



**PATIENT**

Poppy Chin

**SPECIES**

Canine

**BREED**

Keeshound

**SEX**

Spayed Female

**AGE**

6 Years

**WEIGHT**

25

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Griffin

**HOSPITAL NAME**

Northside Vet Clinic

**REFERRING VET**

Dr. Griffin

**INVOICE**

21987

**DATE**

4/14/23

**PRESENTING CLINICAL SIGNS**

Patient has chronic occasional vomiting however has worsened in last 24 hrs. Owner feels she is uncomfortable, and BM had blood in it. Patient is currently taking apoquel for allergies and hepaticlear for liver support. Patient eats lamb and rice die.

Abnormal PE/Chem/CBC/UA Results: PE: mild pain on abdominal palpation U/A: cocci present, usg 1.043, pH 9 CBC/CHEM/CPL/T4/SDMA wnl 2/23 Fecal Neg 2/23

**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 were noted. Ureteral papillae were normal.

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 moderate and most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The right kidney measured 4.9 cm. The left kidney measured 4.2 cm.

**Adrenal Glands**

The **right adrenal gland** revealed a hyperechoic expansive nodule, expanding the cranial to 1.0 cm, the caudal pole measured 0.56 cm. This is most consistent with adenoma.

The **left adrenal gland** was mildly enlarged, measuring 0.6 cm at the caudal pole and 0.54 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 were noted.

**Liver**

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. The gallbladder presented some dependent debris with essentially normal contour. The hepatic lymph nodes were unremarkable. Lobar biliary mineralization was present, nonobstructive at the time of the sonogram. The vena cava appeared slightly enlarged (1.4 cm), however, it would be normal if the patient was on fluid therapy at the time of the sonogram. No evidence of portosystemic shunting.

**Gastrointestinal**



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The **stomach** in this patient was mildly thickened with a minor amount of fluid filled lumen without evidence of neoplasia. Chronic gastritis is likely. The small intestine and colon were unremarkable.

**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**

- Interstitial nephrosis pattern
- Bilateral adrenal hypertrophy with right adrenal nodule, likely adenoma
- Mild hepatic remodeling with lobar biliary mineralization (nonobstructive at the time of the sonogram)
- Mildly thickened stomach with fluid filled lumen- chronic gastritis is likely

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ursodiol therapy could be considered to attempt to dissolve the biliary mineralization. Antiparasitic protocol is warranted, if not already performed. Endoscopy is indicated. No overt ulcers noted in this patient, however microulcerative disease cannot be ruled out. Recheck sonogram in 7-10 days if the patient is clinical responding, or earlier if the patient is declining. If the patient appears cushingoid and urine specific gravity is <1.020, eventual work up for PDH is indicated. A clinical trial of the following could be considered:

**Helicobacter/Gastritis protocol**

A clinical trial of **Zithromax (Dogs: 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment)**, **Metronidazole (10-20 mg/kg p.o. b.i.d.)**, **Pepcid (0.5-1 mg/kg s.i.d.)** and **Sucralfate (0.5-2 g/dog PO)** or **Omeprazole (1 mg/kg p.o. s.i.d.)** over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.



