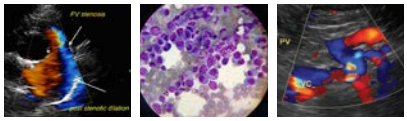
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

4/23/23

PATIENT

Nash Clark

SPECIES

Canine

BREED

Old English Bulldog

SEX

Spayed Female

AGE

2014

WEIGHT

71.3 Pounds

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Martinoli

INVOICE

46883

PRESENTING CLINICAL SIGNS

Referral. Urinary Obstruction. History: Date: 04-22-2023 Notes: No history of urinary problems (infections, etc.) in the past, although her other dogs have had urinary problems, so Nash has been on Urinary SO diet for many years. Yesterday owner said Nash was grumpier than usual when she picked her hind end up to help her get on the couch however she jumped off the couch fine. This morning owner (and at rDVM) saw her posturing to urinate yet no urine production. Xray at vet this morning showed very enlarged bladder but not obvious stones.

Assessment: r/o urethral stones, bladder or urethral mass, extraluminal mass compressing urethra. Catheter passed / placed easily.

Current Medications: (1) Clavamox Tablets 625 mg (Large Dog), (1.0833) Buprenorphine 0.6mg/mL, and (0.05) Acepromazine 10mg/mL Injection.

Lab Results: Attached.
Radiographs: See above.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** presented a minimal amount of urine. Foley catheter was in proper position. The apical bladder wall was fairly uniform in its excessive thickness at 1.71 cm. Reactive iliac/sublumbar lymph node at 1.77 cm x 0.82 cm.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 6.9 cm. The right kidney measured 6.82 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 left adrenal gland measured 2.9 cm x 0.74 cm at the caudal pole and 0.72 cm at the cranial pole. The right adrenal gland measured 2.65 cm x 1.17 cm at the caudal pole and 0.93 cm at the cranial pole.

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 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 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.

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

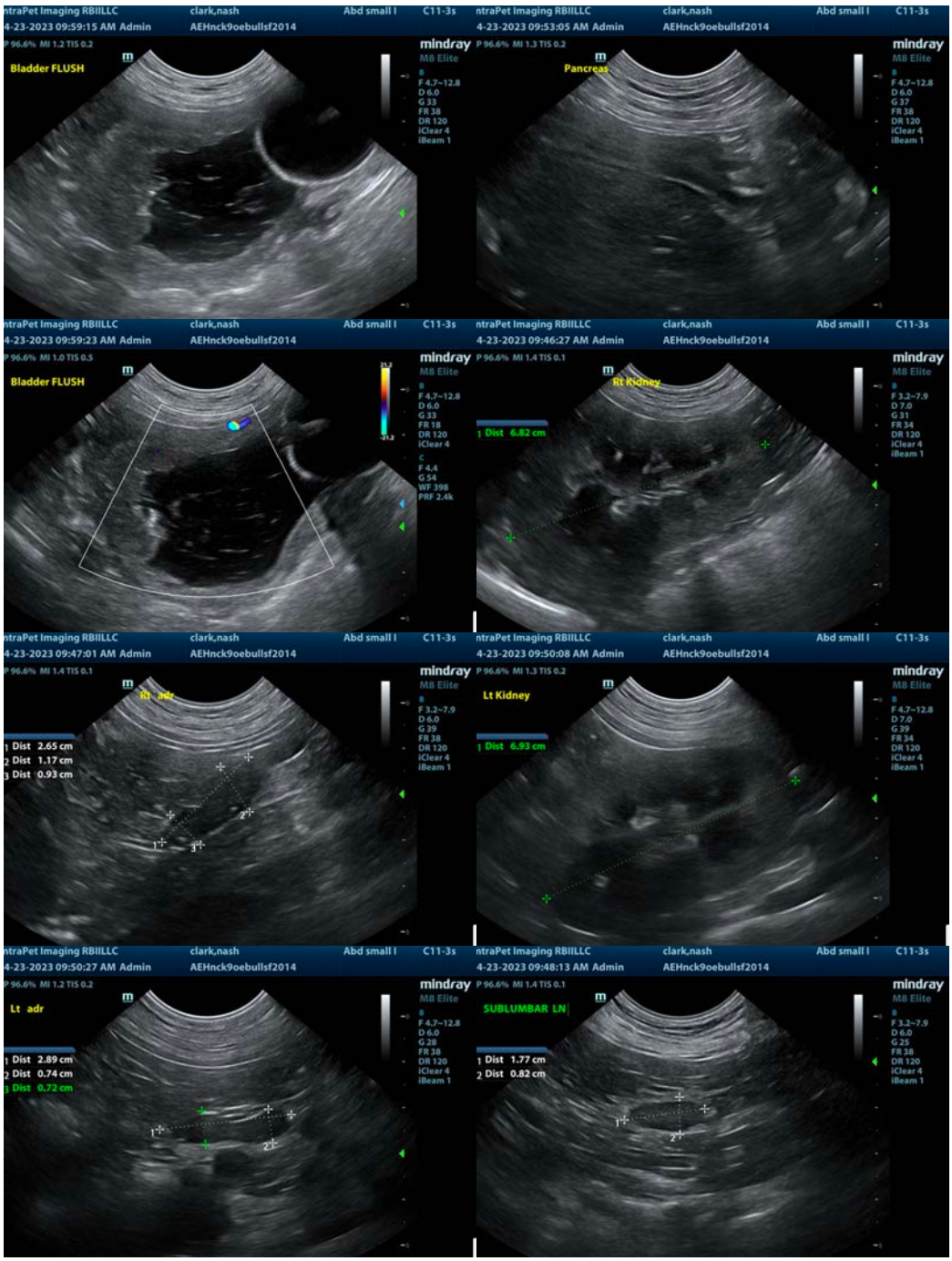
- Chronic cystitis bladder pattern, minimal potential for neoplasia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Cytospin of a urine sample indicated to assess inflammatory versus potential neoplastic cells, particularly with the minimal amount of urine present in the bladder, though not suspected. BRAF testing would be appropriate. Urine culture and sensitivity and 4-6 week antibiotic therapy treatment warranted for chronic UTI, preferably based on culture results. Recheck sonogram in 4 weeks prior to stopping any antibiotic therapy. However, given the apical bladder wall thickening, presuming this is cystitis related, then at least 4-6 weeks of treatment for UTI would be indicated.

Another option would be to surgically remove the cranial half of the urinary bladder in order to resect any potential underlying carcinoma even though not suspected, as well as to remove any chronic nidus of infection that may be embedded within the apical wall. Examination of the vaginal vestibule for predisposing issues such as recessed vulva and urine pooling would also be indicated.

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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Bladder FLUSH
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Pancreas
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Bladder FLUSH
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Rt Kidney
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Rt adr
1 Dist 2.65 cm
2 Dist 1.17 cm
3 Dist 0.93 cm
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Lt Kidney
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Lt adr
1 Dist 2.89 cm
2 Dist 0.74 cm
3 Dist 0.72 cm
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AEHnck9oebullsf2014
SUBLUMBAR LN
1 Dist 1.77 cm
2 Dist 0.82 cm
mindray
M8 Elite

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