

**DATE PRESENTING CLINICAL SIGNS**

2/21/22

Pet presented on 2/8/22, labs showed new diabetes and liver elevations.

**PATIENT**

Manny Hickey

Current Medications: Insulin Lantus 1 unit BID started on 2/12/22.

Lab Results: BG &gt;380, ALP 110, ALT 269.

USG 1.047, glucosuria, negative ketonuria, normal T4 and slightly elevated PSL

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**SPECIES**

Feline

**BREED**

Domestic shorthair

**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. A scant amount of suspended echogenic debris is observed within the lumen. 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.

**SEX**

Male, neutered

**AGE**

11/26/2008

The left kidney is normal size (4.38 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

12.3 lbs.

The right kidney is normal size (4.74 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal in size (0.42 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Everhart VH

The right adrenal gland is normal in size (0.51 cm width). Normal shape and glandular echogenicity. The phrenicoabdominal vein and surrounding vasculature are normal.

**Spleen**

The spleen is normal in size (0.74 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.

**REFERRING VET**

Dr. Menefee

**INVOICE**

13006

**Liver**

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely homogeneous in appearance. A few small ill-defined, hypoechoic nodules/areas are observed, the largest measuring 0.95 cm in length. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is mildly to moderately distended. A bi-lobed configuration is suspected. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal.

### ***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 mildly thickened (up to 0.33 cm) with a normal layering pattern and appropriate mural detail. There is disruption in the normal 1:3 muscularis: mucosal ratio in most segments. Discreet masses are not identified. The ileocecal colic junction and colonic wall are normal. No obstructive disease is noted.

### ***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***

There is no evidence of free fluid. 1-2 prominent colic lymph nodes are visualized, the largest measuring 1.34 cm in length. Surrounding mesentery is slightly hyperechoic.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings:**

- The hepatic parenchymal changes are most consistent with vacuolar hepatopathy (i.e., secondary to diabetes mellitus). However, concurrent inflammatory disease or infiltrative neoplasia (i.e., lymphoma) cannot be completely excluded.
- The small intestinal wall changes are most consistent with inflammatory bowel disease. Emerging lymphoma is also possible but considered less likely at this time.

### **Secondary Findings:**

- Bilateral non-specific age-related renal changes.

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

- If an aggressive approach is desired, consider a fine needle aspirate of the liver (if clotting status is appropriate). A 25-gauge needle should be used. Alternatively, consider rechecking liver values once the diabetes is well-regulated. If liver values are still elevated at that time, hepatic tissue sampling can be revisited.
- Given that the patient is a new diabetic, consider a urine culture and sensitivity, as many diabetics have occult urinary tract infections.
- Also consider three-view thoracic radiographs to assess cardiopulmonary status.





**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