



**PATIENT**

Leia Brousseau

**SPECIES**

Canine

**BREED**

Rat Terrier

**SEX**

Spayed Female

**AGE**

5

**WEIGHT**

8.2 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Brian Barnes

**HOSPITAL NAME**

Westview Vet Hospital

**REFERRING VET**

Dr. Brian Barnes

**INVOICE**

46618

**DATE**

4/12/23

**PRESENTING CLINICAL SIGNS**

Last summer noted a small amount of blood on the bed sheets. Had a U/A run at that time and had hematuria and a very concentrated urine sample, small amount of blood present but quiet sediment. Noted repeat blood on the bedding again June 2022 July 2022 Nov 2022 Dec 2022 Mar 2023 Owner has been occasionally seeing a small spots of blood on the bedding

Abnormal PE/Chem/CBC/UA Results: CBC: Retic 142 (N 10-110) Chem: WNL SDMA 7 (N 0-14) TT4 37 (N 13-51) In for dental and AUS done at the same time. A/G full brown tan watery exudate, vulva looks normal

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (4.15 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

The left kidney is normal in size (4.44 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed. A hyperechoic band parallel to the corticomedullary border is present.

**Adrenal Glands**

The right adrenal gland is normal in size (2.11 cm long x 0.36 cm at the cranial pole and 0.45 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (1.9 cm long x 0.34 cm at the cranial pole and 0.49 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.



**PATIENT**

Leia Brousseau

**SPECIES**

Canine

**BREED**

Rat Terrier

**SEX**

Spayed Female

**AGE**

5

**WEIGHT**

8.2 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Brian Barnes

**HOSPITAL NAME**

Westview Vet Hospital

**REFERRING VET**

Dr. Brian Barnes

**INVOICE**

46618

**DATE**

4/12/23

**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**Free Abdomen**

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**ULTRASONOGRAPHIC FINDINGS**

- **Bilateral medullary rim sign** - This finding is of unknown clinical significance and can be a normal variant, often idiopathic. Medullary rim sign can be present with renal disease including FIP, lymphoma, hypercalcemic nephropathy, Leptospirosis, tubular disease, other and should be interpreted in combination with other more specific indications of kidney disease such as isosthenuria, proteinuria, azotemia, etc. This is a common incidental finding in patients with diabetes mellitus.
- Otherwise, this is a relatively unremarkable/normal abdomen without an obvious ultrasonographic explanation for the patient's recurrent spotting.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If not recently evaluated, full assessment of this patient's coagulation status is recommended.

Recheck urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended. \*\*Both a cystocentesis obtained sample as well as a free catch sample for comparison and possibly better localization of the blood may be helpful.

Ultimately, if a diagnosis is not made, vaginoscopy/cystoscopy may be warranted if the blood has been localized to the genital or urinary tract. Prior to that, if not already evaluated, a rectal exam to rule out the gastrointestinal tract is recommended.



**PATIENT**

Leia Brousseau

**SPECIES**

Canine

**BREED**

Rat Terrier

**SEX**

Spayed Female

**AGE**

5

**WEIGHT**

8.2 kg

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Dr. Brian Barnes

**HOSPITAL NAME**

Westview Vet Hospital

**REFERRING VET**

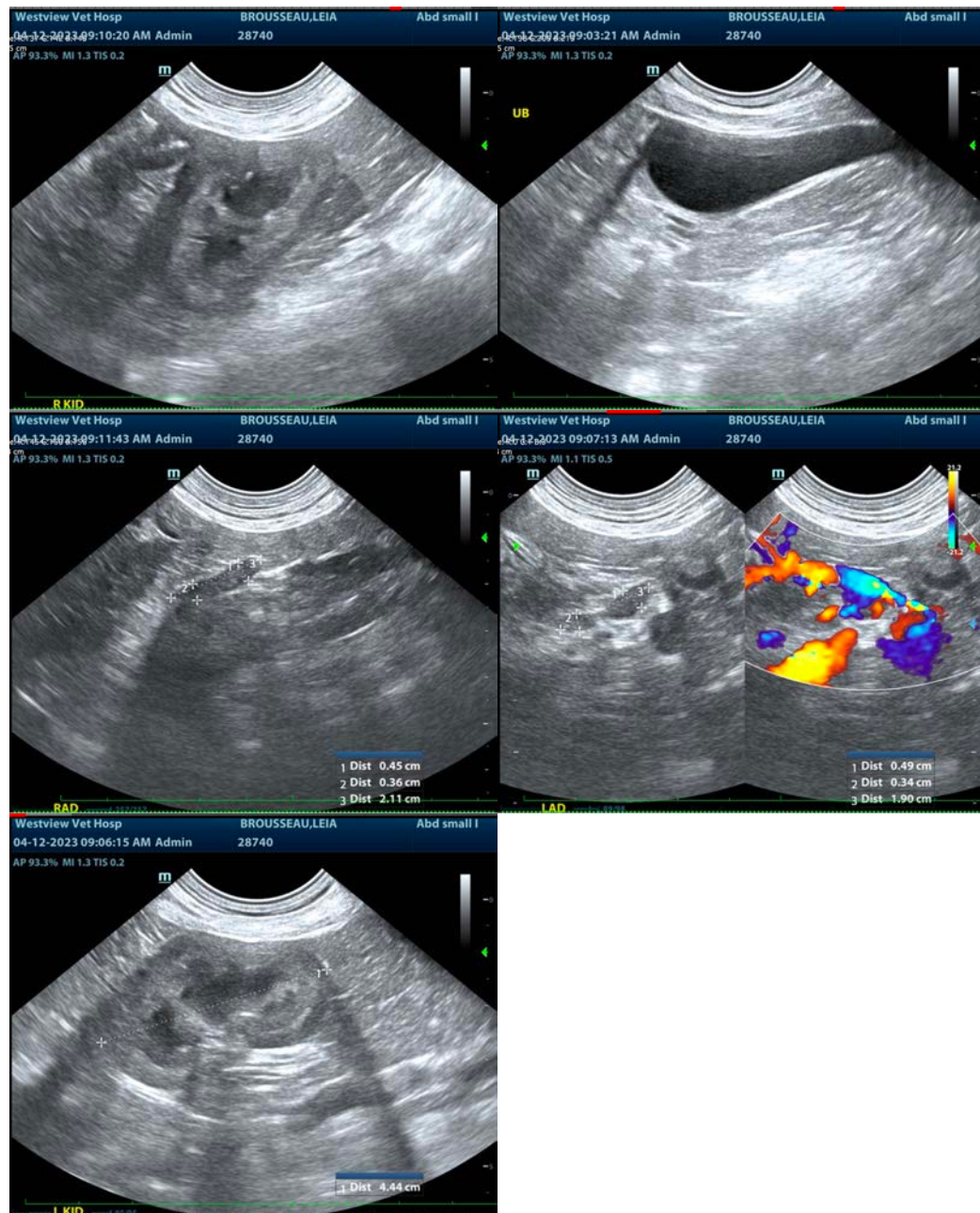
Dr. Brian Barnes

**INVOICE**

46618

**DATE**

4/12/23



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.

**Beth Johnson, DVM, DACVIM**  
Beth.Johnson@sonopath.com