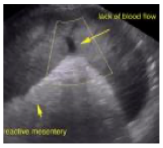
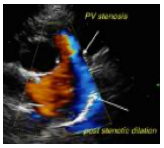
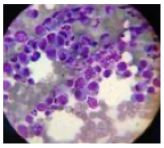
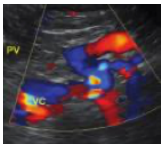
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Roma Leo

SPECIES

Canine

BREED

Mix

SEX

Female Spayed

AGE

12 years

WEIGHT

25.1 lbs

INTERPRETED BY

Jessica Midence, DVM, DACVIM (SAIM)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Westwood Reg VH

REFERRING VET

Dr. Hartwick

INVOICE

12823

DATE

4.21.23

PRESENTING CLINICAL SIGNS

History: Azotemia noted on pre-dental screen 3/17/23 despite K/D, Azodyl . Progressive elevation on 4/17/23, P eating, no v/d & BAR!. Suspect HTN. Severe PPDZ, Hx of mammary Ca-chemo (unknown chemo type) BP's 280/205; 273/124; 220/124; 161/101. Current meds: K/D diet, IVF, Famotidine, Azodyl, Unasyn, added Benazepril 0.5mg/kg sid on 4/20 pm.

Abnormal PE/Chem/CBC/UA Results: 3/17/23-Bun 79, Cr 3.1, Phos 4.8 (k/d, pepcid, azodyl); 4/17/23-Bun 112, Cr 4.7, Phos 6.1-admit for IVF diuresis (recheck after 24 hours 4/20)-Bun 45, Cr 1.9, Phos 4.5, U/A-3/21 Prot-trace; wbc 2-4/hpf; sed-neg. ; Urine c&S -neg. USG 1.014

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder mucosa, trigone, and visible urethra are normal in thickness and there is no evidence of mucosal irregularities. The bladder lumen is markedly distended with anechoic urine and bladder thickness is considered normal for volume of urine.

The left kidney is small in size (4.77 cm) and is severely misshapen; and the parenchyma is diffusely abnormal as well. There is decreased corticomedullary distinction, though there is still some present. At the caudal pole there is a nodule (0.94 cm x 0.79 cm) that could be a complex cortical cyst, as it has some anechoic areas (mixed with hyperechoic areas). The retroperitoneal fat surrounding the kidney is mildly hyperechoic. There is no evidence of pyelectasia, nephroliths, or hydroureter.

The right kidney is small in size (4.37 cm) and is severely misshapen with abnormal-looking parenchyma. There is decreased corticomedullary distinction; and the cortex is mildly hyperechoic. There is a small anechoic cortical cyst. The retroperitoneal fat surrounding the kidney is moderately hyperechoic and almost nodular-looking. There is no evidence of pyelectasia, nephroliths, or hydroureter.

Adrenal Glands

The left adrenal gland is normal in size (cranial pole 0.53 cm / caudal pole 0.63 cm). The left adrenal gland has normal in shape and is normal in appearance and echogenicity.

The right adrenal gland is normal in size at (cranial pole 0.77 cm / caudal pole 0.70 cm). The right adrenal gland has normal shape and it is normal in appearance and echogenicity.

Spleen

The splenic echotexture is homogeneous with parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule is smooth with no irregularities. The splenic vasculature is normal without signs of congestion or thrombosis.

Liver

The liver is subjectively normal in size with normal contours, structure, with smooth peripheral margins. The echogenicity appears normal with normal portal markings. No overt evidence of inflammatory, infiltrative or regenerative pathology is evident. The visible portions of the vasculature and biliary tract appear normal. No pathological hepatic lymphadenopathy observed.

The gallbladder is significantly distended. There is a large volume of hyperechoic, nondependent organizing debris. The wall is a normal thickness and smooth. The cystic and common bile ducts are normal/not visible.

Gastrointestinal Tract

The gastric lumen is empty. The stomach wall is of normal wall thickness with some variability due to rugal folds. There is normal gastric wall layering. There are no masses or focal lesions observed and the pyloric outflow tract appears normal.

The visualized areas of jejunum and ileum appear normal in thickness. The duodenum however, is thicken (0.66 cm) with distinct wall layering and slight corrugation. The remainder of the small intestines measures within normal limits and has normal wall layering. The lumen of the rest of the small intestine was empty with no signs of ileus, obstruction or foreign material. No focal lesions observed.

The sections of colon are visualized with formed fecal material and gas shadowing distally.

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. The visible pancreatic duct was normal.

Peritoneum

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The omentum is of normal uniform echogenicity.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Acute on chronic kidney disease with left cortical renal nodule
- Emerging/forming gall bladder mucocele

