

**DATE PRESENTING CLINICAL SIGNS**

3/15/23 Blood in urine - repeatable (free catch samples). History of many/multiple mast cell.

PATIENT

Current Medications: Deramaxx, Dasuquin, Adequan, Completed course of Cefpodoxime (no changes in urine).

Vida Marzullo

Lab Results: Repeated RBC in free catch urine samples- treated with course of antibiotic (cefpodoxime).

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Patient had Gabapentin.

SPECIES

Stat Report: Not requested.

Canine

Imaging Performed By: Andi Parkinson, BS, RDMS.

BREED**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX****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.

Spayed Female

The right kidney is normal in size (7.17 cm), shape and echogenicity. It has smooth peripheral margination.

AGE

There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

11/4/11

The left kidney is normal in size (6.25 cm), shape and echogenicity. It has smooth peripheral margination.

WEIGHT

There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

59.7 Pounds

Adrenal Glands**INTERPRETED BY**

Adrenal glands are mildly plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 2.41 cm long x 0.72 cm at the cranial pole and 1.06 cm at the caudal pole. The left adrenal gland measures 2.26 cm long x 0.60 cm at the cranial pole and 0.76 cm at the caudal pole.

Beth Johnson, DVM
DACVIM

HOSPITAL NAME

Timonium AH

Spleen

The spleen is subjectively normal in size with a primarily normal smooth capsular contour except for the tail of the spleen, where there is a slight rounded heterogeneous bulge appearance. Parenchyma is otherwise 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.

REFERRING VET

Dr. McMichael

Liver**INVOICE**

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.

45929

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.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is 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.

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

ULTRASONOGRAPHIC FINDINGS

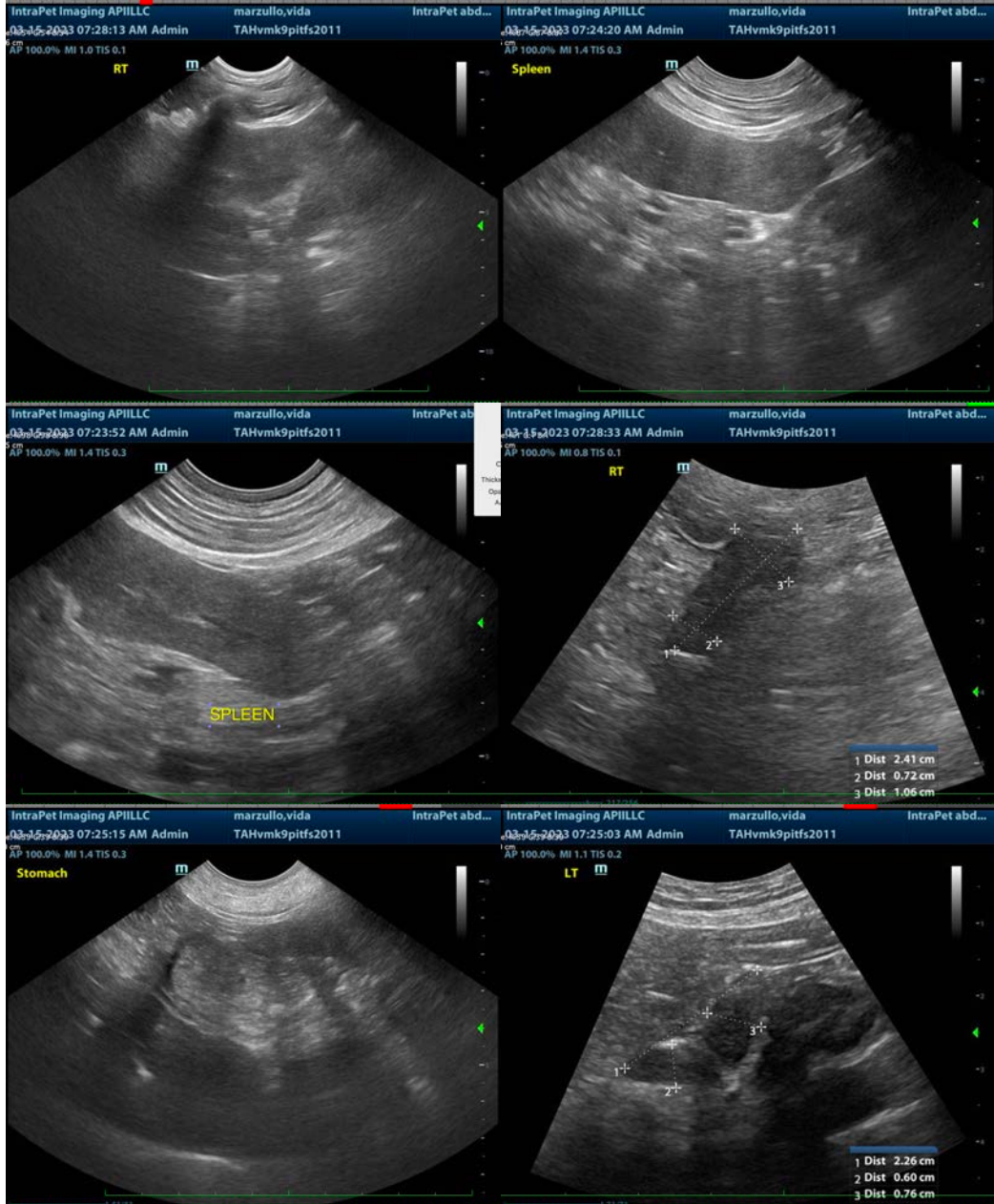
- **Mild bilateral adrenomegaly** – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Subtle splenic bulge** – This likely represents a benign condition such as extramedullary hematopoiesis, lymphoid hyperplasia, etc. However, given this patient's history of mast cell tumor, infiltrative or metastatic neoplastic disease should also be considered.
- No ultrasonographically visible explanation for this patient's hematuria.

