

**DATE PRESENTING CLINICAL SIGNS**

10/26/21

History: tense abdomen/ groaning when readjusts/ laying down. PU/PD.

PATIENT

Cookie Wallace

Current Medications: on Hill's k/d because another pet is on it.

Lab Results: urine SG 1.015. Normal LDDST 6/10/21. AlkPhos 2109/ stress leukogram/calcium 11.4.

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: not needed

Stat Report: not requested

SPECIES

Canine

BREED

West Highland Terrier

SEX

Female, spayed

AGE

7/27/2009

WEIGHT

20 lbs.

INTERPRETED BY

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Diplomate ACVIM
(Small Animal Internal
Medicine)

HOSPITAL NAME

Honeygo AH

REFERRING VET

Dr. Wright

INVOICE

12430

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 left kidney is normal in size (4.57 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few small cortical cysts are seen. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (5.01 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. 1-2 small cortical cysts are seen. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline enlarged (0.61 cm at cranial pole) (0.69 cm at caudal pole) (1.93 cm in length) with a slightly irregular shape. 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 normal size (0.97 cm at cranial pole) (0.49 cm at caudal pole) (2.40 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 in size (0.80 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Several ill-defined hyperechoic nodules are observed throughout the organ. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely heterogeneous in appearance. Intrahepatic biliary stones are observed throughout the organ. A 4.76 x 4.27 cm heterogeneous cavitated mass is observed deep on the right side adjacent to the diaphragm. In addition, a 4.51 x 2.99 cm heterogeneous cavitated mass is observed on the left. Hepatic vasculature is 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 in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

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 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 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

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:

- Cavitated hepatic masses. Neoplasia (i.e., adenocarcinoma, hemangiosarcoma, round cell tumor) is considered likely with a lower possibility of benign pathology (i.e., inflammatory process). The diffuse hepatic parenchymal changes are non-specific and could be associated with benign age-related pathology or metastatic disease. Intrahepatic biliary stones, likely incidental.
- Gallbladder changes consistent with an emerging mucocele.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Borderline left adrenomegaly.
- Bilateral age-related renal changes with dystrophic mineralization.
- The hyperechoic lesions adjacent to the splenic vessels are most consistent with myelolipomas. Although a neoplastic process within the spleen cannot be excluded, it is considered unlikely in this patient.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- If an aggressive approach is desired, consider referral to a board-certified veterinary surgeon to discuss hepatic mass removals or debulking. An abdominal CT scan would be useful in pre-surgical planning. Ultrasound-guided fine needle aspirates of the masses can be considered (if clotting status is appropriate). However, it should be noted that primary hepatic tumors are difficult to diagnose

cytologically. Given that there are likely at least 2 hepatic masses, the prognosis for this patient is considered guarded.





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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