

**DATE PRESENTING CLINICAL SIGNS**

8/23/21

History: Kidney disease, Pancreatitis, Chronic Diarrhea. Also has chronic cough that Dr. Chrest is treating.

**PATIENT**

Bear Hammerman

Current Medications: Epakatin 1 scoop twice a day, Flagyl 250 mg 1 SID, Amoxicillin 250 mg 1 capsule daily since 8.10.21. Also on Royal Canin GI low fat diet.

**SPECIES**

Canine

Lab Results: Creatinine is 4.1, BUN is 97, hyperphosphatemic. Liver enzymes are mildly elevated with ALP at 189, ALT is 123, Spec cPL is elevated, CBC is unremarkable except for thrombocytosis.

Radiographs: Not provided by the veterinarian.

**BREED**

Pomeranian Mix

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: not needed

**SEX**

Male Neutered

Stat Report: not requested

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

1/1/09

**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.

**WEIGHT**

17.4 lbs.

The prostate is normal in size (0.90 cm in width) with a normal shape and smooth peripheral contours. The parenchyma is homogenous. No distinct focal lesions are observed. A few foci of mineralization are observed within the prostatic urethra. However, the prostatic urethra lumen is not overtly dilated.

**INTERPRETED BY**

Andrea Nicastrò, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
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The left kidney is normal size (5.17 cm in length) with a normal shape and smooth peripheral margins. The cortex is diffusely thickened and there is moderate loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortical parenchyma. Several, varying sized cortical cysts are also present, some of which are septated. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is seen (0.36 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

**HOSPITAL NAME**

Animal Medical Center  
of Dulaney Valley

The right kidney is normal size (4.52 cm in length) with a normal shape and smooth peripheral margins. The cortex is diffusely thickened and there is moderate loss of corticomedullary distinction. Pinpoint hyperechoic foci are observed within the cortical parenchyma. Several, varying sized cortical cysts, some of which are septated, are also present. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is seen (0.15 cm in the longitudinal plane). There is no evidence of infarcts or hydronephrosis. Renal vasculature is normal.

**REFERRING VET**

Dr. Chrest

**Adrenal Glands****INVOICE**

11690kk

The left adrenal gland is mildly enlarged (0.61 cm at cranial pole) (0.71 cm at caudal pole) (1.91 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 mildly enlarged (0.73 cm at cranial pole) (0.83 cm at caudal pole) (2.08 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 subjectively normal in size (1.07 cm in width at the level of the hilus) with normal curvilinear peripheral contours. The parenchyma is subtly mottled in appearance with a few ill-defined, hypoechoic areas. At least one small myelolipoma is observed at the hilus. Splenic vasculature is normal with no evidence of thrombosis.

### *Liver*

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature 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 small to moderate amount of echogenic 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 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 is normal to borderline thickened (up to 0.43 cm) with a normal layering pattern. There is evidence of mucosal speckling and occasional mucosal fogging in some segments. Discreet masses are not identified. The colonic wall is normal. The lumen of the descending colon contains soft shadowing fecal material. There is no evidence of obstruction.

### *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*

Hyperechoic mesentery is observed adjacent to some bowel loops in the mid-abdominal cavity. No free fluid is observed. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a lower possibility of emerging neoplasia. Regional peritonitis is observed in some areas, likely secondary to bowel pathology.
- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with dystrophic mineralization, cortical cysts, and pyelectasia.

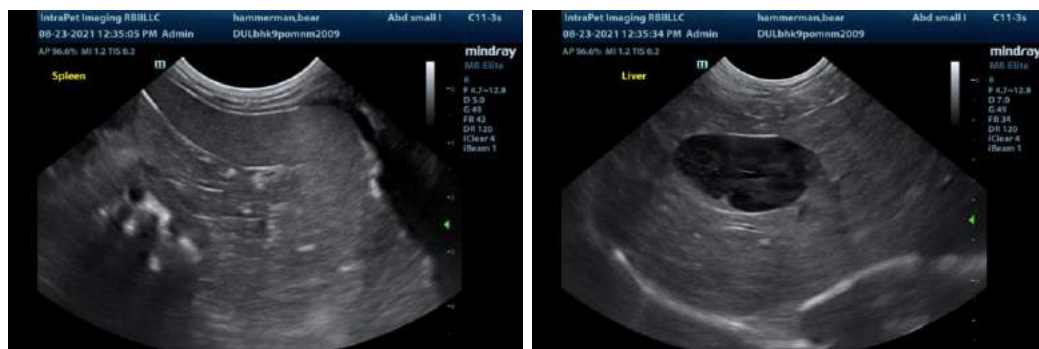
### **Secondary Findings:**

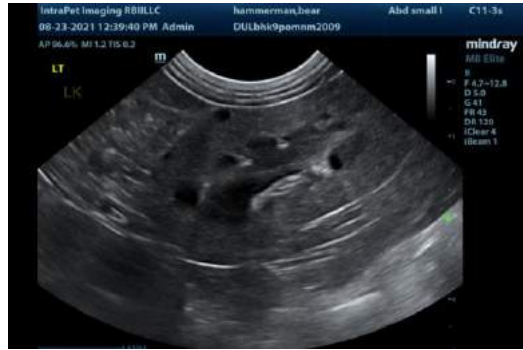
- Mild, bilateral adrenomegaly.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

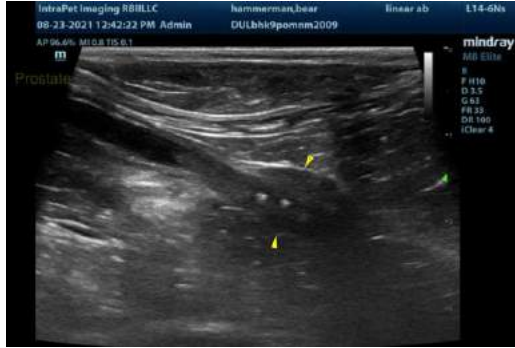
- Gall bladder debris – incidental.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Prostatic urethra mineralization, non-obstructive.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

1. Regarding the renal disease, consider the following:
  - a. Urine culture and sensitivity.
  - b. UPC (if proteinuria is present).
  - c. Baseline blood pressure measurement.
2. Regarding the chronic diarrhea, consider the following:
  - a. A malabsorption panel including serum cobalamin, folate, PLI and TLI.
  - b. A fecal evaluation for ova/Giardia
  - c. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
  - d. A 6-week limited antigen diet trial to assess for food allergies
  - e. Ultimately, endoscopic, or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis.
3. Three-view thoracic radiographs are recommended prior to any anesthetic event.







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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