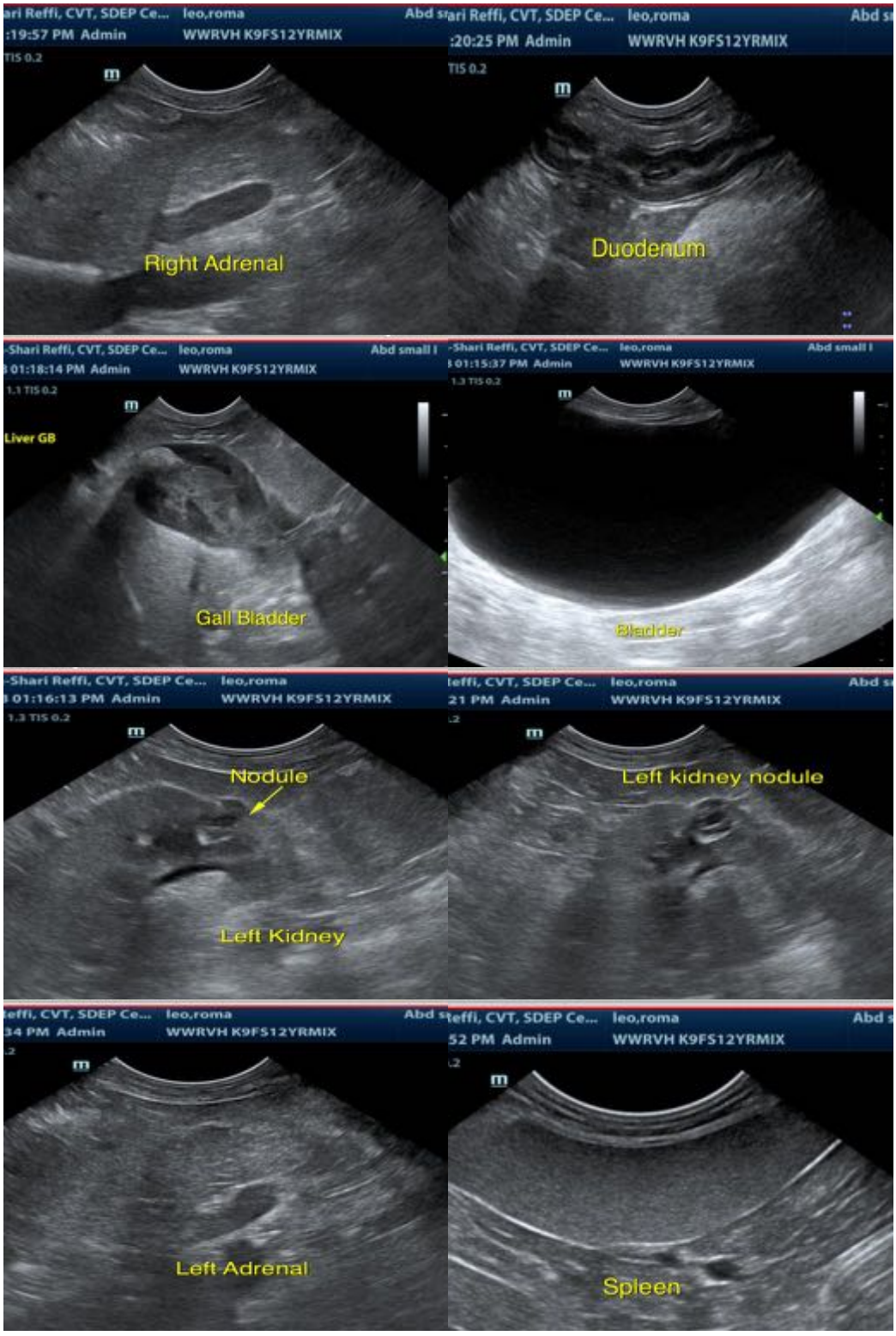
Secondary Findings

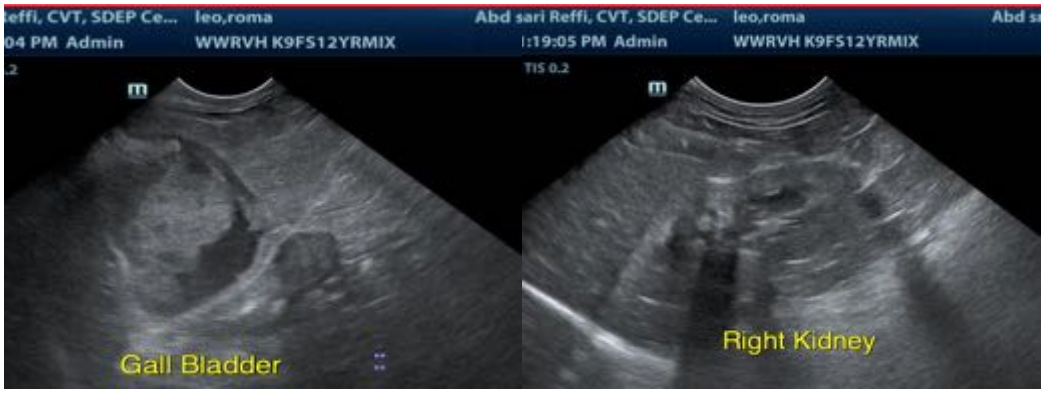
- Mild duodenitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The chronic changes to the kidneys are significant. While there is still some corticomedullary definition, the kidneys are significantly misshapen and abnormal in appearance. There is inflamed tissue/fat surrounding the kidneys (the right worse than the left) and is consistent with acute nephritis of any cause (e.g., infectious, toxin, immune-mediated, inflammatory, etc.). The left kidney has a slightly complex nodule which might be a complex cyst, but fine-needle aspiration is recommended to evaluate further. Alternatively, a repeat ultrasound could be considered in 4-6 months to monitor growth or change of this nodule. Continue to treat for acute kidney injury with followed-up ongoing treatment for chronic kidney diseases (such as blood pressure control, dietary modification, phosphorus binders, subcutaneous fluids, etc.).

The gall bladder has a significant amount of debris that is starting to organized. While this is not yet a fulminant mucocele, one is forming. Consider Ursodiol (if not contraindicated in this patient).


Right Adrenal
Duodenum
Liver GB
Gall Bladder
Bladder
Nodule
Left Kidney
Left kidney nodule
Left Adrenal
Spleen



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.

Jessica Midence, DVM, DACVIM (SAIM)
info@SonoPath.com