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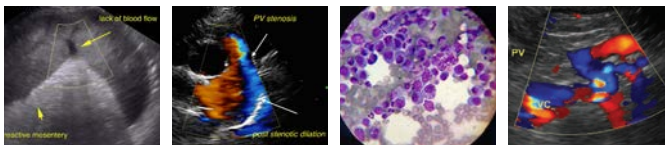
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Daisy Budkiewicz

**SPECIES**

Canine

**BREED**

Terrier X

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

44 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Ebersole

**HOSPITAL NAME**

Scanvet

**REFERRING VET**

Dr. Kaltsas

**INVOICE**

41014

**DATE**

9/2/22

## PRESENTING CLINICAL SIGNS

Recurring UTI starting 8/1/2022. Pollakiuria, urinary accidents and repeated pyuria. Treated with Clavamox x 17 days total.

Abnormal PE/Chem/CBC/UA Results: UA (8/11): WBC, RBC and both rod and cocci bacteria. No epi cells or crystals. UA (8/24): WBC, RBC and bacteria still present. Cysto for urine C&S today.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The **urinary bladder** revealed dorsoventral apical wall thickening, occupying the cranial third of the bladder wall. Lower urinary tract was unremarkable including the cystourethral junction, trigone and urethra.

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 his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 6.06 cm. The left kidney measured 7.12 cm.

### *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 0.60 cm. The left adrenal gland measured 0.50 cm.

### *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. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

### *Gastrointestinal*

The **stomach** itself was unremarkable. Mucosal striations noted in the small intestine, consistent with lymphangiectasia. Albumin levels and GI signs should be monitored carefully.

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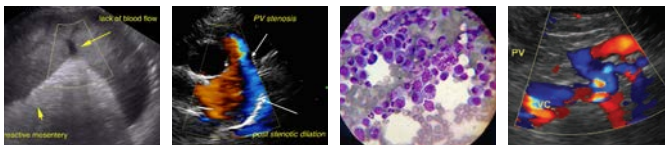

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## *Pancreas*

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

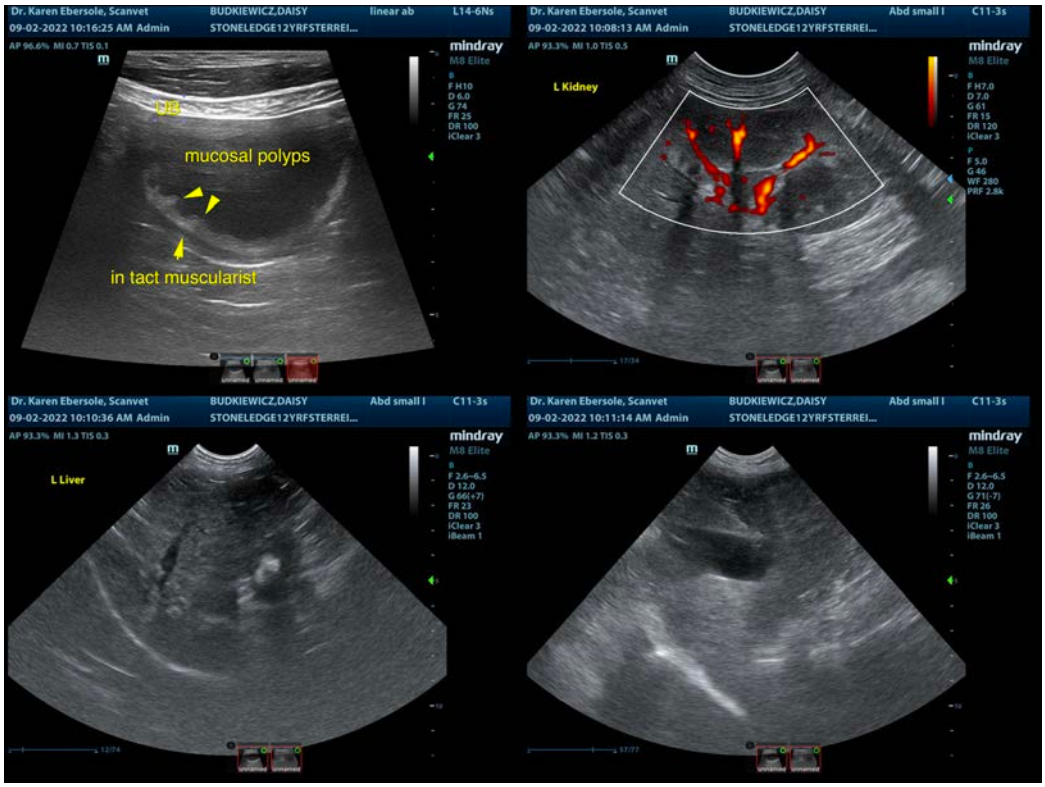
- Mild polypoid thickening in the apex of the urinary bladder, likely serving as a nidus for recurrent UTI.
- Age related renal changes
- Age related hepatic changes

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Treatment for chronic cystitis could be considered over a 4-6 week period, or potential removal of the cranial third of the urinary bladder with biopsies and culture. The polypoid changes in the bladder appear to be mucosal, and therefore neoplasia is unlikely, as the muscularis, submucosal, and serosal layers were intact.

**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.



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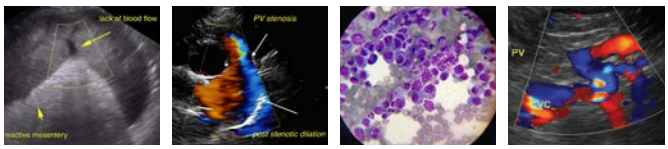

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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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

info@SonoPath.com