



## PATIENT

Piper Crocker

## SPECIES

Canine

## BREED

Boston Terrier

## SEX

Spayed Female

## AGE

4 Years

## WEIGHT

19 lbs

## INTERPRETED BY

Beth Johnson, DVM  
DACVIM

## IMAGING PERFORMED BY

Julia Bakker, DVM

## HOSPITAL NAME

Orange Blossom  
Veterinary Imaging

## REFERRING VET

Nicole Murphy, DVM

## INVOICE

72361

## DATE

1/21/26

## PRESENTING CLINICAL SIGNS

PU/PD. Diffuse alopecia and erythema. Minimal tartar, bottom incisors appear mobile

Urinalysis: hyposthenuria with proteinuria

Discussed that we could repeat BW to evaluate kidneys and liver again since evaluated in December. Discussed no evidence of UTI. Recommend next step of being abdominal US to evaluate PU/PD

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### Urinary System

The urinary bladder is adequately 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 is size (5.0 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 is size (4.48 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.

### Adrenal Glands

Adrenal glands are mildly plump for a small dog. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. Left measures 0.61 cm at the cranial pole and 0.81 cm. Right measures 1.2 cm at the cranial pole and 0.68 cm at the caudal pole.

### 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

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mildly heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### Gastrointestinal

The visible stomach wall is normal in thickness and layering. The stomach is moderately distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. If patient was appropriately fasted,



## PATIENT

Piper Crocker

## SPECIES

Canine

## BREED

Boston Terrier

## SEX

Spayed Female

## AGE

4 Years

## WEIGHT

19 lbs

## INTERPRETED BY

Beth Johnson, DVM  
DACVIM

## IMAGING PERFORMED BY

Julia Bakker, DVM

## HOSPITAL NAME

Orange Blossom  
Veterinary Imaging

## REFERRING VET

Nicole Murphy, DVM

## INVOICE

72361

## DATE

1/21/26

delayed gastric emptying could be considered. Non-shadowing foreign material is considered less likely but cannot be definitively ruled out.

If clinical signs are consistent (vomiting, etc.), recommendations include supportive medical care, 24 hours fasting and re-image.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta/chyme. There is 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 area of the pancreas contains irregular hyperechoic pancreatic remodeling.

### **Free Abdomen**

There is no visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

## **ULTRASONOGRAPHIC FINDINGS**

- Mild bilateral adrenomegaly – In a patient diagnosed with hyperadrenocorticism, this finding is most consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism. This finding can also be seen with stress and/or normal patient variant. Interpret in combination with clinical signs of hyperadrenocorticism and/or other adrenal disease.
- Hyperechoic pancreas – This finding is suggestive of pancreatic fibrosis, possibly secondary to chronic pancreatitis. A TLI is recommended to rule out exocrine pancreatic insufficiency (EPI), especially if clinical signs (weight loss, diarrhea, etc.) are present.
- Mildly heterogenous liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

While hyperadrenocorticism could be contributing to patient's ultrasound findings as well as clinical history, etc., it is atypical in a very young dog. Therefore, ruling out additional contributing factors to the PU/PD, proteinuria, etc. is recommended prior to pursuing hyperadrenocorticism. Given the pancreatic changes, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M



