

**DATE**

2/28/22

**PRESENTING CLINICAL SIGNS**

Rapid weight loss- pet is anemia and hypoproteinemic with renal azotemia, isosthenuria and proteinuria.

Current Medications: Convenia 80mg/mL 0.5mL SQ on 12/21/21. No current medications.

Lab Results: Anemia, Hypoproteinemic, renal azotemia, isosthenuria, and proteinuria.

**PATIENT**

Tortilla Gorham

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Declined. Sedation required for further imaging.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SPECIES**

Feline

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

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

**BREED**

Domestic Shorthair

**SEX**

Spayed Female

The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. Cortical infarcts were noted in both kidneys. The right kidney measured 3.53 cm. The left kidney revealed slight pyelectasia measuring 0.2 cm. The left kidney measured 3.76 cm.

**AGE**

4/14/18

**WEIGHT**

12 lbs

**Adrenal Glands**

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.46 cm. The left adrenal gland measured 0.47 cm.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

**HOSPITAL NAME**

Lake Shore Pet  
Hospital

**REFERRING VET**

Dr. Ashley

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**INVOICE**

96397

**Gastrointestinal**

The **gastrointestinal** presentation revealed mild uniform prominence of the gastric mucosa as well as areas of "ropey" small intestinal wall with slight disruption of the normal 1:3 muscularis/mucosal ratio. The intestinal submucosa was slightly irregular, thickened and hyperechoic suggestive of low grade, chronic disease.

Intestinal wall thickness measured 0.37 cm. The duodenal papilla was mildly thickened and measured 0.73 x 0.63 cm. No concerning lymphadenopathy was visible. No evidence of obstruction was present. Chronic inflammatory bowel disease is likely with a low possibility of an early neoplastic event such as lymphoma. Full thickness tissue biopsies via open laparotomy, ideally guided by intraoperative ultrasound in order to obtain the most representative mural sample, would be necessary to rule out this possibility.

### **Pancreas**

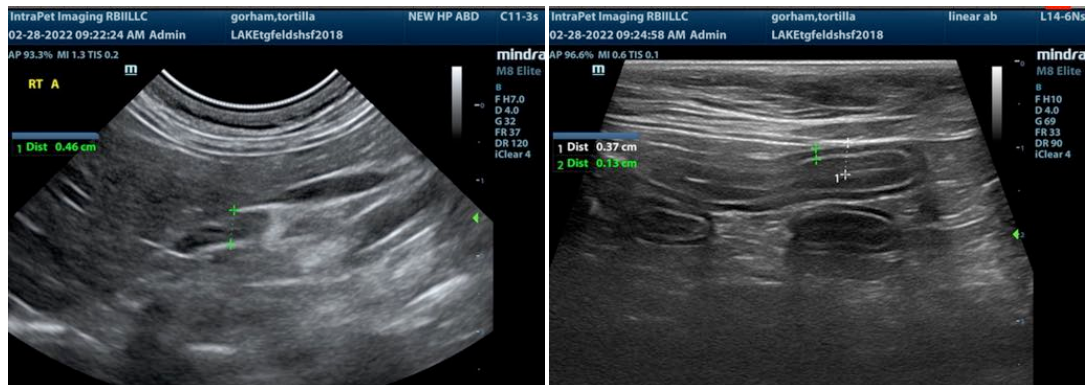
The **pancreas** revealed undulating contour and dilated duct measuring 0.36 cm. The right limb of the pancreas measured 1.11 cm.

