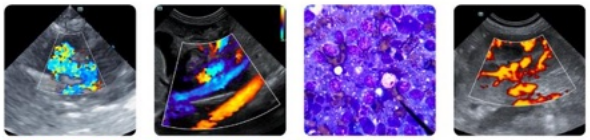


PATIENT

Moose Johnston

SPECIES

Canine

BREED

Mixed breed

SEX

Male, neutered

AGE

9 Yrs.

WEIGHT

36.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan

HOSPITAL NAME

Rhode Island Animal Medical Center

REFERRING VET

Dr. Ribeiro

INVOICE

13344

DATE

11/17/25

PRESENTING CLINICAL SIGNS

History: Senior. Obese - r/o overfeeding v metabolic v endocrine v neoplasia v other. Hx of MCT. Bladder stones - noted on radiographs today. Elevated liver values - ALT/ALP r/o infection, inflammation, hepatic dz, endocrine, neoplasia, other. Isosthenuria - r/o early renal vs. PU/PD vs. other. Plan: Recommend abdominal ultrasound to further investigate early signs of CKD vs, other causes of isosthenuria. Abnormal PE/Chem/CBC/UA Results: Retic 121.9 (h), alt 246 (h), alkp 316 (h) UA - urine via free catch USG 1.018, H 6.5, 1+ protein, 2-3 squam epi

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. Small cystic calculi are observed within the lumen. The remaining luminal contents are anechoic. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.88 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (5.16 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. At least one small, non-obstructive mineralized focus is visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

The right kidney is normal in size (5.40 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A few small non-obstructive mineralized foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (0.47 cm at cranial pole) (0.57 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

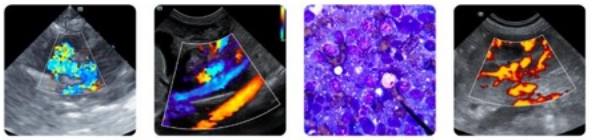
The right adrenal gland is normal in size (0.57 cm at cranial pole) (0.47 cm at caudal pole) with a relatively normal shape. A 0.67 x 0.61 cm hyperechoic to heterogeneous nodule is observed at the cranial pole. The glandular echogenicity and detail at the caudal pole are unremarkable. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.50 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. 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 and diffusely mottled and heterogeneous in appearance with numerous varying sized heterogeneous nodules/macronodules throughout the organ, one of the largest measuring 2.2 cm in its longest dimension. Vascular and biliary tracts are of normal volume with no evidence of congestion.



PATIENT

Moose Johnston

SPECIES

Canine

BREED

Mixed breed

SEX

Male, neutered

AGE

9 Yrs.

WEIGHT

36.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan

HOSPITAL NAME

Rhode Island Animal Medical Center

REFERRING VET

Dr. Ribeiro

INVOICE

13344

DATE

11/17/25

The gall bladder lumen is distended. The wall is thin and smooth. A large amount of aggregated/organized 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 minimally fluid 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 is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

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 heterogeneous in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Lymph nodes

The abdominal lymph nodes are normal/not visible.

Free Abdomen

There is no obvious evidence of free fluid.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gallbladder changes are consistent with a developing to fully formed mucocele.
- The diffuse hepatic nodules/macronodules could be consistent with infiltrative neoplasia (i.e., round cell tumor, other) or may represent a benign process (i.e., regenerative nodular hyperplasia, inflammatory disease, hepatotoxicosis or other hepatopathy).
- Small cystic calculi

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.
- Bilateral, nonspecific age-related renal changes with non-obstructive nephrocalcinosis and trace left pyelectasia.
- The right adrenal nodule could be consistent with focal nodular hyperplasia, adenoma or less likely emerging adenocarcinoma, pheochromocytoma, other.
- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. Consider fine needle aspiration of the liver (assuming normal clotting status). A 25-gauge needle should be used. If cytology results are inconclusive, liver biopsies with aerobic and anaerobic bile

