

**DATE**

1/3/22

**PRESENTING CLINICAL SIGNS**

History: elevated kidney values, chronic UTI.  
Current Medications: Clavamox 250mg bid-14 days.  
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.  
Imaging Performed By: Rachel Brillhart, RDMS.

**PATIENT**

Ruby Freeland

**SPECIES**

Canine

**BREED**

Goldendoodle

**SEX**

Intact female

**AGE**

7/21

**WEIGHT**

40 lbs

**INTERPRETED BY**Eric Lindquist, DMV  
DABVP, Cert. IVUSS**HOSPITAL NAME**

Madonna VC

**REFERRING VET**

Dr. Brockett

**INVOICE**

94934

**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.

The ovaries were uniform and measured 0.7 cm on the left. The right ovary was also uniform and measured 0.88 cm. The uterus was uniform and measured 1.13 cm.

The **kidneys** were slightly subnormal in size and irregular in contour with deviated and dilated renal pelvises. The right kidney measured 4.94 cm. The left kidney revealed slight pyelectasia that measured 0.5 cm. The left kidney measured 5.0 cm.

**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 1.92 x 0.64 cm at the caudal pole and 0.7 cm at the cranial pole. The left adrenal gland measured 2.2 x 0.57 cm at the caudal pole and 0.56 cm at the cranial pole.

**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.

**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.

**Gastrointestinal**

The **gastrointestinal** tract revealed minor increased submucosal echogenicity and mucosal speckling. The lumen was unremarkable with no evidence of overt loss of mural detail or luminal disease was noted. However, inflammatory bowel is likely. Retention of ingesta was noted in the stomach. The albumin levels

should be monitored to assess for potential emerging protein losing enteropathy. The mesenteric lymph nodes were reactive and measured 2.0 x 0.5 cm.

### **Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

### **ULTRASONOGRAPHIC FINDINGS**

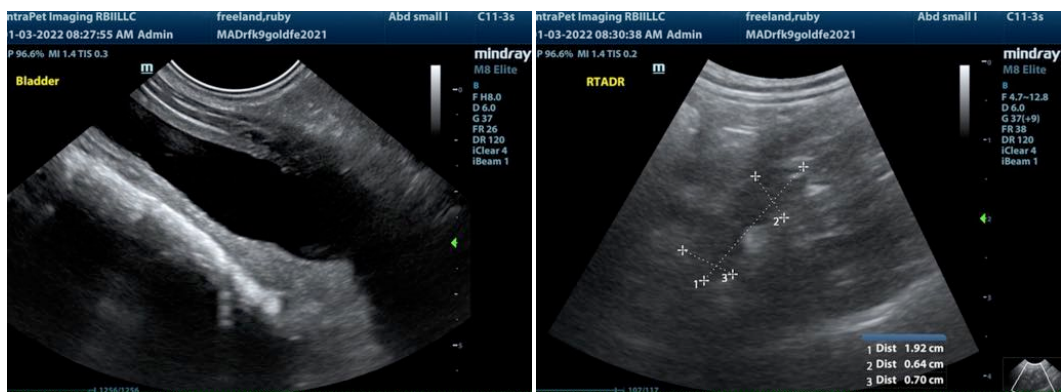
Some level of renal dysplasia is suspected.

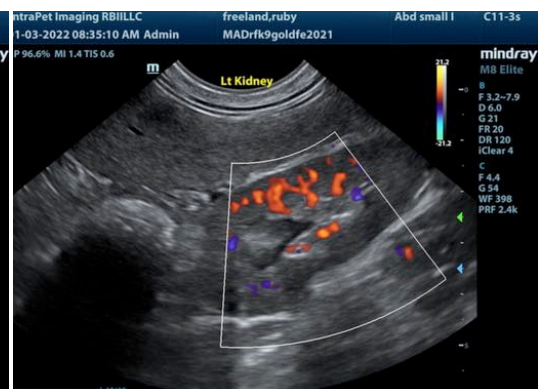
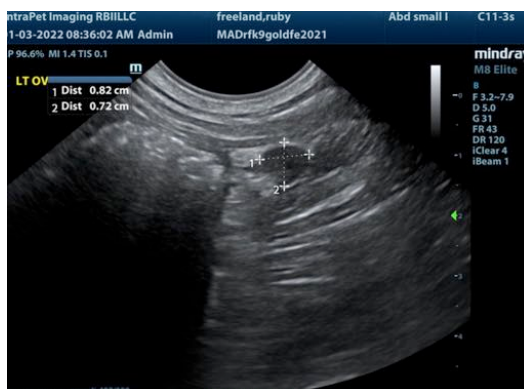
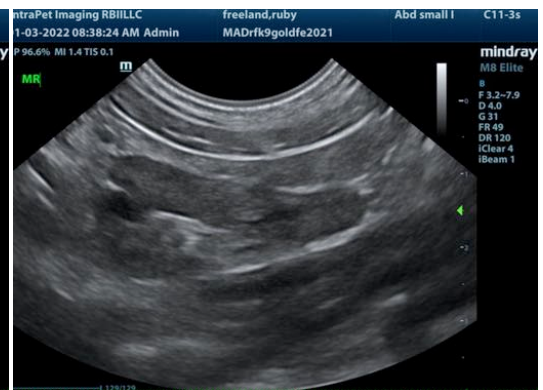
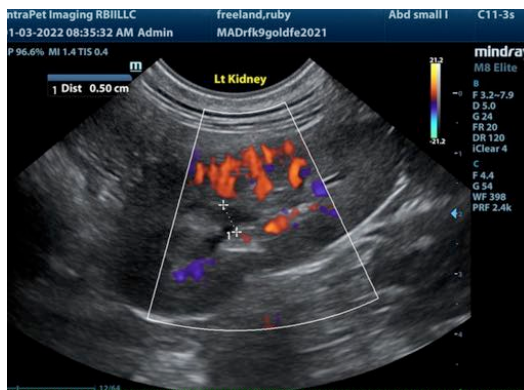
### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

