

PATIENT

Sparky Reynolds

SPECIES

Canine

BREED

Puggle

SEX

Neutered male

AGE

11 years

WEIGHT

22.2 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Carpenter

HOSPITAL NAME

Pennridge AH

REFERRING VET

Dr. Carpenter

INVOICE

76290

DATE

7/27/23

PRESENTING CLINICAL SIGNS

History: Sparky is a 12 yo MN Pug/Jack Russel Mix 22.2# Sedated with Gabapentin and Butorphanol Sparky has a history of chronic atopy, controlled with cytopoint. Presented 1 year ago with chronic ALP (ALP in 700 range) elevation. NSF with radiographs other than a cystolith was noted. LDDST not consistent with Cushing's. Heart murmur and workup showed CVD and started on Pimobendan. AUS performed 1 year ago - normal adrenal size, GB sludge, hepatomegaly with hyperechoic parenchyma (r/o fat vs vacuolar change), solitary liver nodule noted of unknown significance but the radiologist noted the overall appearance was "concerning", hyperechoic pancreas, solitary cystolith, mild muscularis thickening of small bowel. Patient was started on Ursodiol, urinary s/o, and weight loss regimen. ALP has reduced to 500 range, all other b/w normal. Here for recheck US to monitor liver nodule and O would like to consider cystotomy for cystolith. Patient is clinically doing very well.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. Shadowing calculus measured 0.52 cm and were non-obstructive. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

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. Calculi were noted in both kidneys. The patient is likely passing calculi periodically from the kidneys to the bladder. The right kidney measured 4.6 cm. The left kidney measured 4.57 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 1.27 x 0.38 cm at the caudal pole and 0.48 cm at the cranial pole. The left adrenal gland measured 1.82 x 0.42 cm at the caudal pole and 0.45 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 was noted.



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Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

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. There is some remodeled mesentery noted associated with the GI tract.

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

Bladder calculus.

Non-obstructive nephrolithiasis.

Vacuolar hepatopathy pattern.

Mild, remodeled mesentery. Like due to history of inflammation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Cystotomy, stone analysis and culture is indicated. Unfortunately then patient may have passed further calculi from the kidneys to the bladder in the future, yet there is no indication on when/if that can happen. There is no obstructive pattern at the time of the sonogram.



