



PATIENT

Cookie Sarmiento

SPECIES

Canine

BREED

Border Collie

SEX

Spayed female

AGE

10 years

WEIGHT

50 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

**IMAGING
PERFORMED BY**

JK

HOSPITAL NAME

Hamburg VC

REFERRING VET

Dr. Martens

INVOICE

42205

DATE

10/31/22

PRESENTING CLINICAL SIGNS

History: Leaking urine, hematuria,
Abnormal PE/Chem/CBC/UA Results: URINE 3+ protein, wbc 4-10, rbc >50,

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 submucosa, muscularis and serosal layers appear to be intact. This is suggestive of chronic cystitis. The urine presented some echogenicity consistent with suspended debris. No evidence of urethral pathology was present. This presentation is most consistent with chronic cystitis.

The iliac trifurcation was unremarkable.

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 left kidney measured 4.87 cm.

Adrenal Glands

The left adrenal gland was uniform and measured 2.27 x 0.64 cm. The right adrenal gland was enlarged and invasive. The cranial pole measured 1.7 cm and the caudal pole measured 1.83 cm. Phrenic vein invasion measured approximately 1.0 cm into the vena cava. It appears to be potentially resectable.

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 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

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

Moderate to severe chronic cystitis pattern. Unlikely to be transitional cell carcinoma.

Right adrenal mass, invasive. Carcinoma versus pheochromocytoma are the differentials.

Age related renal and hepatic changes.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The right adrenal mass appears potentially resectable depending upon surgical approach. Cystoscopy would be ideal to obtain mucosal biopsies. Removal of 60% of the bladder to mid to cranial would likely remove the chronic cystitis pattern. However, concurrent right adrenalectomy is necessary. Serial blood pressure measurements are warranted. If the patient appears Cushingoid work-up for adrenal dependent Cushing's would be indicated. There is a minor potential for transitional cell carcinoma of the bladder. There was no evidence of metastatic disease.





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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.

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