shadowing material is observed within the lumen but does not appear obstructive. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas

The left and right limbs 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

There is no evidence of free fluid. Two to three prominent mesenteric lymph nodes are visualized, the largest measuring 1.20 cm in length.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gall bladder changes are consistent with an emerging mucocele.
- The hepatic changes could be consistent with vacuolar hepatopathy, age-related remodeling, or nodular hyperplasia. Inflammatory disease and infiltrative neoplasia are considered less likely.
- Mild bilateral adrenomegaly.

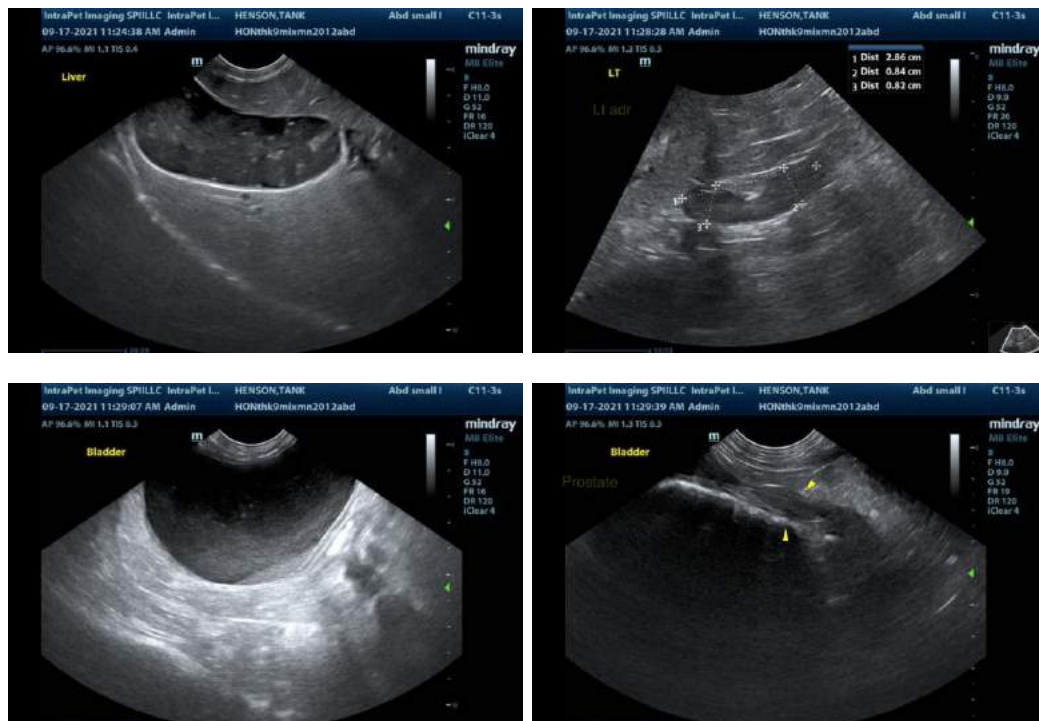
Secondary Findings:

