

**DATE PRESENTING CLINICAL SIGNS**

9/21/22

Leaking urine at night (nre finding). Occurs while sleeping, no other times. PU/PD. Azotemia (IRIS 2/4), proteinuria.

PATIENT

Xoe Retalliata

Current Medications: None at this time.

Lab Results: SDMA 17 (0-14), Crea 1.9 (0.5-1.5), BUN/UREA 50 (9-31), Glob 4.4 (2.4-4.0), SP Gravity 1.016, K & P WNL, U Pro/Crea 1.2, 4dx neg. Owner to drop off fecal sample. In-house urine culture negative/no growth.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Toy Manchester Terrier

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

AGE

6/25/08

The left kidney has a normal shape and size (3.24 cm) with pyelectasia at 0.32 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

9.8 Pounds

The right kidney has a normal shape and size (3.59 cm) with mild pyelectasia at 0.28 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is borderline large measuring 0.64 cm at the cranial pole, 1.0 cm at the caudal pole, and 1.6 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that it is hypoechoic and "plump" with an enlarged homogeneous caudal pole. There is no evidence of vascular invasion visualized. Findings are most consistent with a large/plump left adrenal gland or an early mass lesion.

IMAGING PERFORMED BY

Stephanie Warga
RDCS, RVT

The right adrenal gland is normal in size measuring 0.72 cm at the cranial pole, 0.63 cm at the caudal pole, and 1.66 cm in length. 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.

HOSPITAL NAME

Frederick Road VH

REFERRING VET

Dr. Beyer

Spleen

The spleen is subjectively normal in size (0.91 cm in width at the level of the hilus), 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.

INVOICE

41492

Liver

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

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

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. Duodenum wall measures 0.37 cm. Jejunum wall measures 0.31 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 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

- Borderline enlarged/plump left adrenal gland – This adrenal gland appears large for this size of a dog and is slightly larger than the right adrenal gland. This could represent normal variation, bilateral hypertrophy, or an early left-sided mass lesion (adenoma, carcinoma, pheochromocytoma, etc.).
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

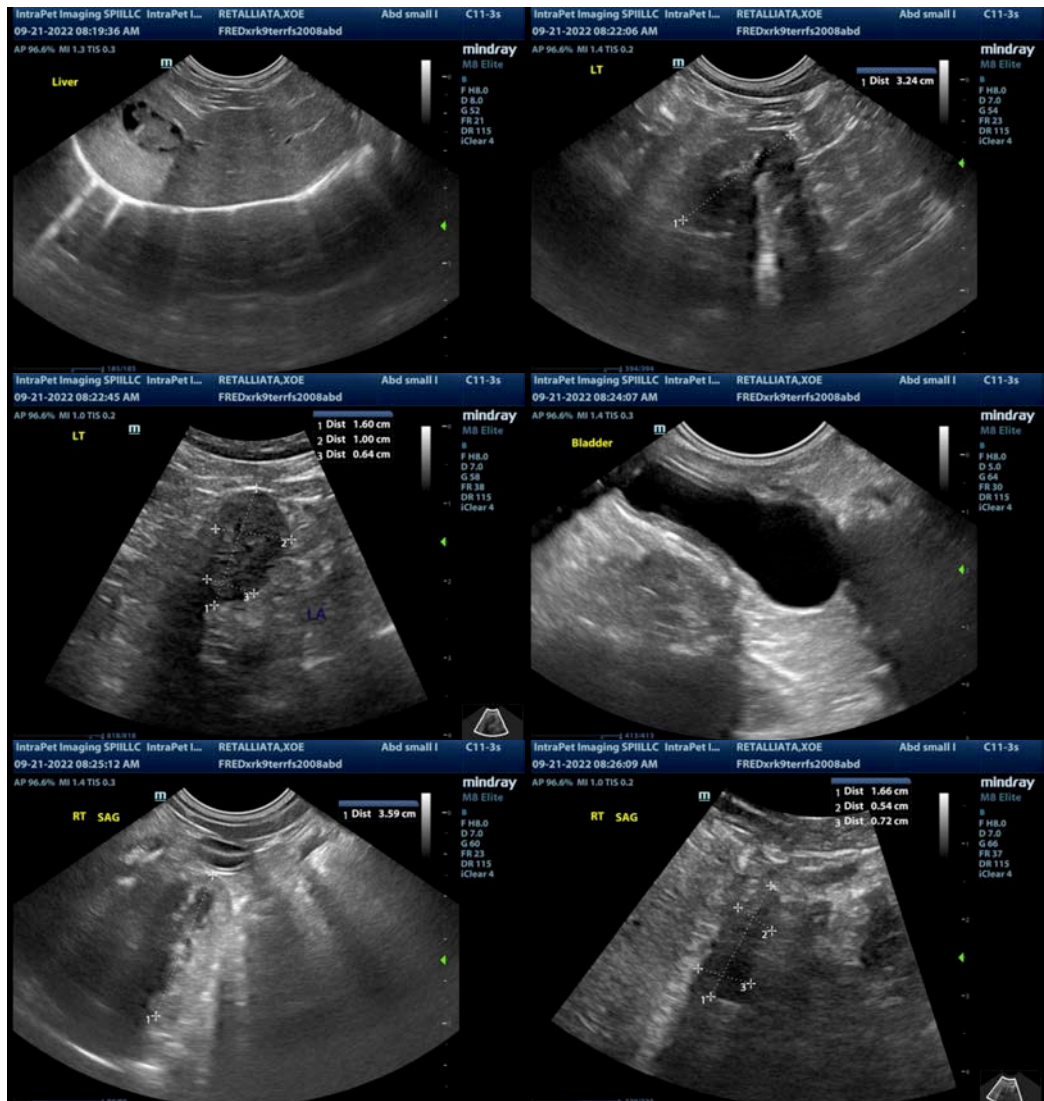
The changes observed in the kidneys are most consistent with chronic progressive renal disease and likely PU/PD. No obstructive process is visualized and your recent urine culture was negative. If this correlates with a normal/inactive sediment on urinalysis, an infection is less likely. Recommend a blood pressure evaluation for a baseline.

