



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Russell Kifer  
**HISTORY** History: Chronic weight loss first noticed starting in 2020, previous vet monitored labs yearly, appetite has decreased, previously prescribed Cerenia, also seeing smaller fecal balls. First presented to HHVH 6/10/22. Started clavamox, mirataz and lactulose.  
**SPECIES** Abnormal PE/Chem/CBC/UA Results: PE: BCS 3; palpated firm stool so treated for constipation  
 Feline Elevated amylase on previous yearly labwork, 5/31/22 - amylase 1652, ALT 179, sdma 17, fPL normal 6/10/22 - ALT 334, sdma 11; UA - usg >1.040 GI panel pending

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Siamese Urinary System**

**SEX** Neutered male  
 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.

**AGE** 14 years  
 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. Slight hyperechoic medullary rim sign was noted. This is idiopathic, but can be related to FIP.

**WEIGHT** 8.34 lbs

**INTERPRETED BY**

**Adrenal Glands**

Eric Lindquist, DMV DABVP, Cert. IVUSS  
 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.

**IMAGING PERFORMED BY**

**Spleen**

Jonathan Moss

**HOSPITAL NAME**

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.

**REFERRING VET**

Dr. Sieger

**Liver**

**INVOICE**

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.

31003

**DATE**

6/14/22



**PATIENT**

**Gastrointestinal**

Russell Kifer

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. 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.

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Neutered male

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

**AGE**

14 years

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

8.34 lbs

Minor intestinal thickening.

Triad disease with inflammatory hepatopathy is likely.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There was no organ structure deviation consistent with neoplasia. Supportive care for inflammatory bowel should prove effective. Otherwise, full thickness intestinal biopsies are necessary. A clinical trial of the following may prove effective.

**IMAGING PERFORMED BY**

Jonathan Moss

**Triaditis/Pancreatitis protocol**

**HOSPITAL NAME**

Harvest Hills VH

Part or all of this protocol may be considered based on your clinical impression of the patient:

Recommend pain management when anorexic with **Buprenorphine** (0.01-0.02 mg/kg IM or SC), clinical trial of **Zithromax** (50 mg sid/cat x 10 days, 3 weeks if bartonella +), **Prednisolone** (0.5-2 mg/kg tapering over 1 week to minimal effective dose), and **B12 injections** if weight loss (Cyanobalamine 250 mcg sub-q once-weekly x six weeks, then every other week for six weeks and then once-monthly, long-term if necessary), **novel-protein or hydrolyzed diet** (*Hydrolyzed diets have been shown to be more effective in dietary intolerance case management compared to hypoallergenic diets*) or the **magical Purina DM** (changing protein source is crucial and may need rotation every 6 months if clinical signs recur) Diet trials is a whatever works phenomenon. If vomiting becomes a persistent issue then endoscopy would be warranted and/or recheck sonogram to assess more emerging disease. One diet does not work for all patients so different trials may be necessary or protein source rotation every 6 months as new sensitivities develop.

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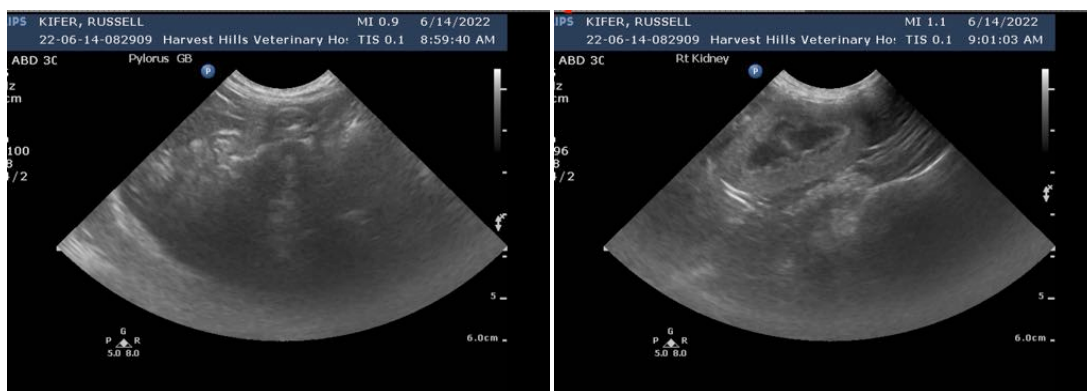
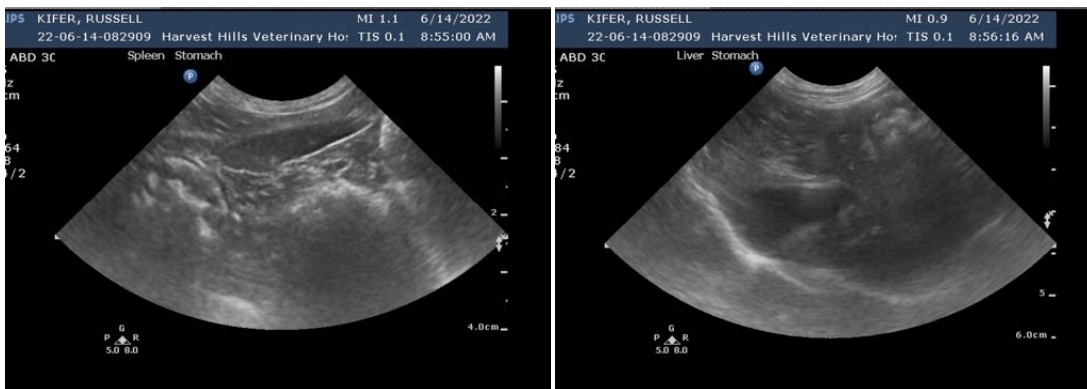
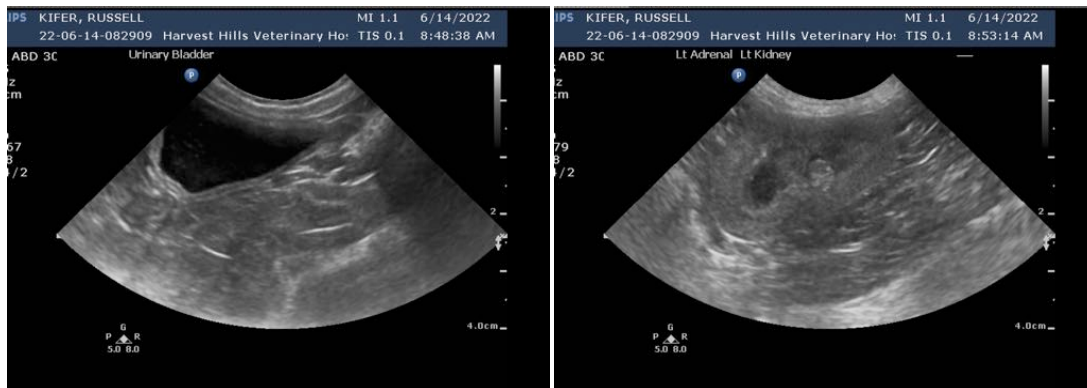
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com