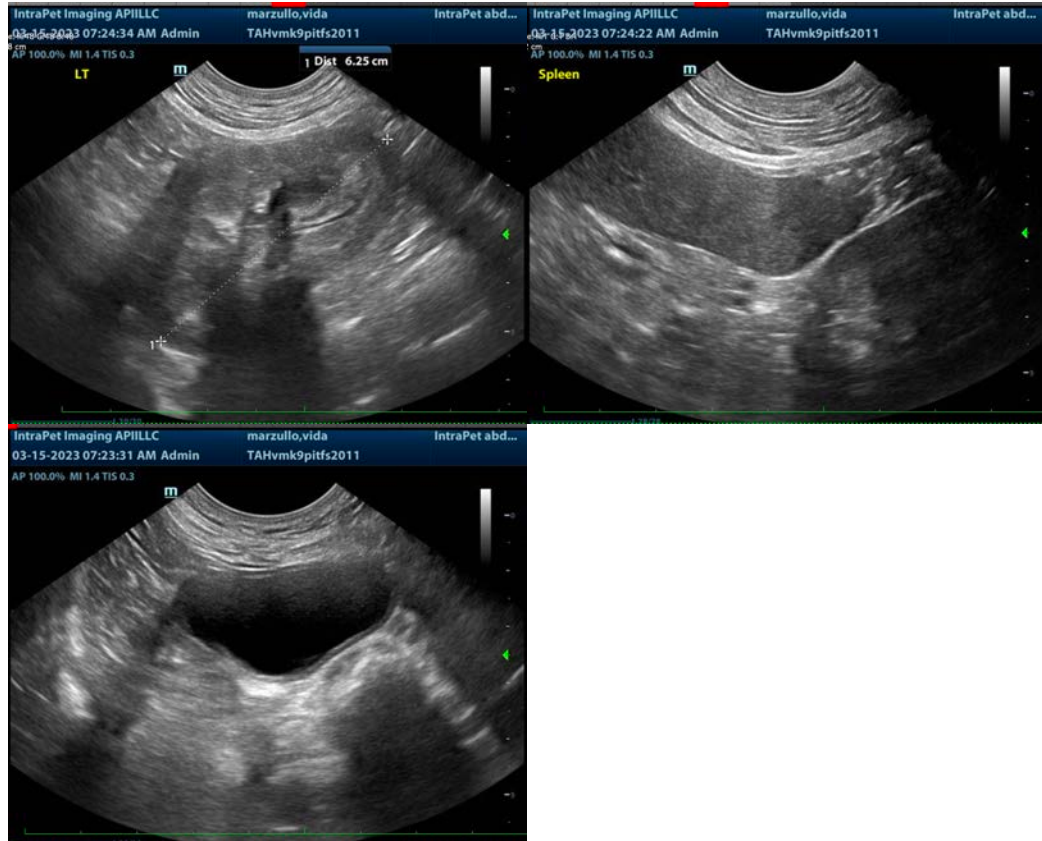
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given the repeated hematuria on free catch urine samples, a cystocentesis obtained urine sample is recommended to help better localize the hematuria. If hematuria is not present via the cystocentesis obtained sample, then a vaginal exam followed ultimately by vaginoscopy/cystoscopy is warranted to look for sources of lower urinary tract/reproductive tract causes of the blood. If blood is present in the cystocentesis obtained sample, culture of the urine would be recommended if not recently evaluated.

Additionally, blood pressure is recommended if not recently evaluated.

Finally, given this patient's history of mast cell tumor, a fine needle aspirate of the spleen should be considered if patient's coagulation status is appropriate, and pre-medication with diphenhydramine is recommended.





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