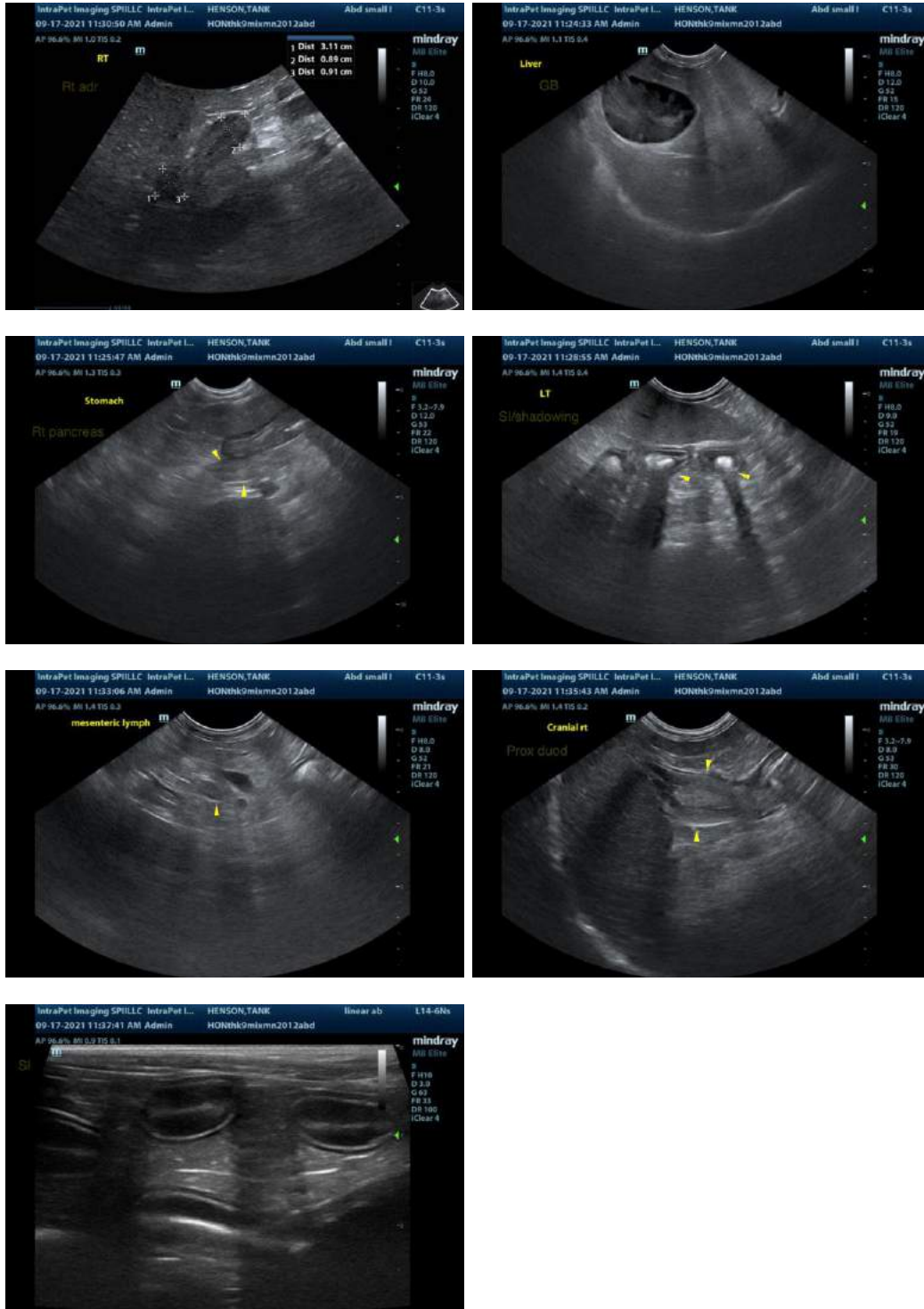
- Bilateral, age-related renal changes.
- Urinary bladder debris.
- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The proximal duodenal changes are most consistent with an inflammatory process with a lower possibility of emerging neoplasia.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

**An obvious cause for the patient's clinical signs is not identified in this study. Considerations include endocrinopathy, hepatic dysfunction, pyelonephritis, and other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. The following diagnostics can be considered:
 - a. Urine culture and sensitivity.
 - b. Pre- and post-prandial serum bile acids
 - c. Cushing's testing (i.e., low-dose dexamethasone suppression test or ACTH stimulation test). However, it should be noted that Cushing's disease is rare in dogs with a normal alkaline phosphatase.
 - d. Serum protein electrophoresis.
 - e. Three-view thoracic radiographs are recommended to assess for occult neoplasia.
 - f. +/- fine needle aspirate of the liver (depending on serum bile acid results)
 - g. A T4/Free T4 by Equilibrium Dialysis is also recommended if not already performed.
 - h. Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully-formed mucocele.





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.

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