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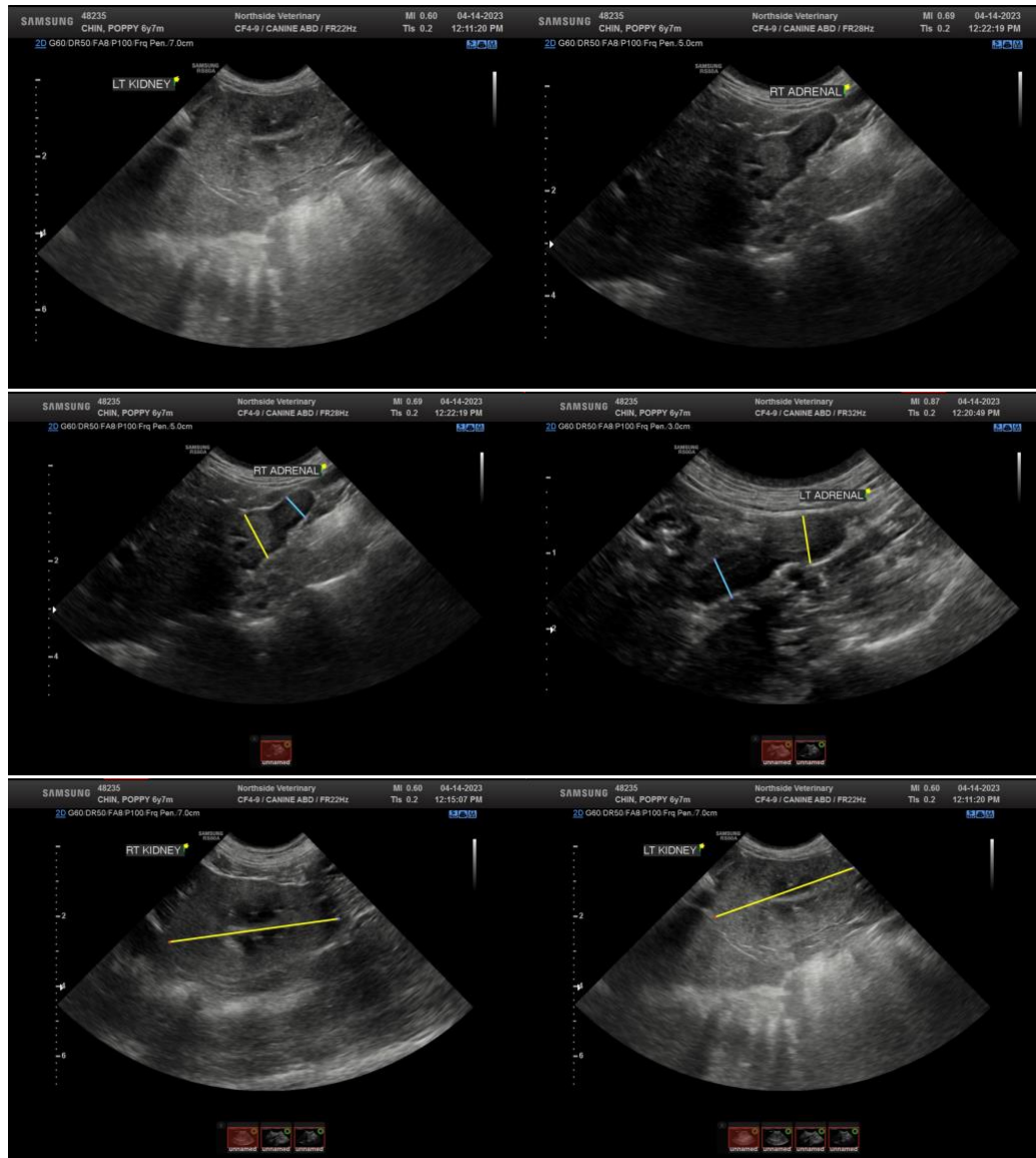
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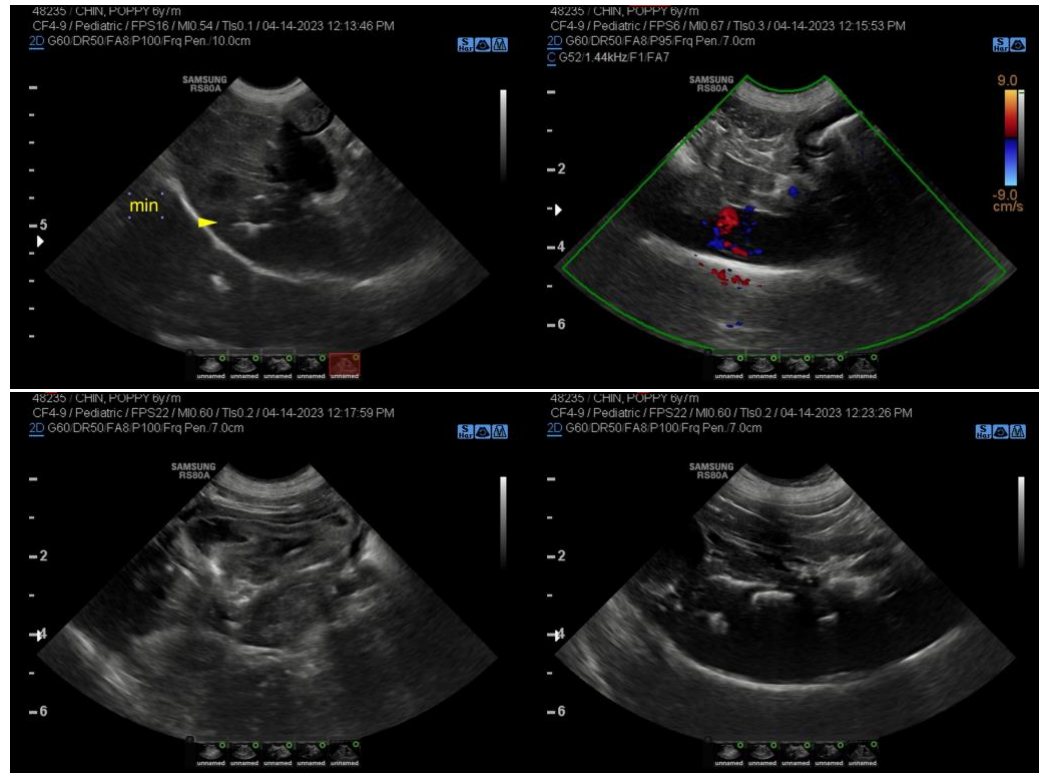
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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