



PATIENT PRESENTING CLINICAL SIGNS

Zoe Ward Urinary incontinence, Tenesmus for the last few months, hematuria on urinalysis On a home cooked meal. Not sure when last heat cycle was. No hx of coughing. PE: Grade 5/6 murmur (has had since at least 2019- was a new client then), dental disease, HR 130, RR panting, Lungs auscultate WNL Only vaccinates for Rabies. Uses lactulose prn

Canine Abnormal PE/Chem/CBC/UA Results: BUN 10.3 (2.5-9.6) H ALT 196 (10-125) H Hematuria on urinalysis

BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Chihuahua *Urinary System*

SEX The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths, sediment, or calculi. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes or criteria was noted. The visualized urethra to a depth of 1.0 cm exhibited overtly normal structure and tone with no evidence of proximal urethral urine retention or dilation.

FI

AGE The uterine body dorsal to the bladder exhibited mild prominent size with subjective mild cystic mural changes measuring 1.3 cm in diameter. Mild segmental uterine horn luminal fluid accumulation was visualized. The fluid within the uterine horn appeared to be mildly echogenic, which may suggest some degree of fluid cellularity. Uterine horn diameter measured 0.74 cm. The probable left ovary was overtly normal in sonographic appearance measuring 0.78 cm in diameter. The right ovary was not definitively visualized.

14 yrs

WEIGHT Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Areas of nonobstructive medullary mineral were noted in both kidneys. The left kidney measured 3.1 cm in length. The right kidney measured 3.0 cm in length.

3.2 kg

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Adrenal Glands

The bilateral adrenal glands were normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 1.4 cm length x 0.59 cm width at the caudal pole. The right adrenal gland measured 1.2 cm length x 0.70 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver presented mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in



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margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size containing mild, echogenic, nondependent gallbladder debris. The gallbladder or peripheral gallbladder were sonographically normal. No evidence of gallbladder or peripheral gallbladder inflammatory criteria was noted. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Sonographically unremarkable urinary bladder and visible proximal urethra
- Bilateral chronic renal changes exhibiting nonobstructive medullary mineral
- Mildly prominent to cystic uterine body with mild segmental uterine horn luminal fluid - suspect uterine body cystic endometrial hyperplasia, possible emerging to low-grade segmental pyometra
- Low-grade hepatopathy - subjectively benign
- Mild gallbladder debris (non-mucocele)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Urine C/S on a sterile urine sample to assess for underlying infection is recommended. If underlying UTI is ruled out, empirical therapy for incontinence +/- mild cystitis could be considered. Potential for renal hematuria, given the medullary mineralization, is possible.

Potential for mild to recurrent low-grade colitis, given the history of tenesmus, may be considered.

Pending echocardiographic assessment, ovariohysterectomy with submission of uterine tissue for histopathology is likely ideal, given the possibility of emerging to low-grade pyometra. Close monitoring with sonographic reassessment of the uterus and patient clinical status would be a more conservative approach.



