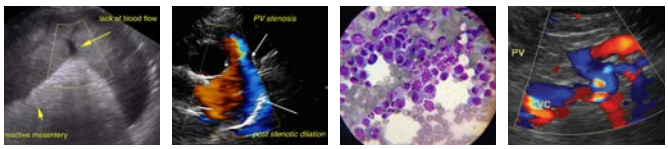
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Chico Eid

SPECIES
Canine

BREED
Shih Tzu

SEX
Neutered Male

AGE
11 Years

WEIGHT
4.25 kg

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
JSS

HOSPITAL NAME
King Hopkins Pet Hospital

REFERRING VET
Dr. Tamara Dzikewicz

INVOICE
38107

DATE
5/31/22

PRESENTING CLINICAL SIGNS

Chico is an 11-12 y/o MN Shorkie who presented for the reoccurring issues of urinary incontinence, decreased activity / energy, decreased appetite, etc. These current changes have been ongoing for the past 2-3 days, but he had the same concerns back in January / February, where he underwent an abdominal US to further investigate. At that time, it was reported that he was straining when he tried to urinate and blood was noted, and he was found to have ureteral/kidney stones and a thickened bladder wall. Gabapentin and Prazosin were prescribed and O found that this really helped. He was also started on Urinary food and he does still eat it. O has him wear a diaper at all times when he is in the house because he dribbles urine everywhere. In the past few days he may also be straining to urinate again. He is not his usual, active self and O is worried that something has changed. there has been mild-moderate vomiting as well.
Abnormal PE/Chem/CBC/UA Results: Weight loss since last visit, BCS 5-6/9 Thoracic auscultation revealed a murmur that O was not aware of, Grade II-III - He does cough from what they believe is a collapsing trachea, no more than normal CBC - mild thrombocytosis CHEM - mild hyperglycemia, marked increased in SDMA, CREA, UREA, and P, mild increase in lipase, mild hyponatremia and hypochloremia, low T4 (euthyroid vs hypoT).

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly distended with anechoic urine. The Bladder wall is diffusely thickened and irregular, measuring at 0.40 cm. There are focal hyperechoic densities possibly consistent with stones at both ureteral papillae, measuring 0.39 cm and 0.36 cm. Alternately, this could represent focal mineralization, etc.

The area of the prostate is visualized, and there is suspicion of a relatively normal sized prostate at 0.91 cm with evidence of mineralization. This mineralization could be present within the parenchyma, or could represent a stone within the prostatic urethra.

The left kidney is normal in size. It is irregular in shape and has evidence of early hydronephrosis with a renal pelvis measuring 1.4 cm. There is the suggestion of a dilated proximal ureter, but his is not clearly visualized. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion.

The right kidney has a normal shape and size (4.26 cm). The right kidney is hydronephrotic with a renal pelvic measuring 2.26 cm. The ureter is not clearly visualized. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion.

Adrenal Glands

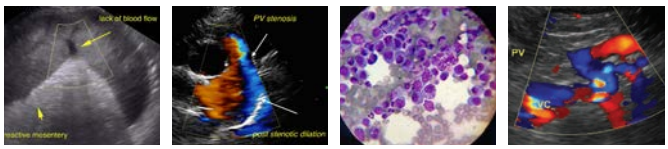
The left adrenal gland is normal in size measuring 0.69 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.62 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT
Chico Eid

SPECIES
Canine

BREED
Shih Tzu

SEX
Neutered Male

AGE
11 Years

WEIGHT
4.25 kg

INTERPRETED BY
Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY
JSS

HOSPITAL NAME
King Hopkins Pet Hospital

REFERRING VET
Dr. Tamara Dzikewicz

INVOICE
38107

DATE
5/31/22

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris. There is a large amount of primarily non-organized echogenic debris and what appears to be early gallbladder polyps. There is no evidence of bile duct dilation.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Jejunum wall measured 0.25 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

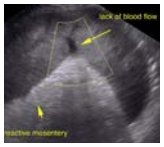
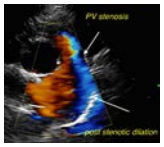
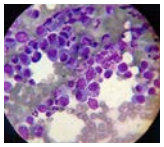
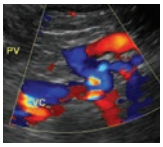
Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Bilaterally hydronephrotic kidneys (right worse than left) with the possibility of distal ureteral stones(?). It is not 100% clear if these mineralizations represent distal ureteral stones, but obstruction seems likely (chronic versus acute?).
- Thick, irregular urinary bladder wall – findings are most consistent with diffuse cystitis and urolithiasis. Recommend urinalysis and culture.
- Mineralization evident in the region of the prostate – This could represent prostatic mineralization or a stone in the prostatic urethra.
- Heterogeneous liver – The hepatic changes are consistent with age-related parenchymal remodeling and are not considered clinically significant at this time.
- Large gallbladder debris with gallbladder polyps – Findings could be consistent with cholecystitis and moderate gallbladder disease. Consider starting Ursodiol and close continued monitoring.

