



**PATIENT**

Anna Dower

**SPECIES**

Canine

**BREED**

Spring Spaniel X

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

37 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Heather

**HOSPITAL NAME**

ACC Flanders

**REFERRING VET**

Dr. Hallihan

**INVOICE**

46744

**DATE**

4/18/23

**PRESENTING CLINICAL SIGNS**

Hematuria, diarrhea on and off, weight loss

Abnormal PE/Chem/CBC/UA Results: BUN - > 50 (hi), Gluc - 64 (lo) - rechecked BG today - 110, platelet count - 563 (hi) trans. epi. 2-3 (hi)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with a large amount of echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Additionally, there is a large amount of mineral/sand debris and several suspect cystoliths versus clumps of aggregated mineral/sand. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (5.49 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.

The left kidney is normal in size (4.67 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 small cortical cyst is present.

**Adrenal Glands**

The right adrenal gland is normal in size (1.4 cm at the cranial pole and 0.68 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 (0.55 cm at the cranial pole and 0.55 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.



|                             |   |
|-----------------------------|---|
| <b>PATIENT</b>              | <b><i>Gastrointestinal</i></b>  |
| Anna Dower                  | 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.  |
| <b>SPECIES</b>              |   |
| Canine                      | 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. |
| <b>BREED</b>                |   |
| Spring Spaniel X            | The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.  |
| <b>SEX</b>                  |   |
| Spayed Female               | <b><i>Pancreas</i></b>  |
| <b>AGE</b>                  | 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.  |
| 11 Years                    |   |
| <b>WEIGHT</b>               | <b><i>Free Abdomen</i></b>  |
| 37 Pounds                   | There is no evidence of free peritoneal effusion noted in these images.   |
| <b>INTERPRETED BY</b>       | There is no apparent lymphadenopathy noted in these images.   |
| Beth Johnson, DVM<br>DACVIM | <b>PRIMARY FINDINGS</b>   |
|                             | <ul style="list-style-type: none"> <li>Large amount of urinary bladder debris including mineral debris/sand and suspect cystoliths</li> </ul>   |
|                             | <b>SECONDARY FINDINGS</b>   |
|                             | <ul style="list-style-type: none"> <li>Small cortical cyst in the left kidney</li> </ul>  |
| <b>IMAGING PERFORMED BY</b> | <b><u>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</u></b>  |
| Heather                     | If not very recently evaluated, a 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.  |
| <b>HOSPITAL NAME</b>        |   |
| ACC Flanders                | Pending results, obtaining samples of the urinary bladder mineral for analysis to help further dictate management is recommended and may be able to be obtained via a bladder flush or voiding urohydropropulsion.  |
| <b>REFERRING VET</b>        |   |
| Dr. Hallihan                | Given this patient's reported chronic intermittent diarrhea, next diagnostic recommendations include:   |
| <b>INVOICE</b>              | A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.   |
| 46744                       |   |
| <b>DATE</b>                 | A baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.   |
| 4/18/23                     | A fecal enteropathogen PCR panel to Texas A&M GI Laboratory could be considered for further evaluation of possible infectious disease.  |
|                             | Additionally, a fecal exam is recommended if not recently evaluated.  |
|                             | In the meantime, supportive/symptomatic medical management of clinical signs is recommended, including a probiotic (such as visbiome or proviable), empirical deworming with a 5-day course of  |



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Panacur and, if tolerated, a transition in diet, based on trial-and-error response, beginning with a hydrolyzed protein diet. Some patients respond to one brand/version of a hydrolyzed protein diet better than another brand, so several attempts may be required.

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Ultimately, if clinical signs persist, and a diagnosis is not reached, further evaluation of the GI tract via upper and lower endoscopy for visualization and biopsies may be warranted.

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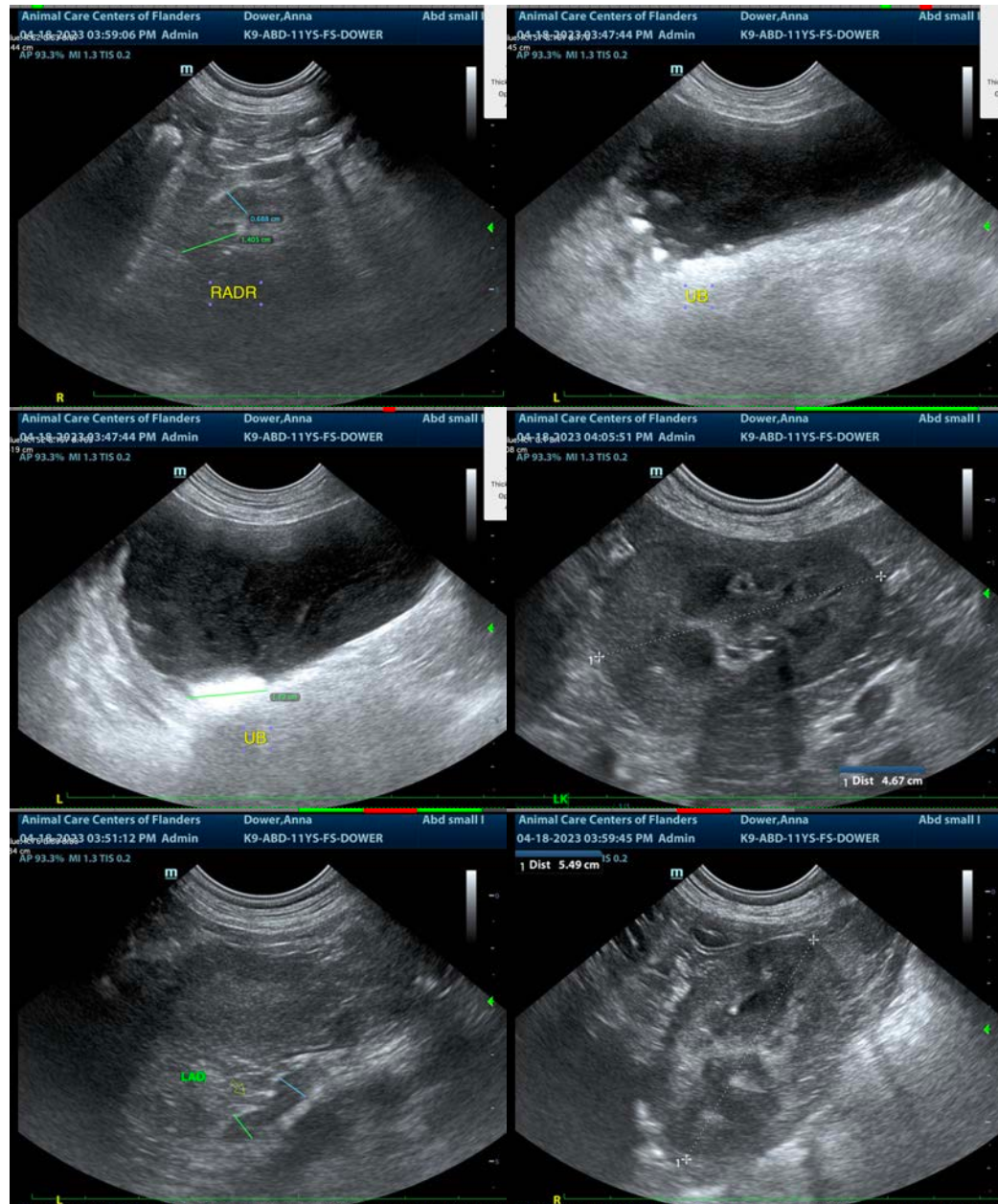
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

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

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