

**DATE**

6/7/22

PRESENTING CLINICAL SIGNS

Hematuria, Struvite Crystalluria, persistent UTI/ Hx of Urinary Tract Infections.

Current Medications: 1/2 of a Carprofen 75mg Tablet BID, 1/4 of a Doxycycline 300mg Tablet BID.

Lab Results: URINE is mediocre concentrated with a slightly alkaline pH. Chemistry Dipstick shows protein, glucose, blood, leukocytes. Microscopic shows red blood cells, white blood cells, lots of struvite crystals, lots of rod and maybe cocci bacteria

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

PATIENT

Goldie Fogle

SPECIES

Canine

BREED

Goldendoodle

SEX

Spayed Female

AGE

9/2/14

WEIGHT

31.1 lbs

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. 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 **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 this age patient. Medullary structure differed distinctly from that of the cortex. The right kidney measured 5.75 cm with pyelectasia. The left kidney revealed pyelectasia that measured 0.57 cm x 1.29 cm. The left kidney measured 5.8 cm.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

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 1.8 x 0.52 cm at the caudal pole and 0.55 cm at the cranial pole. The left adrenal gland measured 1.95 x 0.62 cm at the caudal pole and 0.5 cm at the cranial pole.

HOSPITAL NAME

Friendly Paws VC

REFERRING VET

Dr. Price

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself caudally. This is a positional variant and is not pathological. There was no evidence of significant disease. A slight, hypochoic nodule was noted in the spleen and measured 0.81 cm.

INVOICE

30903

Liver

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypochoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. Minor gallbladder calculi were noted and non-obstructive.

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 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

Chronic cystitis bladder pattern. Minor potential for transitional cell carcinoma.

Age related renal changes with pyelectasia.

Focal splenic nodule, should be monitored +/- FNA.

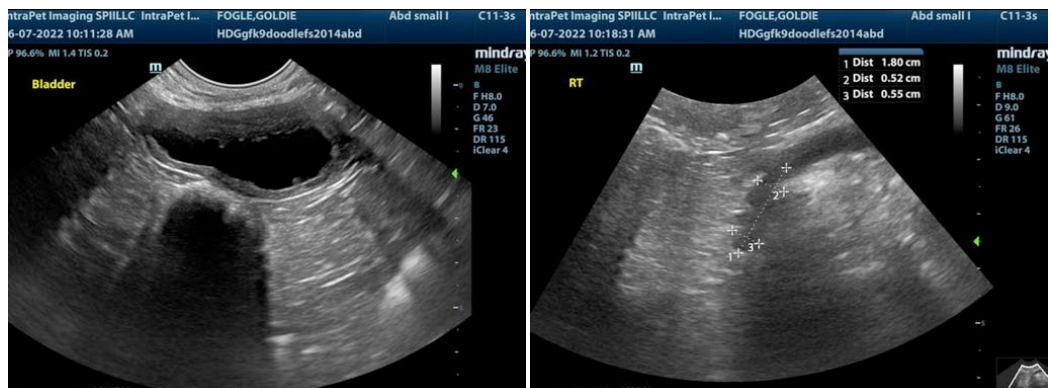
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

It is likely given the patient's history that embedded infection within the bladder that the patient has chronic bladder changes as well as renal pyelectasia. This is likely cause for recurrence in this patient. 6 week antibiotic therapy is recommended based on culture results. Recheck sonogram of the bladder, kidneys, and splenic nodule at that time is recommended. Assessment for recessed vulva is warranted or urine pooling or other predisposing issues.

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.

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