

**DATE PRESENTING CLINICAL SIGNS**

4/28/23

History: Hx of IBD-- on pred EOD. Hx of cardiac murmur, see cardio - on atenolol. Owner did have sedated by their protocol and did well. Having some vomiting about 2 months ago. Started on EOD cerenia and better. Tonight, sitting in litter pan. Vomited once, did see urine.

**PATIENT**

Jackson Mancinelli

Current Medications: Buprenorphine, Gabapentin.

Lab Results: See attached.

**SPECIES**

Radiographs: stomach is dilated, worried seeing a calcified linear structure consistent with possibly the right ureter, has calcifications in the kidneys, no bladder stones noted

Feline

Date of Previous IntraPet Ultrasound: No previous.

**BREED**

Sedation: IV sedation.

DSH

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SEX****ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Neutered Male

**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 were noted. Ureteral papillae were normal.

**AGE**

10/1/17

**WEIGHT**

9.2 Pounds

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex. Mineralization was noted in the kidneys. A cortical infarct was noted adjacent to a calculus (0.37 cm) noted in the caudal pole of the left kidney. The left kidney measured 3.57 cm. Slight pyelectasia was noted (0.65 cm) in the left kidney. Pelvic calculus was also noted in the right kidney, measuring 0.35 cm. Pyelectasia in the right kidney measured 0.47 cm. Echogenic debris was present in the right kidney. The right kidney measured 3.9 cm.

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**Adrenal Glands**

The **adrenal glands** were uniform, yet bilaterally swollen and hypoechoic. This is most consistent with stress-induced hyperplasia. The right adrenal gland measured 0.6 cm.

**HOSPITAL NAME**Animal Emergency  
Hospital**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 were noted.

**REFERRING VET**

Dr. King

**INVOICE**

22201

**Liver**

The **liver** revealed coarse architecture. The gallbladder was essentially empty with mildly thickened wall. The common bile duct was dilated in this patient, measuring up to 0.63 cm with mildly thickened wall, tapered to normal thickness at the duodenal papilla. However, chronic congestion is likely. The cystic duct was also tortuous. Bilirubin values should be monitored carefully. A history of cholangitis is likely. Echogenic debris was noted at the termination of the common bile duct at the level of the duodenal papilla, consistent with mucoduct.

### ***Gastrointestinal***

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

### ***Pancreas***

The **pancreas** was enlarged (1.0 cm in width in the left limb) and hypoechoic with undulating contour. Hyperechoic enhanced mesentery was noted.

### **ULTRASONOGRAPHIC FINDINGS**

- Pancreatitis pattern
- Coarse architecture in the liver with common bile duct dilation/mucoduct/minor cholangitis pattern
- Nephroliths (nonobstructive) with concurrent dystrophic mineralization and left kidney infarct
- Stressed adrenal glands

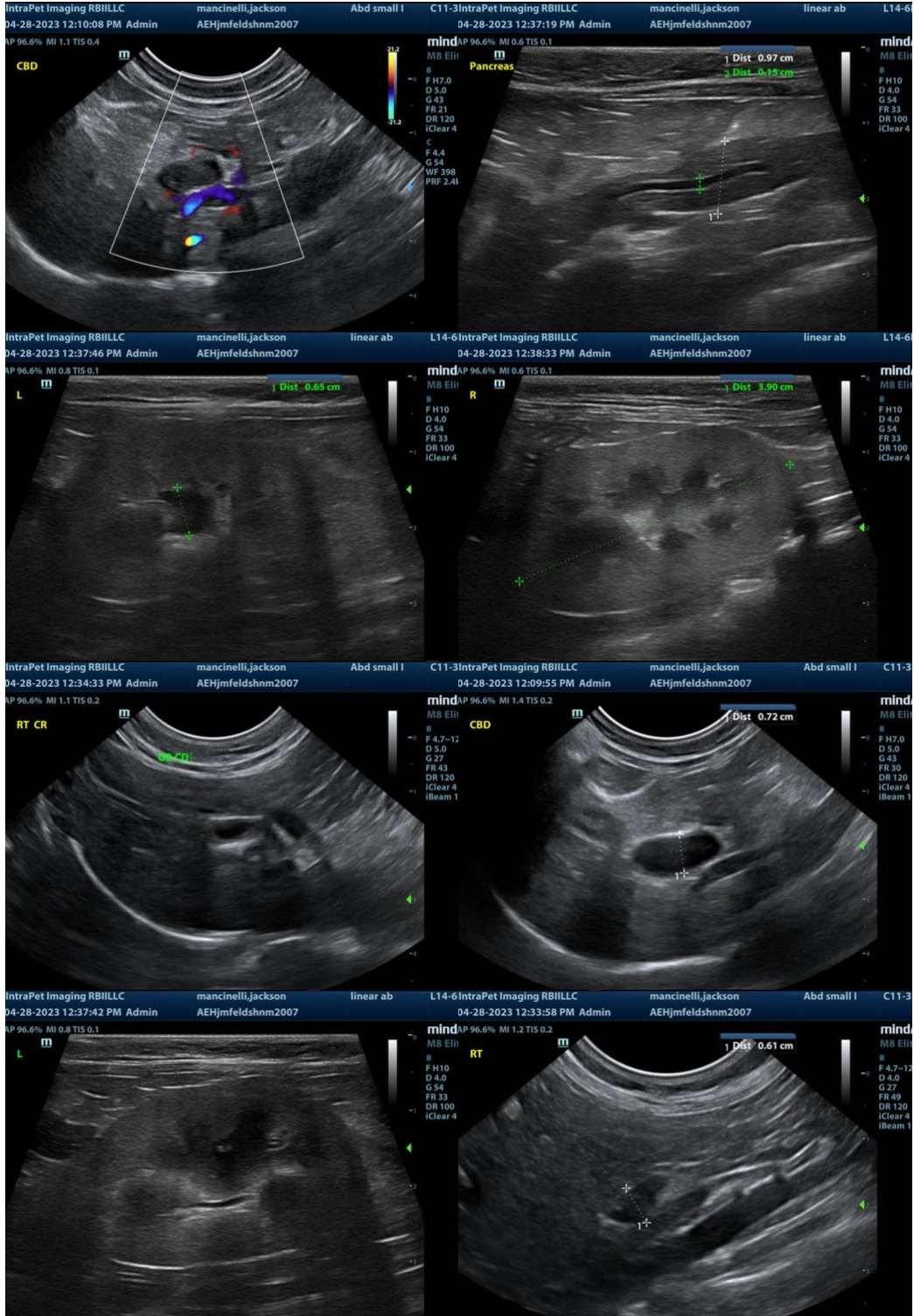
### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