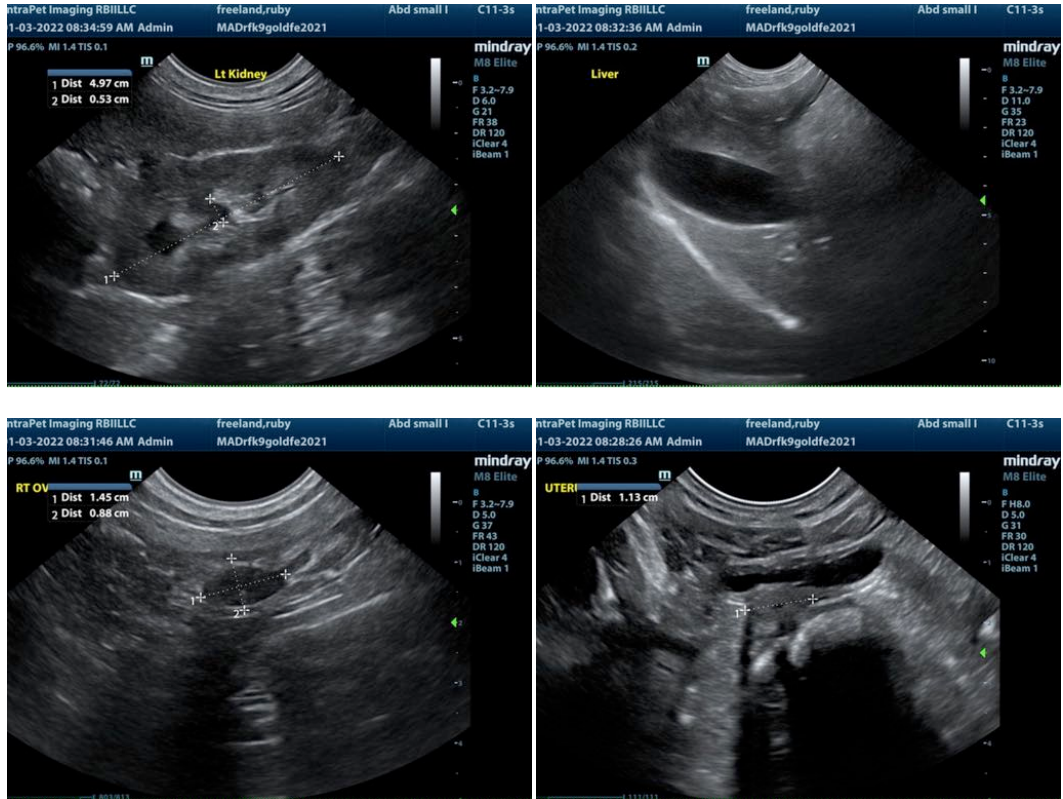
Screening for Addison's is warranted. Treatment for urinary tract infection is warranted as well as reassessment of the renal values. If ovariohysterectomy is scheduled to be performed then renal biopsy can be performed at that time. If renal dysplasia is present, it is fairly mild form. Urinary tract infection may be complicating the underlying presentation. I do not recommend breeding this pet until renal biopsies have been obtained to assess for primary dysplasia.

### **Canine Chronic UTI Protocol**

I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.







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**  
Eric.Lindquist@SonoPath.com