



PATIENT

Feta Rudy

SPECIES

Canine

BREED

Lhasa Apso

SEX

Spayed Female

AGE

11 Years

WEIGHT

20.6 Pounds

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Whippany Vet Hospital

REFERRING VET

Dr. Cordero

INVOICE

25423

DATE

9/15/21

PRESENTING CLINICAL SIGNS

Starting beginning of August: recent changes in lab work & picky appetite with occasional diarrhea, hx of Ca+ oxalate stones. Currently stopped all meds, was on Apoquel. Had a course of clavamox 8/17/21 for skin infection.

Abnormal PE/Chem/CBC/UA Results: (9/8/21) BUN 64, Crea 3.1, PPSL 468, SDMA 29.1, Gluc 63, Plat 693 (resting cortisol pending). Had normal bloodwork previously, 7/22/21, for dental.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** presented a relatively uniform thickening of the cranioventral and craniodorsal mucosae with micropolypoid mucosal changes without involvement of the submucosae. The urine presented some echogenicity consistent with suspended debris. Sand accumulation noted. No evidence of urethral pathology was present. This presentation is most consistent with chronic cystitis. Technically transitional cell carcinoma cannot be ruled out without histopathological review but is not overtly suspected based on this pattern. Cystocentesis and urine culture +/- pathological review of urine cytology would be warranted. No overt calculi were present at this time. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction.

The **kidneys** presented a chronic interstitial nephrosis pattern with pelvic mineralization. The left kidney measured 4.54 cm. The right kidney measured 4.5 cm. Degenerative changes in the kidneys were mild to moderate.

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 left adrenal gland measured 2.6 cm x 0.53 cm at the caudal pole and 0.55 cm at the cranial pole. The right adrenal gland measured 1.92 cm x 0.71 cm at the cranial pole and 0.48 cm at the caudal pole.

Spleen

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. A minor focal hypoechoic nodule was noted, not likely pathological, measuring 6.0 mm. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. Occasional hypoechoic nodule noted. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

Gastrointestinal

The **stomach** presented a mineralizing nodule. The pyloric outflow measured 1.7 cm x 1.1 cm. The nodule appears to be in the gastric fundus. The small intestine and colon were unremarkable.



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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

- Cystitis pattern with bladder sand and small calculi
- Renal calculi and mild to moderate degenerative changes
- Splenic nodule
- Gastric fundic nodule, mineralizing – possibility of gastrinoma
- Vacuolar hepatopathy

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient is likely passing calculi periodically, contributing to the history of renal enzyme elevations. Recent passage of calculi from the kidneys to the bladder may have been an issue. Serum gastrin levels recommended. Endoscopy warranted with mucosal biopsies of the gastric nodule or monitoring with eventual ultrasound guided sampling could be considered. However, the gastric nodule appears to be too small for sampling with ultrasound guidance without some risk. The GI signs may be related to the gastric wall thickening or azotemia. Recommend correction of any azotemia. Ideally endoscopy would be performed or surgical intervention for surgical removal of the epithelial lesion. Healing ulcer, gastrinoma, carcinoma, epithelial tumor all possible. Ultrasound guided FNA of the splenic and hepatic nodules would be ideal, yet subjectively appear benign.