**PATIENT**

Piper Crocker

**SPECIES**

Canine

**BREED**

Boston Terrier

**SEX**

Spayed Female

**AGE**

4 Years

**WEIGHT**

19 lbs

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Julia Bakker, DVM

**HOSPITAL NAME**

Orange Blossom  
Veterinary Imaging

**REFERRING VET**

Nicole Murphy, DVM

**INVOICE**

72361

**DATE**

1/21/26

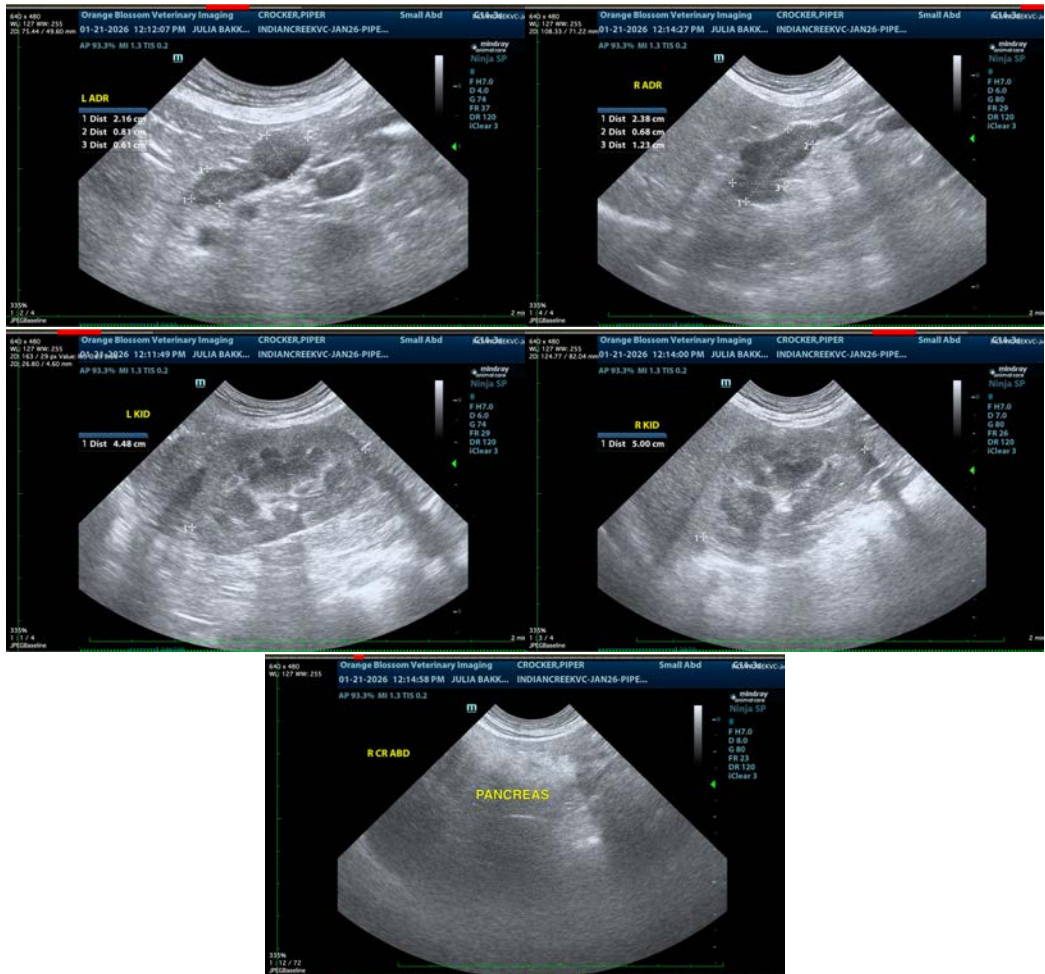
GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Confirmation of or reassessment of the proteinuria and quantification is warranted via a urinalysis and, if indicated based on urinalysis results, urine culture is recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

A blood pressure is also indicated.

Ruling out infectious disease including Leptospirosis, etc. is recommended.

If another cause is not diagnosed and clinical signs persist, a low-dose Dexamethasone suppression test could be considered.





## PATIENT

Piper Crocker

## SPECIES

Canine

## BREED

Boston Terrier

## SEX

Spayed Female

## AGE

4 Years

## WEIGHT

19 lbs

## INTERPRETED BY

Beth Johnson, DVM  
DACVIM

## IMAGING PERFORMED BY

Julia Bakker, DVM

## HOSPITAL NAME

Orange Blossom  
Veterinary Imaging

## REFERRING VET

Nicole Murphy, DVM

## INVOICE

72361

## DATE

1/21/26

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**  
info@sonopath.com