



PATIENT

Gracie Smith

PRESENTING CLINICAL SIGNS

History: History of recurrent UTI's on and off for the past year. Recent Azotemia presented for second opinion. Worsening azotemia w/ hypercalcemia. Urine culture pending.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Beagle

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. Dependent debris was noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal.

SEX

Spayed female

AGE

13 years

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. Pyelectasia was noted in the both kidneys with echogenic debris. This is suggestive for pyelonephritis. Ill-defined pelvic fat was noted. This is suggestive for inflammation. Pericapsular inflammatory pattern was noted. Both kidney measured 4.5 cm.

WEIGHT

26 lbs

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.

IMAGING PERFORMED BY

Dr. Puthoff

Spleen

The **spleen** was largely normal with a focal, hypoechoic nodule that measured 0.4 cm. The remainder of the spleen was unremarkable with only subtle, heterogenous parenchymal changes.

HOSPITAL NAME

Kings VH

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. Subtle, micronodular changes were noted and were non-disruptive in the liver. 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.

REFERRING VET

Dr. Puthoff

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32811

DATE

9/9/22

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.

SPECIES

Canine

Pancreas

BREED

Beagle

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.

SEX

Spayed female

ULTRASONOGRAPHIC FINDINGS

Chronic UTI pattern with chronic pyelonephritis.
Splenic and hepatic nodular changes.

AGE

13 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

26 lbs

FNA of the splenic nodule and possibly the liver is warranted. 6 week antibiotic therapy based on culture results is recommended followed by a recheck sonogram.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUS

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.

IMAGING PERFORMED BY

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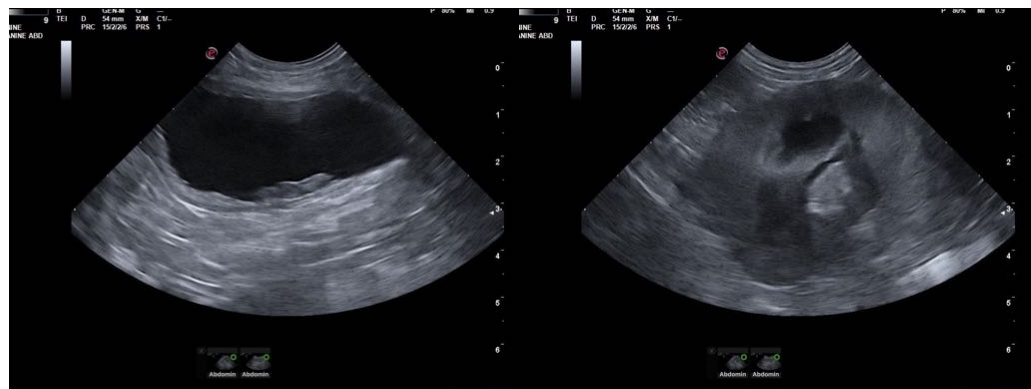
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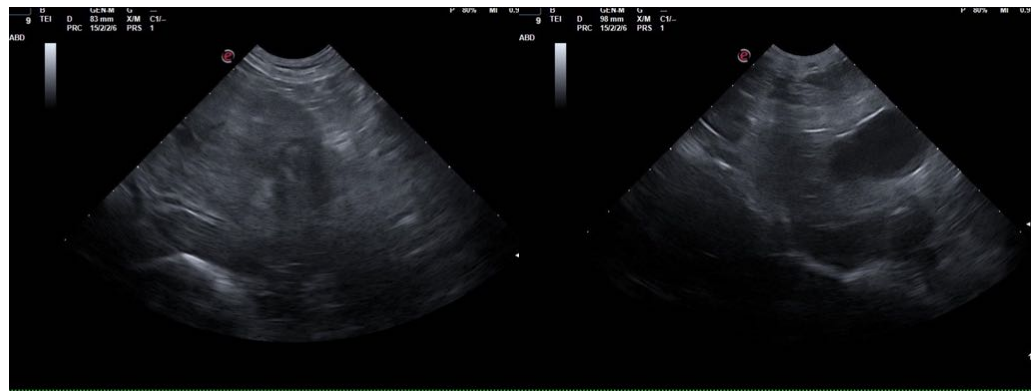
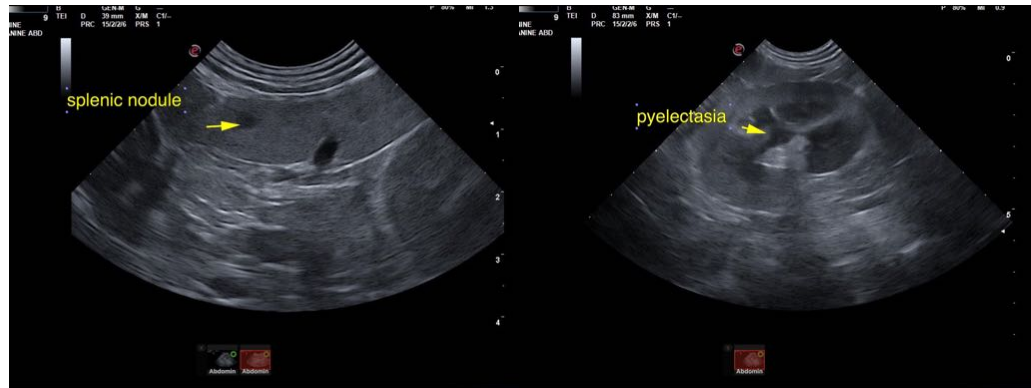
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com