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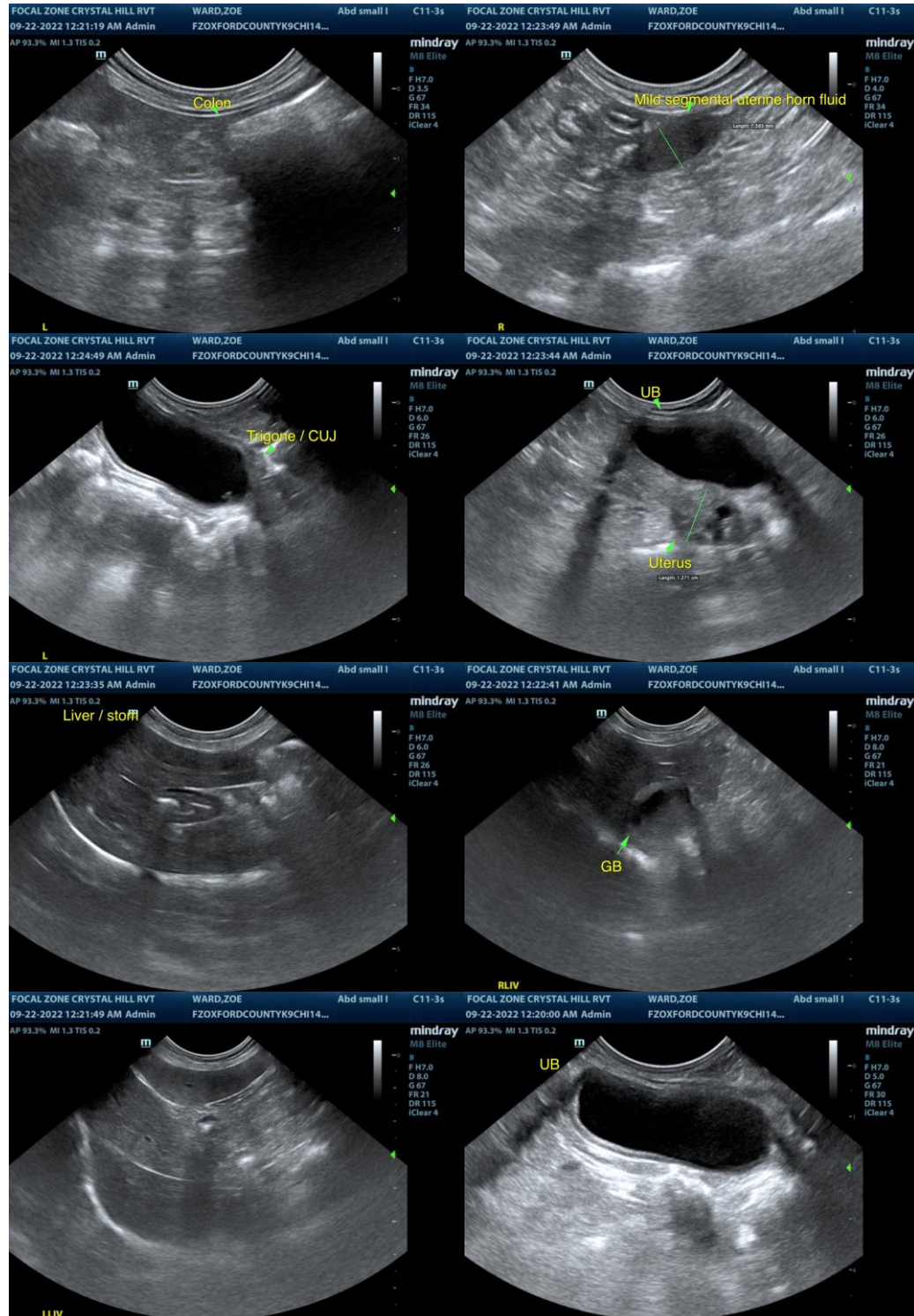
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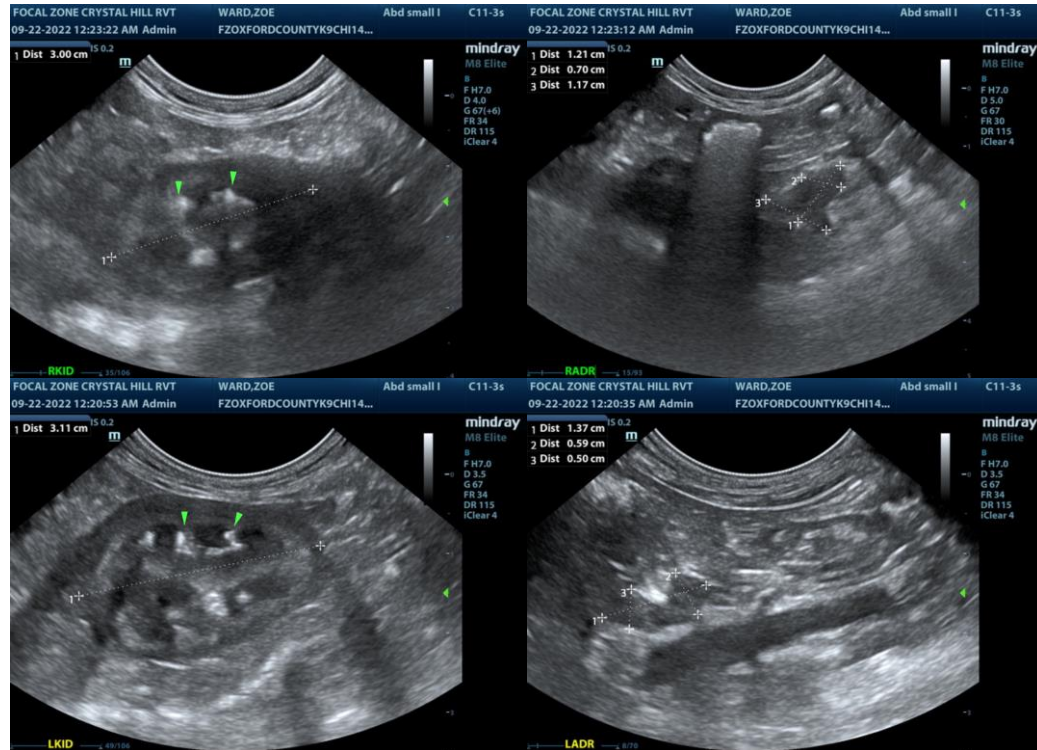
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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