



**PATIENT PRESENTING CLINICAL SIGNS**

**Remi Fleming** History: Presented to a veterinary clinic in Hamilton for vomiting and diarrhea on October 10th. Declined hospitalization there, was sent home with medications. Continued care at rDVM in Thorold with IVF, IV medication. Very jaundiced. meds: Baytril, metronidazole, zentonil, aventi-kidney

**SPECIES**

**Canine** Abnormal PE/Chem/CBC/UA Results: Bloodwork from October 10th Azotemia; creatinine 277 (44-159), urea 16.9 (2.5-9.6) ALT 213 (10-125) ALP 685 (23-212) TBil 171 (<15) Cholesterol 8.81 (2.84-8.26) Hyponatremia 132

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Shep X** *Urinary System*

The **urinary bladder** wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. A small to moderate amount of suspended, echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**SEX**

Spayed Female

**AGE**

7 years

The **left kidney** is normal size (7.14 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. A small amount of retroperitoneal fluid is visualized.

**WEIGHT**

32.8 kg

The **right kidney** is normal size (7.16 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal. A small amount of retroperitoneal fluid is visualized.

*Adrenal Glands*

The **left adrenal gland** is normal size (0.45 cm at cranial pole) (0.67 cm at caudal pole) (2.34 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The **right adrenal gland** is normal size (1.43 cm at cranial pole) (0.62 cm at caudal pole) (3.09 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Kelly Reschny

*Spleen*

The **spleen** is normal in size (2.20 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is observed throughout the organ. No focal lesions are observed. Splenic vasculature is normal.

**HOSPITAL NAME**

Niagara Vet Emerg  
Clinic

*Liver*

The **liver** is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative, or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

**REFERRING VET**

Dr. Lawton

The **gall bladder** lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated, echogenic, partially dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**INVOICE**

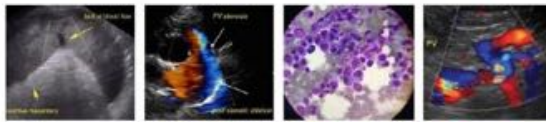
11831

*Gastrointestinal*

The **stomach and intestine** are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is

**DATE**

10.14.22



**PATIENT**

normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Remi Fleming

**Pancreas**

The **pancreas** is normal in size with normal peripheral contours. The pancreatic duct is normal. The base and limbs of the pancreas are isoechoic to surrounding omental fat. No focal lesions are observed. There is no evidence of peripancreatic inflammation or effusion.

**SPECIES**

Canine

**Free Abdomen**

An area of mesentery within the midabdominal region is mildly hyperechoic/reactive. The abdominal **lymph nodes** are normal/not visible.

**BREED**

Shep X

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- The presence of retroperitoneal fluid in the reactive mesentery in the midabdominal region is suggestive of retroperitonitis, likely secondary to microscopic renal disease.

\*An obvious cause for the patient's clinical signs is not identified in this study. However, based on the clinical history, Leptospirosis is the top differential.

**SEX**

Spayed Female

**AGE**

7 years

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Leptospirosis testing (i.e., blood and urine PCR, serology) is recommended.

**WEIGHT**

32.8 kg

Given the azotemia, a urine culture and sensitivity, UPC (if proteinuria is present) and a baseline blood pressure measurement should also be considered.

While awaiting test results, continued IV fluid diuresis and empirical treatment for Leptospirosis (i.e., amoxicillin-clavulanic acid) are recommended. If the patient does not respond to supportive care, hepatic +/- renal tissue sampling may be warranted.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Niagara Vet Emerg  
Clinic

**REFERRING VET**

Dr. Lawton

**INVOICE**

11831

**DATE**

10.14.22





**PATIENT**

Remi Fleming

**SPECIES**

Canine

**BREED**

Shep X

**SEX**

Spayed Female

**AGE**

7 years

**WEIGHT**

32.8 kg

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING  
PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Niagara Vet Emerg  
Clinic

**REFERRING VET**

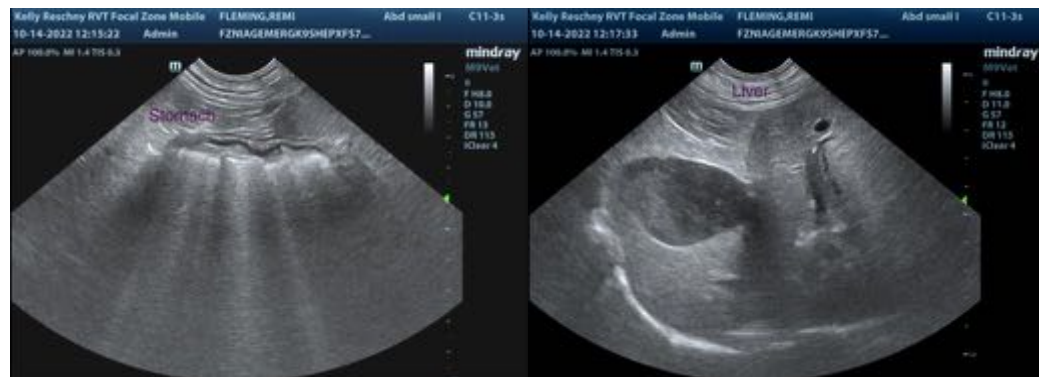
Dr. Lawton

**INVOICE**

11831

**DATE**

10.14.22



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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
info@SonoPath.com