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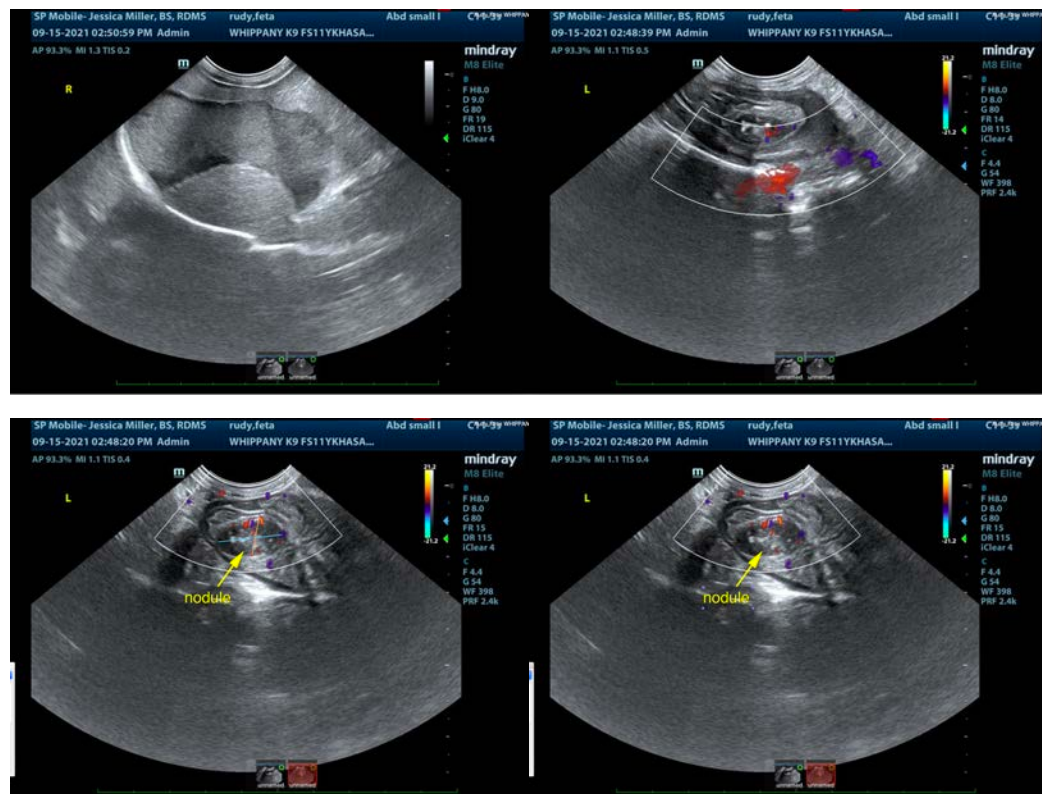
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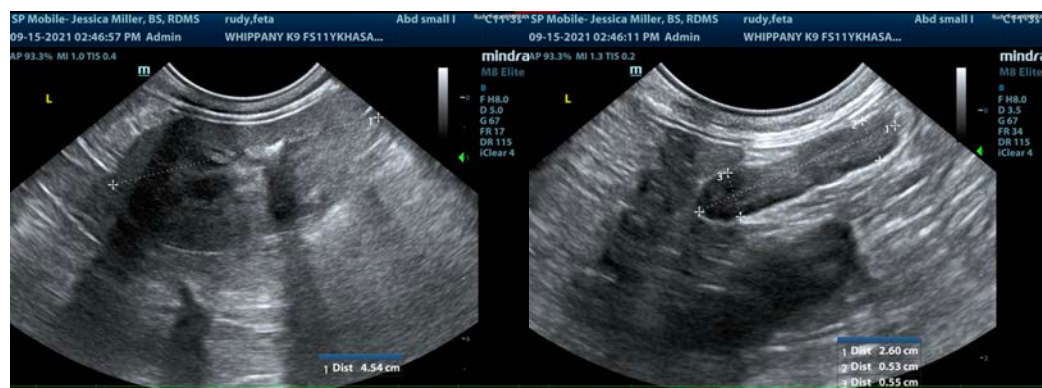
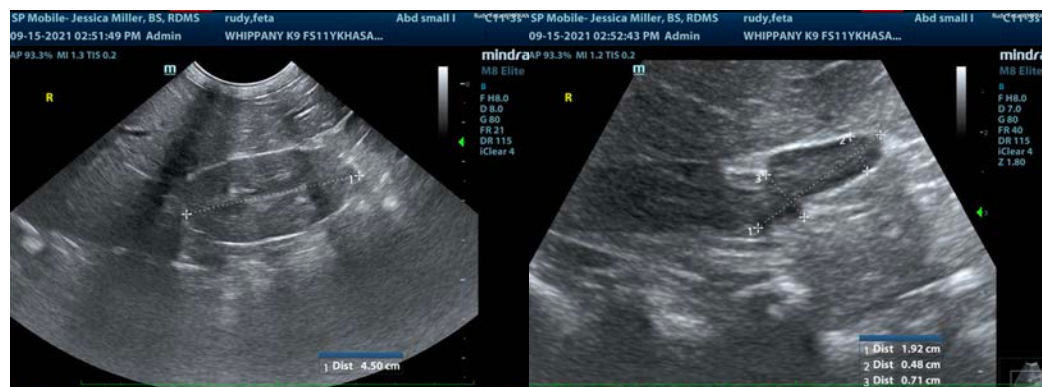
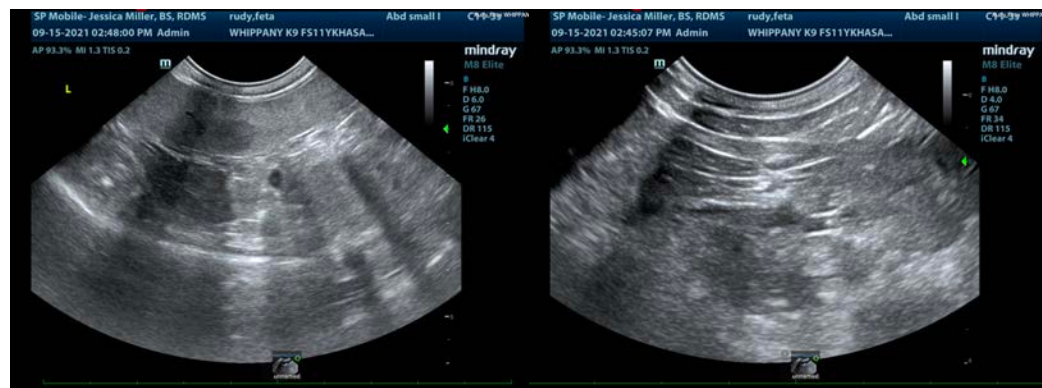
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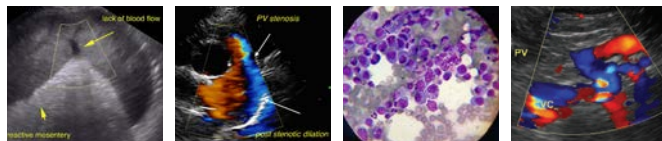
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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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