


**PATIENT PRESENTING CLINICAL SIGNS**

Peanut Hays History: Patient with previous history of splenectomy, presents for intermittent diarrhea, history of PLN. Current meds: Carprofen, Galliprant, Denamarin, and fluoxetine.

**SPECIES** Abnormal PE/Chem/CBC/UA Results; ALT 218, Alk. Phos. 326.

Canine **ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED** The urinary bladder wall is 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 1-2 cm, are normal.

Beagle Mix

**SEX** The left kidney is normal in size (5.72 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Spayed Female

**AGE** The right kidney is normal in size (4.34 cm in length) with a normal shape, architecture and 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.

12 years

**WEIGHT** **Adrenal Glands**  
 The left adrenal gland is normal in size (0.64 cm at cranial pole) (0.57 cm at caudal pole) (2.33 cm in length) 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.

40.6 lbs

**INTERPRETED BY**

Andrea Nicastro, DVM, Diplomate ACVIM (Small Animal Internal Medicine)  
 The right adrenal gland is in normal size (0.82 cm at cranial pole) (0.62 cm at caudal pole) (1.73 cm in length) 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.

**IMAGING PERFORMED BY**
**Spleen**

Previously splenectomized. The region of the splenic fossa is unremarkable.

Kelly Vazquez

**Liver**
**HOSPITAL NAME**

The liver is prominent in size with slightly irregular peripheral contours. The parenchyma is isoechoic relative to the right renal cortex and mildly heterogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

Animal General Hudson

**REFERRING VET**

The gall bladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

Dr. William Freedman

**Gastrointestinal**
**INVOICE**

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

12024

**DATE**

1.12.23

ileocecolic junction and colonic wall are normal. The colonic lumen contains shadowing fecal material. There is no evidence of an obstructive pattern.

#### ***Pancreas***

The pancreas is normal in size with normal peripheral contours. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. 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**

- Nonspecific diffuse hepatopathy. Differentials include inflammatory disease (chronic hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), Leptospirosis, reactive hepatopathy, other hepatopathy, +/- concurrent age-related change (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy).
- Bilateral nephropathy

\*An obvious cause for the patient's diarrhea is not definitively identified in this study. Considerations include infectious/parasitic disease, food allergy, inflammatory bowel disease, underlying metabolic issue, other.

### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Regarding the diarrhea, consider the following:
  1. Fecal evaluation for ova and Giardia (if not already performed)
  2. Prophylactic deworming with Fenbendazole
  3. Initiation of a probiotic and fiber supplement
  4. Hypoallergenic hydrolyzed protein diet trial
  5. Resting cortisol level to screen for hypoadrenocorticism
  6. +/- GI biopsies
- Regarding the elevated liver enzymes, consider the following:
  1. Pre-and postprandial serum bile acids
  2. Leptospirosis testing (i.e., blood and urine PCR, serology), particularly if the liver enzyme elevations are acute in nature.
  3. Hepatic tissue sampling (i.e., fine-needle aspirate or biopsies (i.e., laparoscopic, or surgical). If hepatic tissue sampling is not performed at this time, consider initiation of a hepatic antioxidant (i.e., Denamarin) +/- a course of antibiotics (as empirical treatment for bacterial cholangiohepatitis). If no improvement in the liver values is seen within 7-10 days of initiating therapy, antibiotics should be discontinued, and further testing considered.



**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.

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