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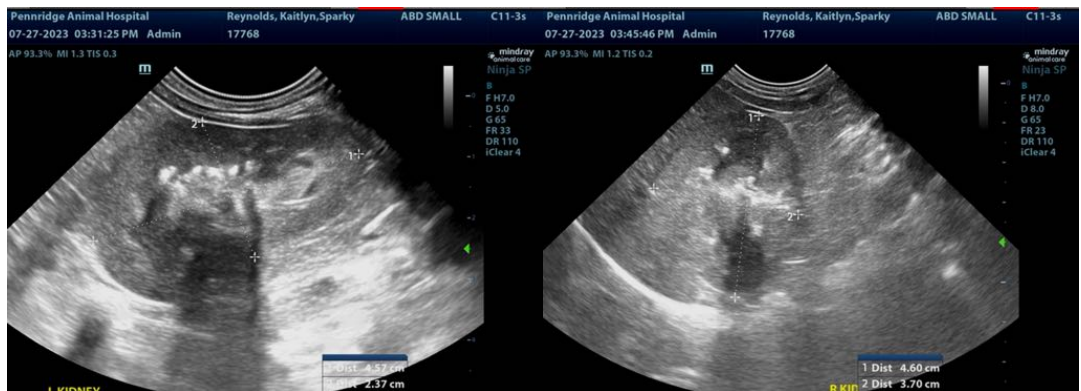
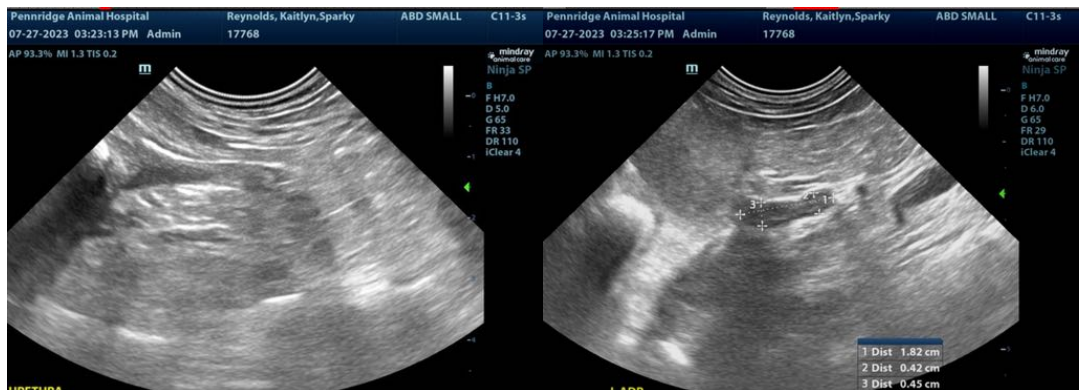
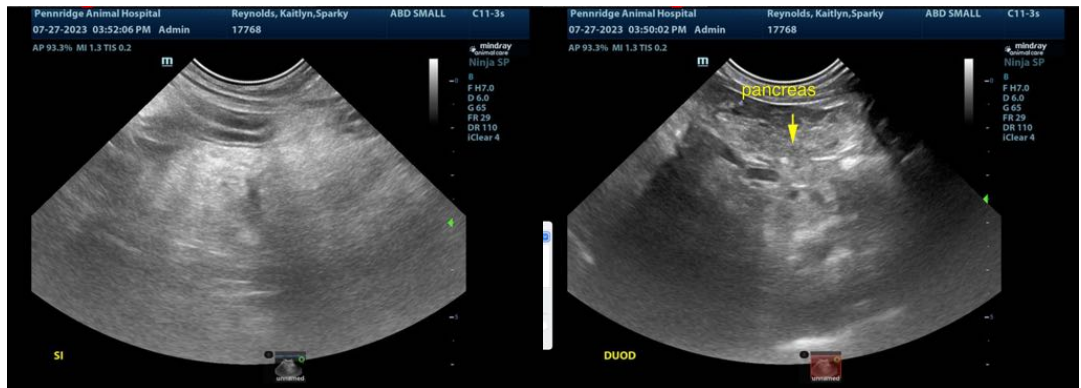
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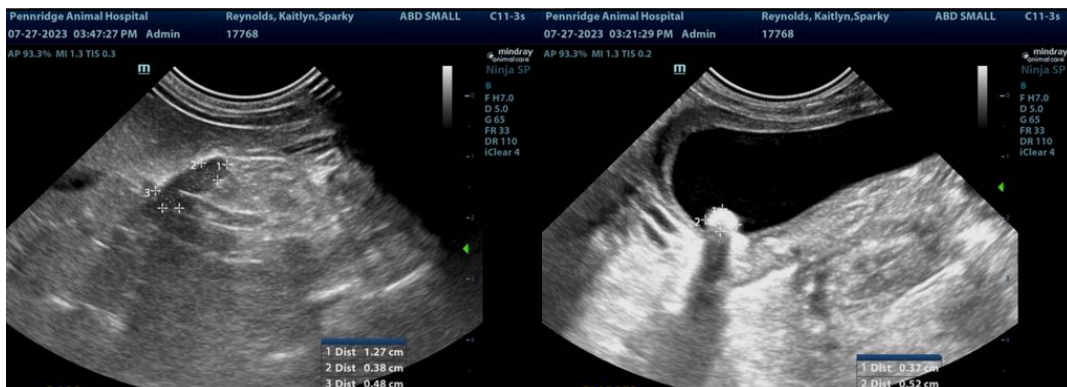
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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