SonoPath
Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Chico Eid

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

11 Years

WEIGHT

4.25 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

JSS

HOSPITAL NAME

King Hopkins Pet Hospital

REFERRING VET

Dr. Tamara Dzikewicz

INVOICE

38107

DATE

5/31/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

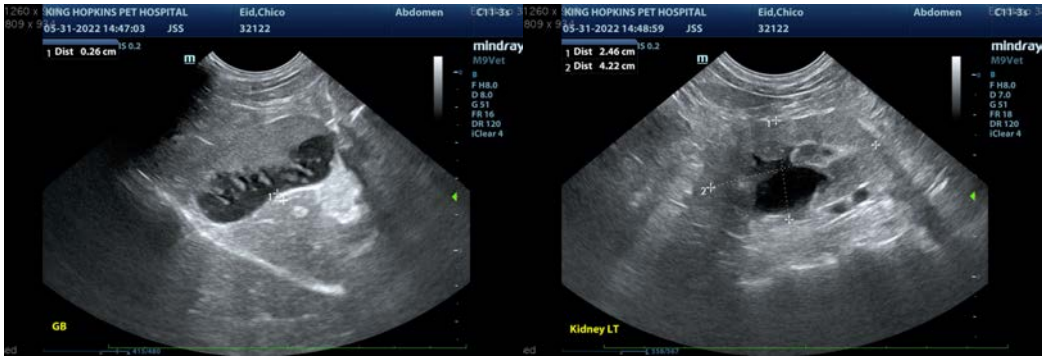
Both kidneys are significantly dilated and have evidence of early hydronephrosis. Compare these findings to previous scan. The ureters are not clearly visualized, and there are no stones evident in the kidneys, so it is not clear if this is due to infection, progressive obstruction, etc.

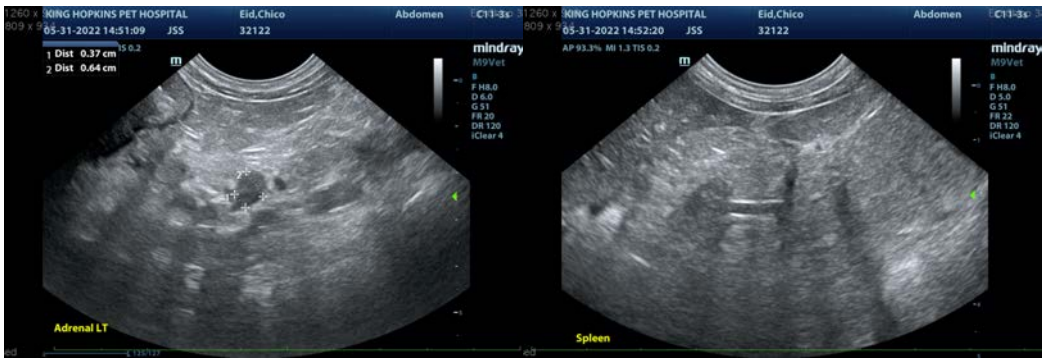
Additionally, the urinary bladder is irregular and thickened, and there are mineralizations evident along the wall, which could be consistent with distal ureteral stones, and there is mineralization visualized in the region of the prostate, which could represent mineralization of the parenchyma or even a stone in the prostatic urethra. Correlate these findings with abdominal radiographs, urinalysis and culture. Ideally, a contrast CT scan would be performed to determine where these mineralizations are definitively, and if intervention could be considered (surgery, ureteral bypass, etc.).

Recommend treatment for pyelonephritis, and diuresis if significant azotemia is present. It is somewhat difficult to determine what represents a chronic lesion and what is an acute lesion. Pain medication, nausea medications, etc. would be appropriate therapy as well as fluid therapy and close continued monitoring for progression of these lesions. Catheterization of the urethra could be helpful in determining if the mineralization within the prostate is intraparenchymal or within the urethra.

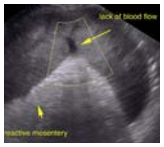
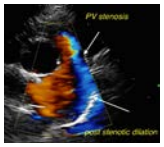
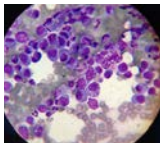
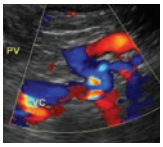
The gallbladder appears to have a large amount of debris with some early polypoid features that could be consistent with cholecystitis. Correlate these findings with bloodwork results. Consider starting Ursodiol +/- a course of antibiotics.

