

**PATIENT**

Fern Greene

**SPECIES**

Canine

**BREED**

Boxer Mix

**SEX**

Spayed Female

**AGE**

10 years

**WEIGHT**

65 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Emily Kirk

**HOSPITAL NAME**

Shiloh VH

**REFERRING VET**

Audra Alley

**INVOICE**

97804

**DATE**

3/25/22

**PRESENTING CLINICAL SIGNS**

**History:** Patient has a history of onchodystrophy, recurrent UTIs, hypothyroidism and superficial pyoderma. She is now developing a slightly pendulous abdomen. R/o atypical Cushing's disease (no elevation in ALP, no hair loss, no panting).

**Abnormal PE/Chem/CBC/UA Results:** UP:C 4.6 H. Albumin 2.4 L. cholesterol 392 H. UPC 1.009. Labs attached.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder** presented normal thicknesses. The urethra appeared subjectively dilated with poor 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 **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 7.9 cm. The left kidney measured 6.9 cm with trace pyelectasia.

Caudal lateral to the right kidney a mixed, echogenic 1.5-2.0 cm hyperechoic lipogranulomatous type change was noted with a 1.0 cm hypoechoic nodule. This is most consistent with lipogranuloma. However, palpation of the region is recommended to assess for discomfort. A recheck sonogram possibly after an antibiotic trial would be indicated in approximately 10-14 days to assess for any growth. This appears to be separate from the kidney, yet some of the hyperechoic fatty changes do appear to approach the renal capsule.

**Adrenal Glands**

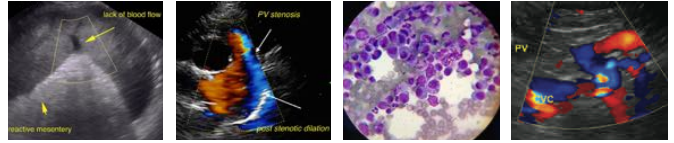
The left **adrenal gland** was slightly enlarged and measured 0.87 cm. The right adrenal gland was not visualized.

**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



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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.

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**Gastrointestinal**

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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.

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**Pancreas**

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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.

**WEIGHT**

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**ULTRASONOGRAPHIC FINDINGS**

Poor urethral tone.

Trace pyelectasia.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

Lipogranulomatous change caudal to the right kidney.

**IMAGING PERFORMED BY**

Emily Kirk

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Occult incontinence may be playing a role in recurrent UTI's. A phenylpropanolamine trial can be considered along with treatment for clearing the current UTI. Embedded infection within the kidneys is a potential. Highly resistant bacteria and predisposing issues with poor urethral tone and/or embedded infection of the kidneys are all a potential in this case. The lipogranulomatous change should be watched and monitored.

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**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.

**REFERRING VET**

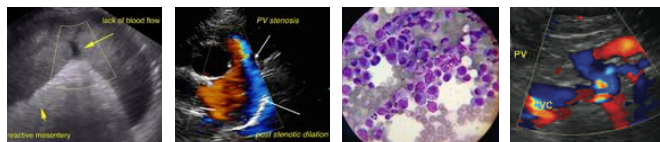
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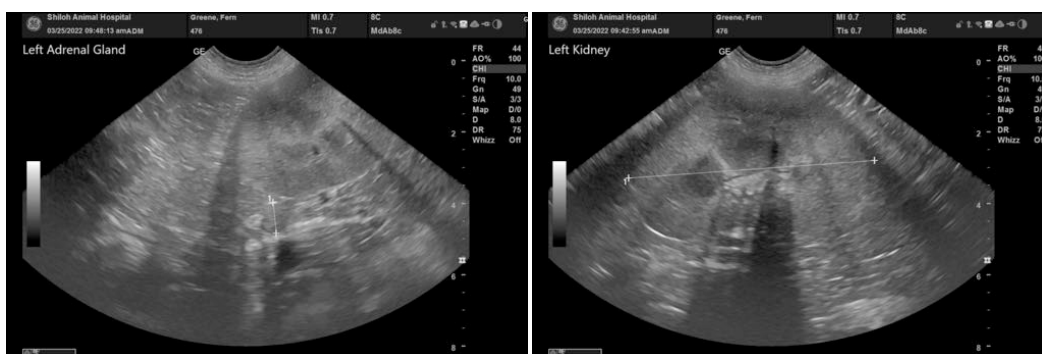
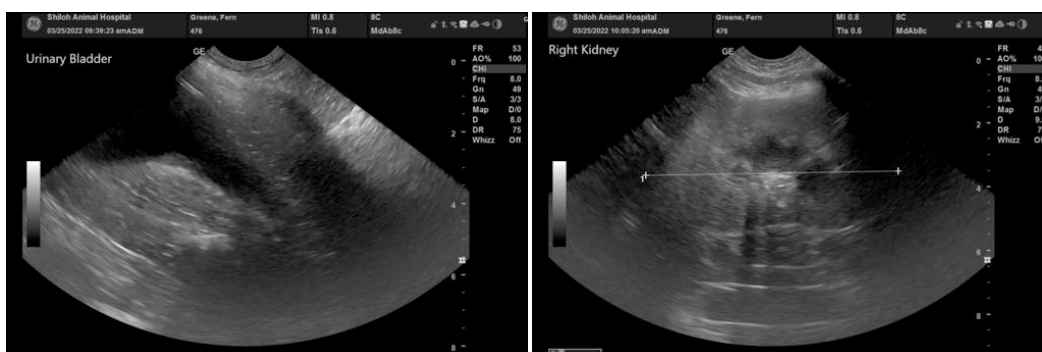
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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