PATIENT

Moose Johnston

SPECIES

Canine

BREED

Mixed breed

SEX

Male, neutered

AGE

9 Yrs.

WEIGHT

36.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan

HOSPITAL NAME

Rhode Island Animal Medical Center

REFERRING VET

Dr. Ribeiro

INVOICE

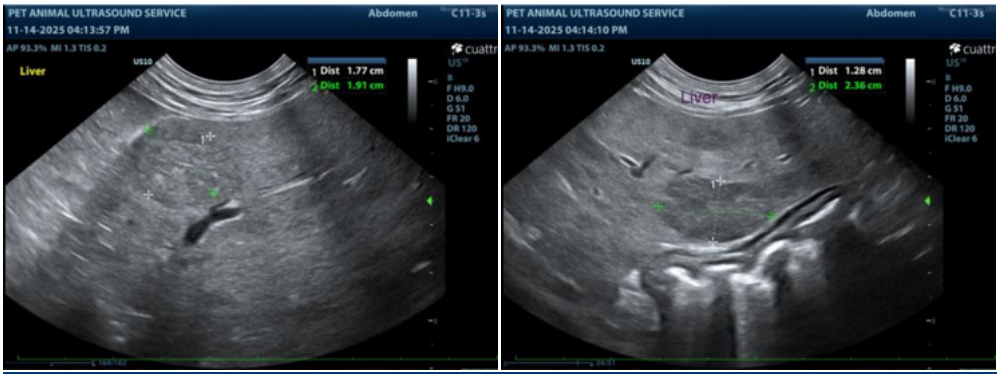
13344

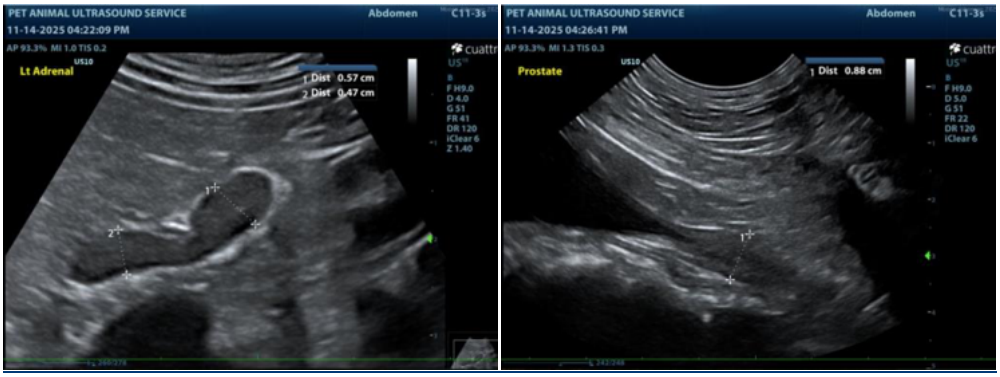
DATE

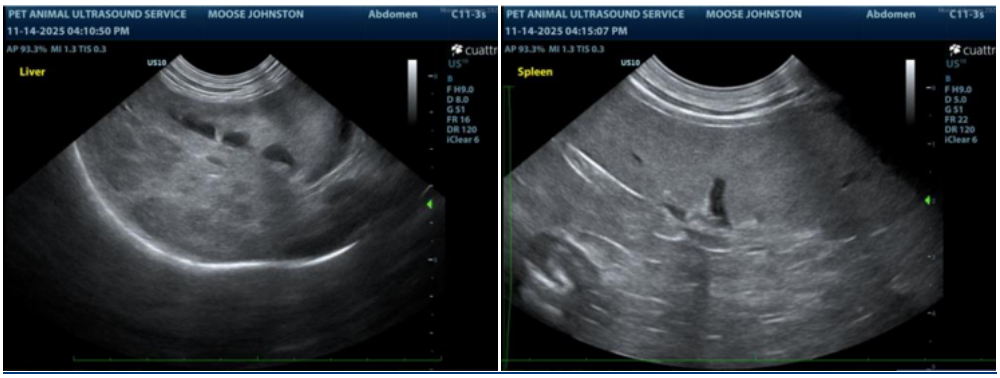
11/17/25

cultures and hepatic copper quantitation should be considered along with a prophylactic cholecystectomy. If surgery is not pursued, initiation of Ursodiol therapy is recommended for the gallbladder changes. Serial sonographic monitoring (i.e., every 4-6 weeks) should be performed to assess progression of the mucocele.

2. Three-view thoracic radiographs are also recommended to assess cardiopulmonary status.







SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™

SonoPath.com info@sonopath.com 1.800.838.4268

Clinical Sonography & Telecytology
Educational Teleconsultation Services™

PATIENT

Moose Johnston

SPECIES

Canine

BREED

Mixed breed

SEX

Male, neutered

AGE

9 Yrs.

WEIGHT

36.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan

HOSPITAL NAME

Rhode Island Animal Medical Center

REFERRING VET

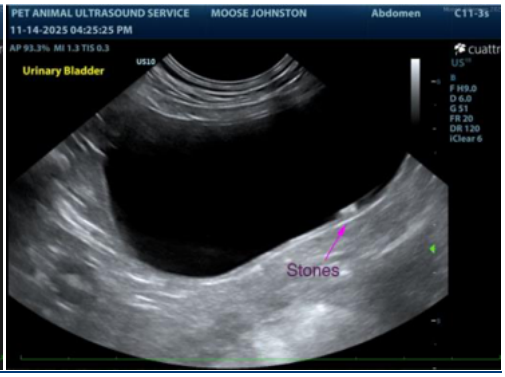
Dr. Ribeiro

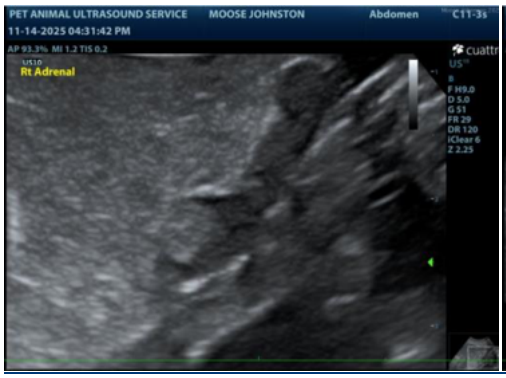
INVOICE

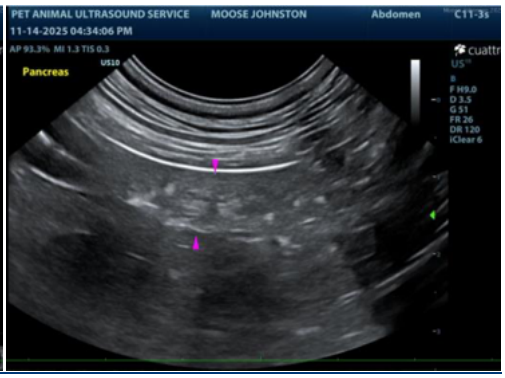
13344

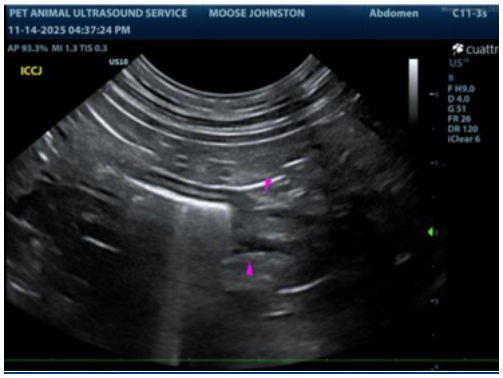
DATE

11/17/25









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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com