



PATIENT

Coolie Pais

PRESENTING CLINICAL SIGNS

History: Presented for vomiting and diarrhea. On omeprazole fortaflor and cerenia. Abnormal mass found on left side of the bladder at the apex.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Shih Tzu

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. Bladder wall thickness measured 0.45 cm. A large amount of debris was noted. Sand accumulation was also noted, grouping of which measured 1.13 cm. Slight apical, hypoechoic mural nodular change was noted. This may be residual uracocele or urachal remnant.

SEX

Spayed female

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 revealed an anechoic cystic structure at the caudal pole with corticomedullary calculi. The right kidney measured 5.26 cm. The left kidney measured 4.83 cm with non-obstructive calculi.

AGE

13 years

WEIGHT

7.8 kg

Adrenal Glands

The right **adrenal gland** was 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 revealed a nodule that measured 1.0 cm at the cranial pole. The left adrenal gland was enlarged and measured 0.81 cm at the caudal pole and 0.58 cm at the cranial pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

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.

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Mcknight 24 Hr AH

REFERRING VET

Dr. Malaguti

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.

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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. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected. Hyperechoic surrounding fat was noted around portions of the hypoechoic pancreas. This may represent low-grade inflammation.

AGE

13 years

ULTRASONOGRAPHIC FINDINGS

Renal calculi and cortical cysts, moderate degenerative changes.

Bladder debris and mineralization.

WEIGHT

7.8 kg

Slight apical, hypoechoic mural nodular change was noted. This may be residual uracocele or urachal remnant.

Bilateral nodular adrenal glands, potential PDH.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Heterogenous pancreas, possible low-grade pancreatitis.

IMAGING PERFORMED BY

Dr. Belan

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Resection of the apex of the urinary bladder could be considered with bladder lavage, culture and sensitivity. The patient is likely passing calculi periodically. Full adrenal work-up is warranted if the urine specific gravity is less than 1.020 and the patient appears Cushingoid.

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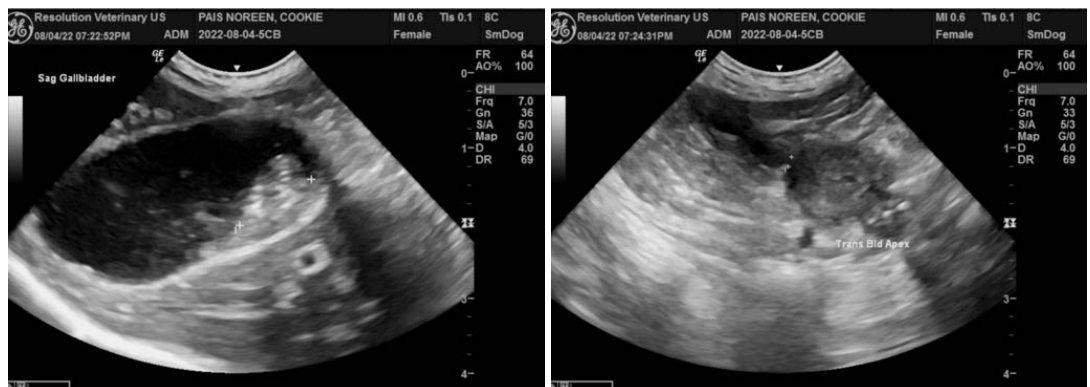
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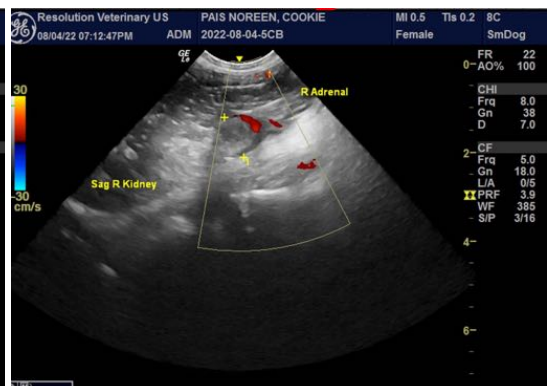
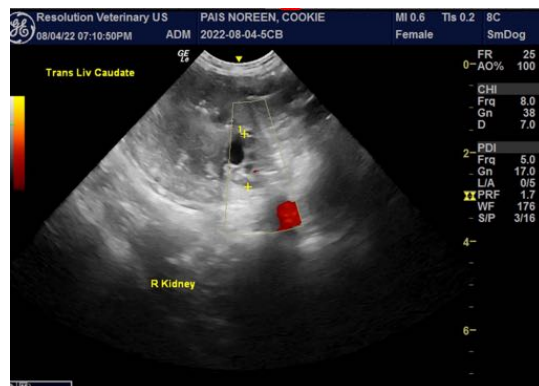
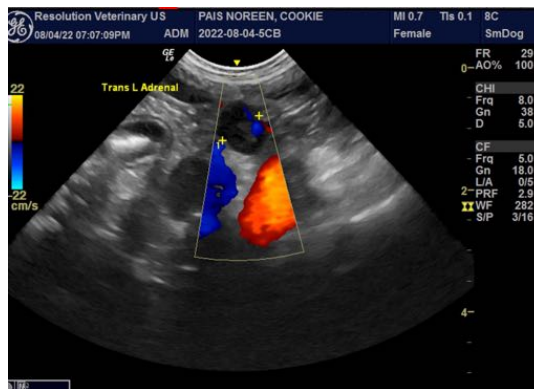
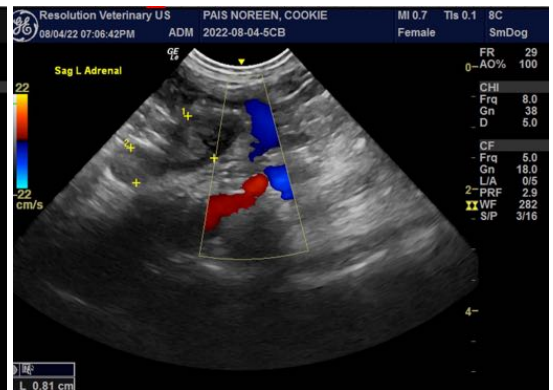
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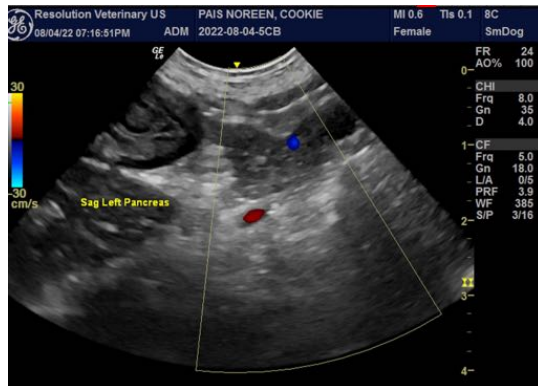
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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