



PATIENT PRESENTING CLINICAL SIGNS

Sophie Perdick
SPECIES Canine
BREED Shih Tzu

History: several year history of reported PU/PD (but also history of Calcium Oxalate cystolithiasis (cystotomy 3/2019) and is on RC SO diet, steadily increasing alkaline phosphatase with borderline high ACTH stim results. Patient was eventually start on trilostane but owner has not noticed a improvement on this medication and the patient's ALKP continues to rise therefore the owner has elected to discontinue this medication and is currently being weaned off of it.

Abnormal PE/Chem/CBC/UA Results: ALKP=271u/L (3/2019). 858 u/L (10/2019). 1024 u/L (12/2020). 1207 (10/2021). 2043 u/L (6/2022).. ACTH Stim results: Pre 3.7ug/dl Post 19.8 ug/dl (2/21)... Pre 12.1 ug/dl Post 18.9 ug/dl (11/21).. Pre 4.4 ug/dl Post 5.7 ug/dl (12/21)..... P currently on trilostane but currently weaning dose. Potassium citrate 5 mEq PO BID, and RC SO diet.

ULTRASONOGRAPHIC EXAM

SEX *Urinary System*

Spayed Female
AGE 8 years

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. The ureters were not visible which is normal. Sand accumulation was noted and measured 1.5 cm. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

WEIGHT 27.7 lbs

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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 4.76 cm with a hyperechoic medullary rim sign noted owing to corticomedullary mineralization. The left kidney measured 4.53 cm.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jessica Green

HOSPITAL NAME

Stanglein VC

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31034

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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 1.49 x 1.59 cm. The right adrenal gland measured 1.75 x 0.78 cm.

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** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive



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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.

SPECIES

Canine

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.

BREED

Shih Tzu

SEX

Spayed Female

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.

AGE

8 years

ULTRASONOGRAPHIC FINDINGS

WEIGHT

27.7 lbs

Benign hepatopathy. This may be breed specific.

Structurally normal adrenal glands.

Moderate degenerative renal changes with medullary rim sign and bladder sand.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

PDH is still a potential in this patient. I recommend gauging the necessity of Trilostane more on elevated urine cortisol to creatinine ratios and isosthenuria. The bladder sand may be able to be liberated in this patient on its own as no large calculi were present.

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For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://sonopath.com). You can select the internal medicine drop down at <http://spa.sonopath.com/>.

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One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

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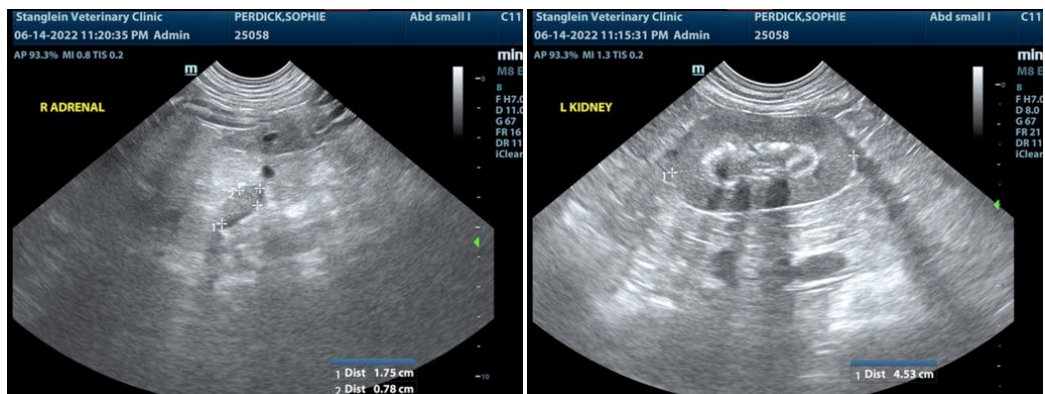
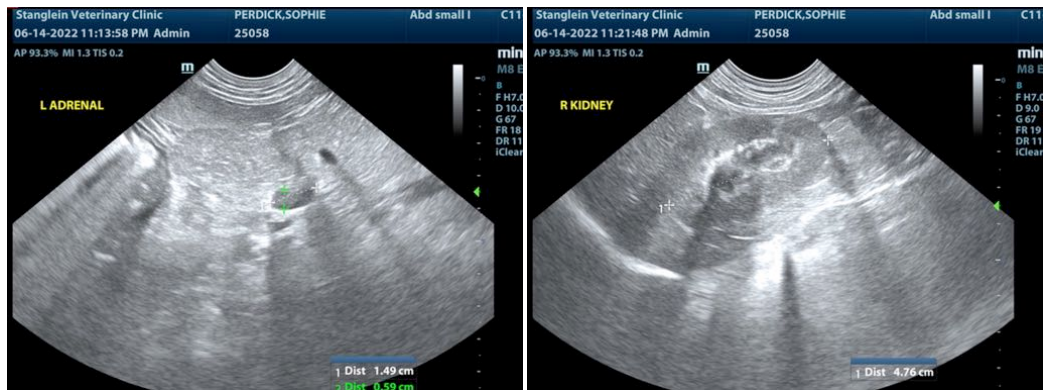
Spayed Female

AGE

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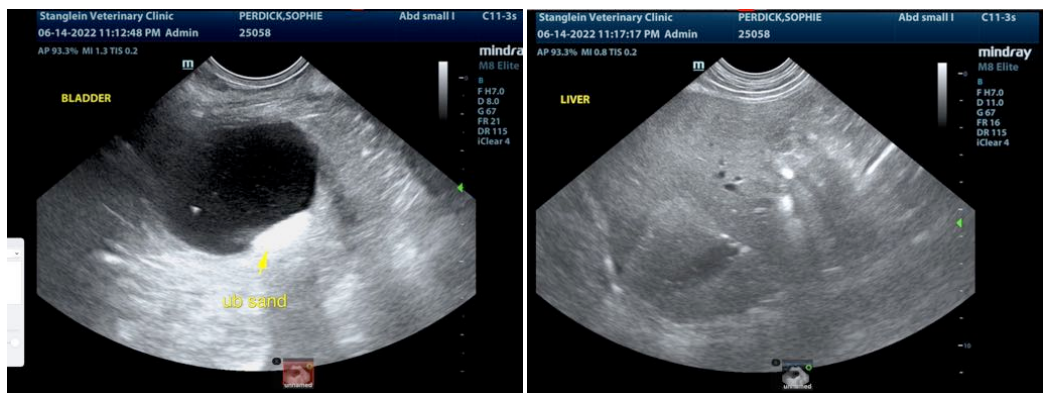
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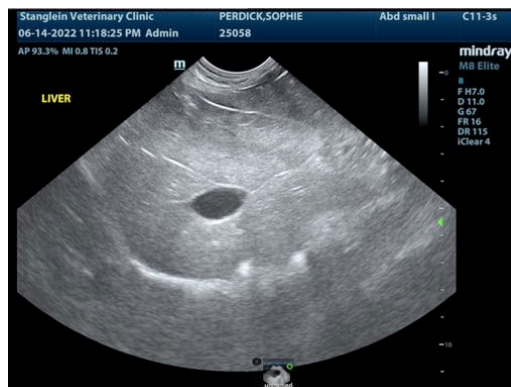
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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