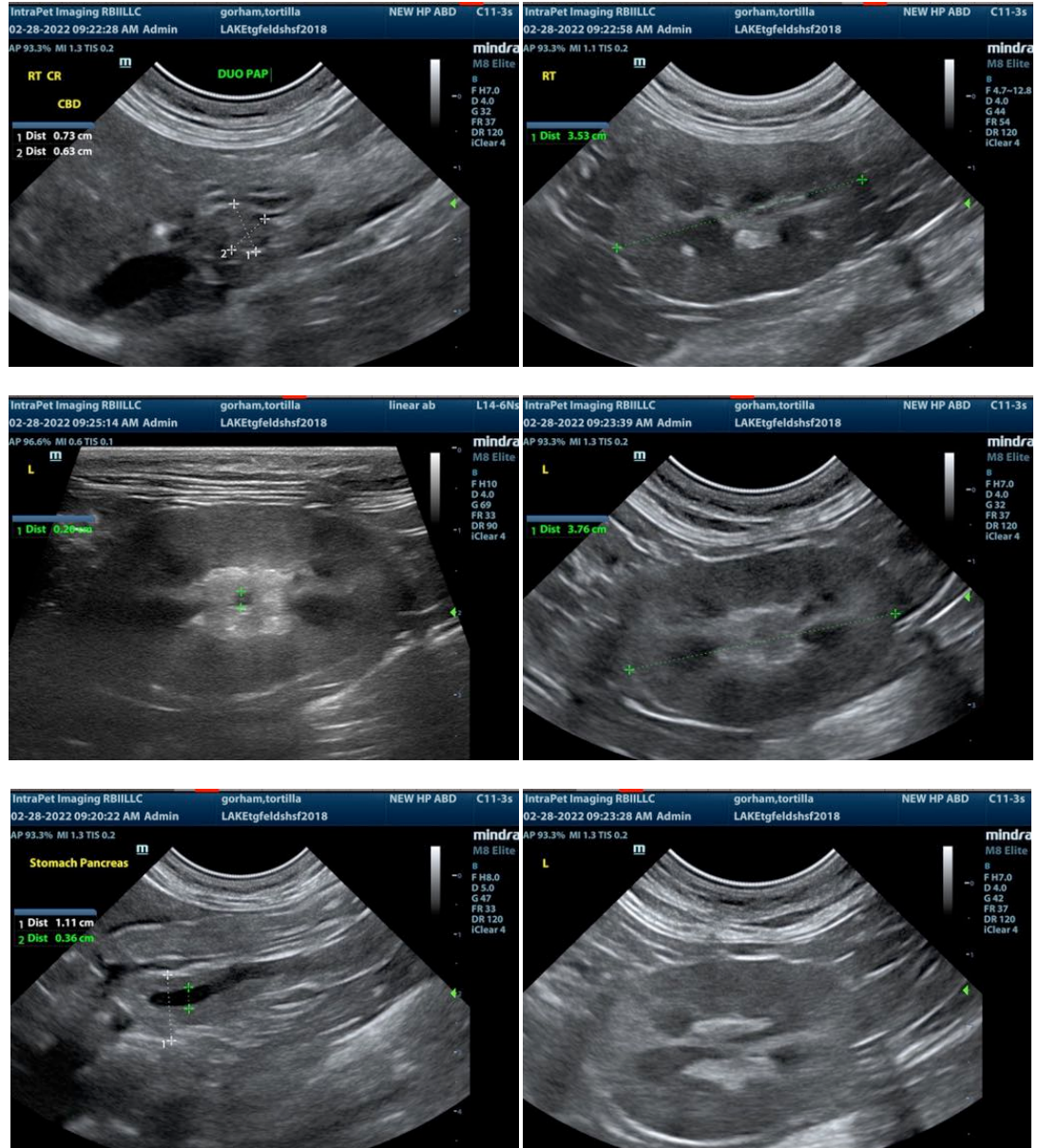
### **ULTRASONOGRAPHIC FINDINGS**

Chronic pancreatic and renal changes.  
Interstitial nephrosis pattern.  
Thickened duodenal papilla.  
Thickened intestines.  
Chronic triad disease is likely.

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

Full urinary work-up is warranted along with 48-72 hour IV fluid protocol to correct azotemia if clinically indicated based on physical exam. Blood pressure measurements are warranted. The kidneys appear 40-50% compromised. The kidneys are approximately 40-50% compromised and do not appear end stage. However, underlying infectious disease, toxin exposure or prerenal insult should all be considered. Structurally the abdomen appears stable; however, there are evident intestinal, pancreatic and renal changes that are fairly early for this age patient.





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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