

**DATE PRESENTING CLINICAL SIGNS**

10/8/21 Progressive elevation in ALT with elevated bile acids. Patient clinically doing well. Significant dental disease.

**PATIENT** Current Medications: Clindamycin 7 mg/kg po bid, started 10/1/21

Jin Downes Lab Results: ALT elevated 260, bile acids, pre - elevated 27.4 umol/L, post - elevated - 49.5 umol/L. CBC and remainder of chemistry penal wnl, T4 wnl

**SPECIES** Date of Previous IntraPet Ultrasound: No previous.

Canine Sedation: Sedation not required.

**BREED** Stat Report: Stat report not requested by DVM.

Pekingese

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**  
*Urinary System*

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

**AGE**

2010

The prostate is normal in size (0.56 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

**WEIGHT**

12.3 lbs.

The left kidney is normal size (3.84 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. Several nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

**INTERPRETED BY**

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

The right kidney is normal size (3.44 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. Several nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

**HOSPITAL NAME**

Churchill Veterinary  
Clinic

*Adrenal Glands*

The left adrenal gland is normal size (0.54 cm at cranial pole) (0.43 cm at caudal pole) (1.51 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.

**REFERRING VET**

Dr. Uhland

The right adrenal gland is normal size (0.53 cm at cranial pole) (0.55 cm at caudal pole) (1.50 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.

**INVOICE**

11983kk

*Spleen*

The spleen is normal in size (0.83 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*

The liver is subjectively small in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and diffusely homogeneous in appearance. No focal lesions are observed.

hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1. The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. 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 region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional 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:**

- Mild microhepatica. This in conjunction with the clinical history could suggest a chronic hepatopathy (i.e., microvascular dysplasia, chronic inflammatory disease, low-grade fibrosis, other). Given the normal portal vein to caudal vena cava ratio, a congenital extrahepatic portosystemic shunt is considered unlikely.

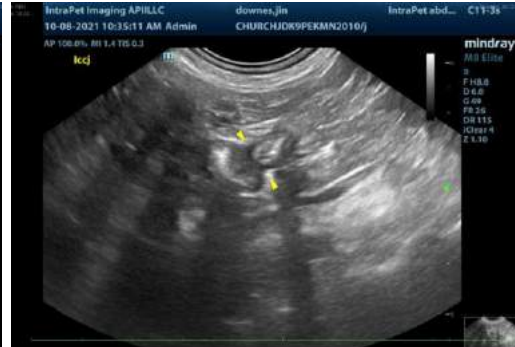
### **Secondary Findings:**

- Bilateral, non-obstructive nephrolithiasis.

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

1. To obtain a definitive diagnosis, a liver biopsy, aerobic, and anaerobic bile cultures, and acquisition of additional hepatic tissue samples for potential copper quantitation would be necessary. If an aggressive approach is not to be pursued, consider a prescription liver diet and supportive care if clinical signs arise.
2. If anesthesia is required in the future, benzodiazepines should be avoided and opioids should be used judiciously.





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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)  
Andrea.nicastro@sonopath.com