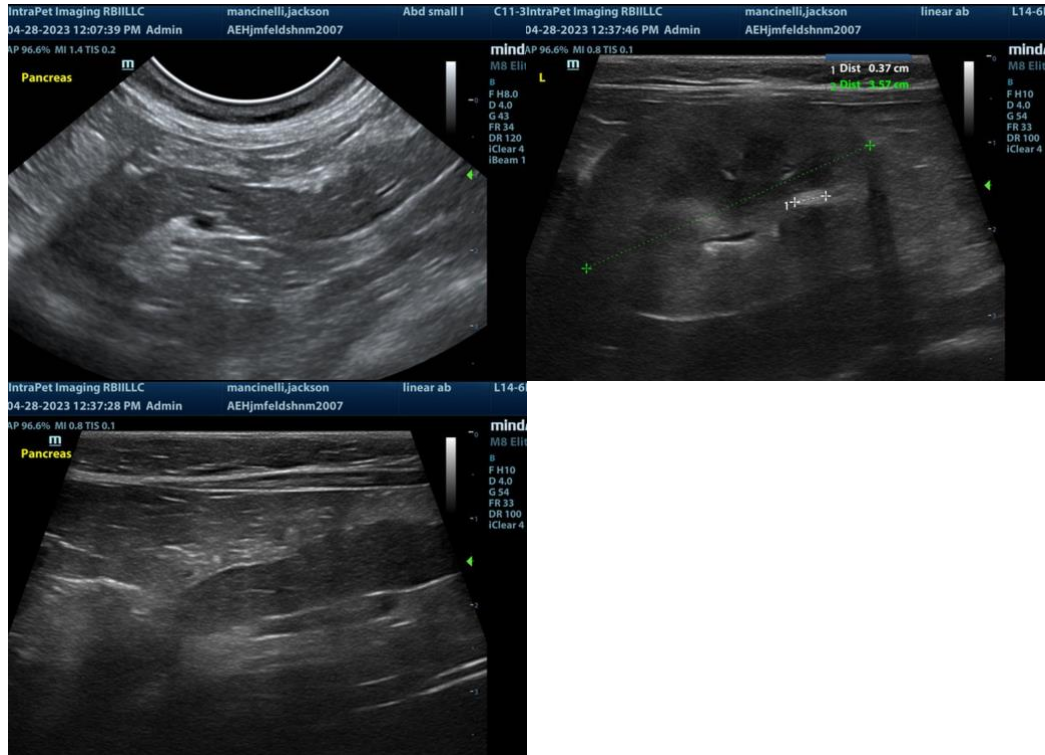
Chronic inflammatory events, involving the common bile duct, pancreas and duodenal papilla are likely playing a role in this patient. Current clinical signs are likely owing to pancreatitis, however, some discomfort owing to early biliary congestion may be an issue. Low grade infection within the right renal pelvis is possible given the pelvic dilation and debris that may not be reflected in the urinalysis. Ursodiol therapy could be considered over the next 4-6 weeks if the patient is stable, then recheck sonogram at that time. Hydrolyzed geriatric diet may be in this patients best interest. I recommend treatment for pancreatitis, such as the following protocol.

#### **Triaditis/Pancreatitis protocol**

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.





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.

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