This dog still has a reasonable amount of renal parenchyma, but if chronic obstruction or acute obstruction progresses, this could diminish and become irreversible. Recommend pursuing efforts to obtain more information on the current situation.





SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Chico Eid

SPECIES

Canine

BREED

Shih Tzu

SEX

Neutered Male

AGE

11 Years

WEIGHT

4.25 kg

INTERPRETED BY

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)

IMAGING PERFORMED BY

JSS

HOSPITAL NAME

King Hopkins Pet Hospital

REFERRING VET

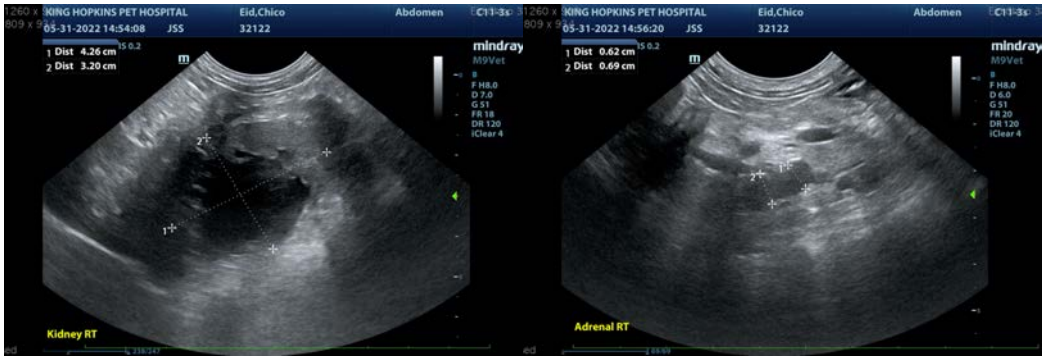
Dr. Tamara Dzikewicz

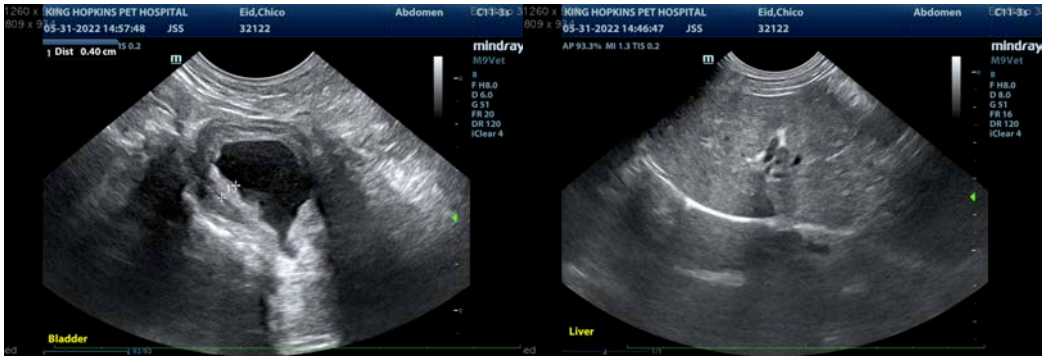
INVOICE

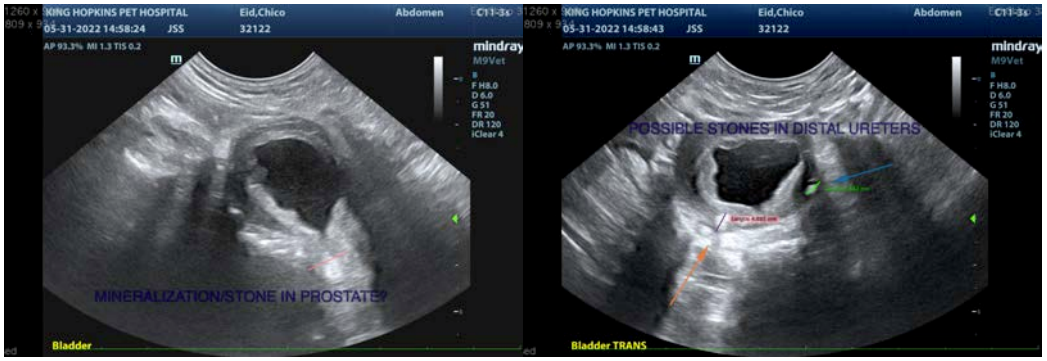
38107

DATE

5/31/22







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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

kathleen.sennello@sonopath.com