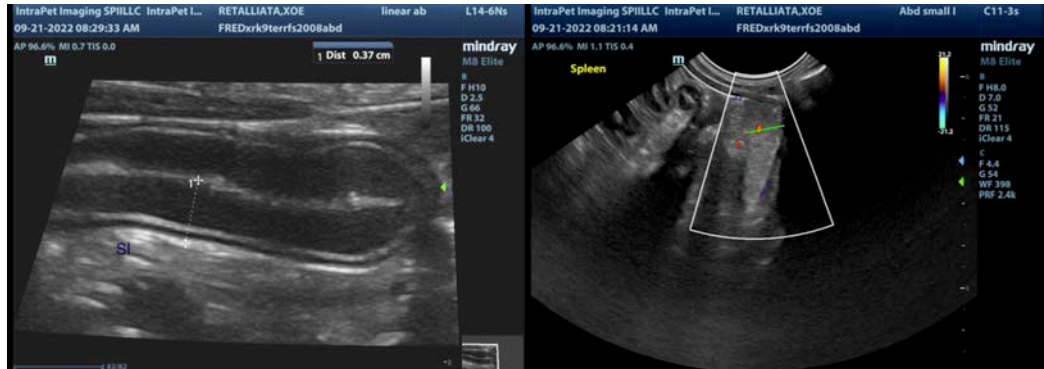
The left adrenal gland appears somewhat plump and is hypoechoic. This is moderately larger than the right adrenal gland. The significance of this is unclear. This could represent an early mass lesion, bilateral

hyperplasia (with the left side slightly larger than the right) or could be an incidental finding. Recommend a blood pressure evaluation. If there is hypertension present, you could evaluate catecholamine levels to look for evidence of a pheochromocytoma. Otherwise, if there are symptoms consistent with Cushing's present (other than PU/PD), you could consider adrenal function testing. Additionally, I would recommend continued monitoring of the left adrenal gland with ultrasound.

No lesions are visualized associated with the urinary bladder to explain the nighttime incontinence described. This may be overload incontinence secondary to the PU/PD(?).

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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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