

**DATE PRESENTING CLINICAL SIGNS**

3/1/22

Suspect early renal disease, PU/PD. Hx of GI sensitivity (vomiting) with chicken or rice based diet per o.

PATIENT

Oliver Johnson

Current Medications: Glucosamine.

Lab Results: SDMA 15, Crea 1.4, USG 1.012.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

SPECIES

Canine

BREED

Hound Mix

SEX

Male, neutered

AGE

11/27/2009

WEIGHT

47.1 lbs.

INTERPRETED BY

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Diplomate ACVIM
(*Small Animal Internal
Medicine*)

HOSPITAL NAME

Churchville VC

REFERRING VET

Dr. Uhland

INVOICE

13077

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth.

The bladder lumen is moderately distended with anechoic urine. 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.

The prostate is normal in size (1.08 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (5.61 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (5.69 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.59 cm at cranial pole) (0.69 cm at caudal pole) (2.49 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.

The right adrenal gland is enlarged at the cranial pole and normal in size at the caudal pole (1.40 cm at cranial pole) (0.69 cm at caudal pole) (2.64 cm in length). A 0.82 x 0.64 cm hyperechoic to slightly heterogeneous nodule is observed at the cranial aspect. The glandular echogenicity and detail at the caudal aspect are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.51 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

A 4.85 x 2.99 cm isoechoic well circumscribed oval shaped mass is arising from the right side. In the remainder of the liver, the margins are curvilinear and the parenchyma is homogeneous. 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 moderate amount of echogenic to mineralized debris is observed within the lumen, most of which is gravity-dependent and some of which is suspended. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is mildly distended with ingesta. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- Right hepatic mass. Neoplasia (i.e., adenoma, adenocarcinoma, round cell tumor) is considered probable. However, a benign process (i.e., large regenerative nodule) cannot be completely excluded.
- Mild age-related non-specific renal changes.

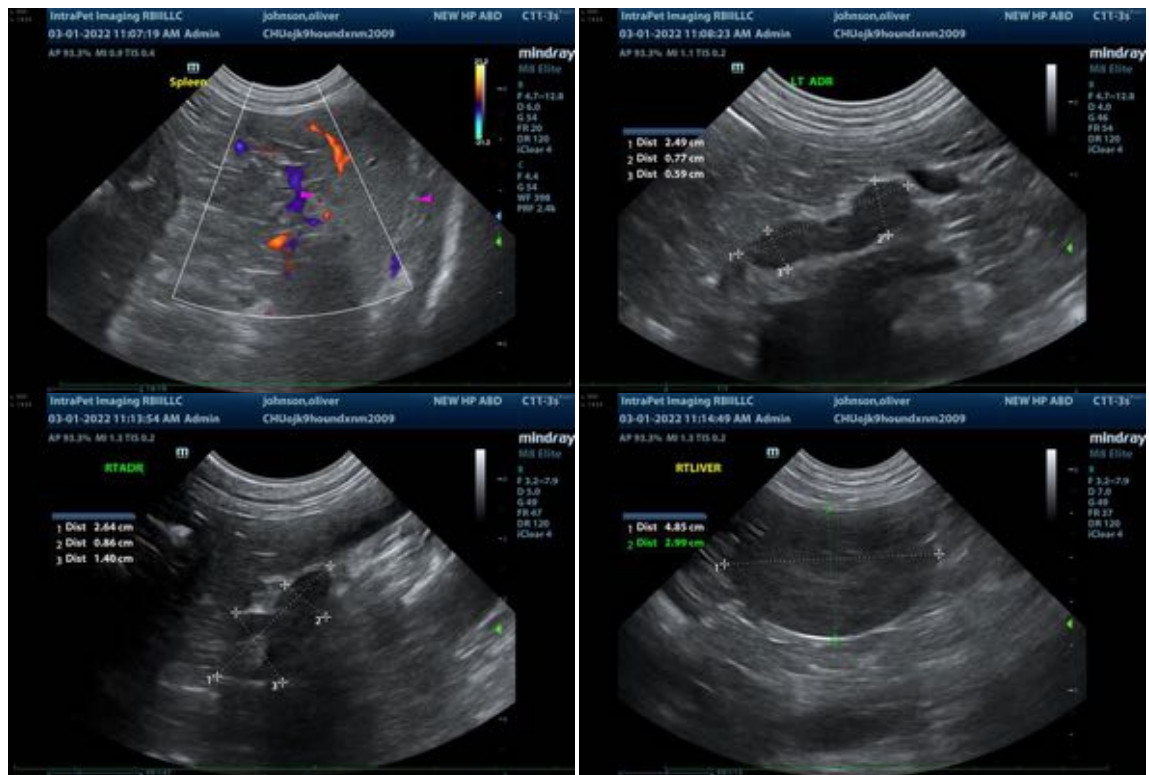
Secondary Findings:

- The right adrenal nodule trends toward the benign (i.e., nodular hyperplasia). However, an emerging tumor cannot be excluded.
- Gallbladder debris- incidental.
- Age-related pancreatic remodeling +/- fibrosis. Mild pancreatitis may also be present, particularly if the patient exhibits a positive Murphy's sign.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the hepatic mass, consider the following:
 1. Chest X-rays (three-view) to assess for pulmonary metastatic disease.
 2. Fine needle aspirate of the mass if accessible and if clotting status is appropriate. If cytology results are inconclusive or if the lesion is not accessible, consider surgical removal with submission for histopathology.
- Regarding the history of GI sensitivity, consider the following:
 1. GI panel (send to Texas A&M).
 2. A fecal evaluation for ova/Giardia
 3. 6-week limited antigen diet trial

4. A resting cortisol level could be considered to screen for hypoadrenocorticism. However, this disease is considered less likely given the patient's age and adrenal appearance.
 5. Depending on the results of the above diagnostics/therapeutics, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis. If the liver mass is removed surgically, consider obtaining GI biopsies at that time.
- Regarding the renal disease, the following diagnostics/therapeutics are recommended:
 1. Urine culture and sensitivity.
 2. UPC (if proteinuria is present).
 3. Baseline blood pressure measurement
 4. Nutritional consult (i.e., University of Tennessee; <https://vetmed.tennessee.edu/vmc/smallanimalhospital/small-animal-nutrition/>) to determine the best diet with regard to the patient's renal and GI issues.





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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