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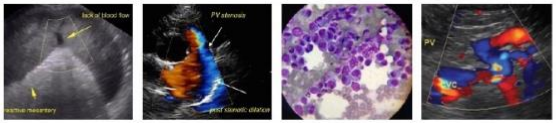


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Kiki Bathala

SPECIES

Feline

BREED

DLH

SEX

Spayed Female

AGE

11 Years

WEIGHT

3.5 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Governors Road AH

REFERRING VET

Dr. Dogar

INVOICE

20883

DATE

1/31/23

PRESENTING CLINICAL SIGNS

History: anorexia, anemia, UTI, concern for pyelonephritis Meds: mirtazapine, famotidine, sulcrate, clavamox, Fortiflora

Abnormal PE/Chem/CBC/UA Results: severe anemia (decreased hgb/rbcs/hct - 0.16 etc), normal wbcs, mild elevation in urea/globulins, decreased sp. gravity, cocci present, mild elevation in wbcs/rbcs, etc. Radiographic Findings soft tissue opacity - similar to food like material in stomach, gi tract, no obvious fb, obstruction or neoplasia but potential for soft tissue opacity fb or neoplasia, etc.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with primarily anechoic contents and a large amount of both suspended and dependent echogenic debris. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface. No cystoliths are observed. The bladder is surrounded by enhanced hyperechoic mesenteric fat.

Kidneys are bilaterally uniformly enlarged/swollen, with an overall hyperechoic echogenicity and slight loss of corticomedullary definition. Normal smooth peripheral margination and shape are maintained. The renal pelvis is dilated with anechoic fluid and hyperechoic thickened pelvic fat. No overt evidence of neoplasia or mineral is observed. The perinephric area is enhanced by hyperechoic fat and mesentery. The left kidney measures 4.7 cm. The right kidney measures 4.66 cm.

Adrenal Glands

Left adrenal gland is normal in size (0.52 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.28 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

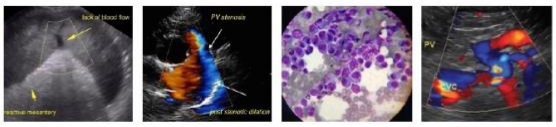
Liver

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.

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 empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.



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The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. 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 and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy. The urinary bladder and both kidneys are surrounded by hyperechoic enhanced mesenteric fat.

ULTRASONOGRAPHIC FINDINGS

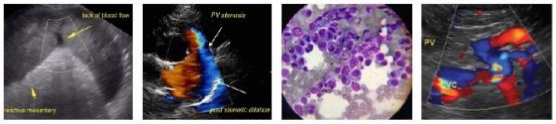
- Pyelonephritis – These changes are most consistent with chronic pyelonephritis. Chronic scarring and fibrosis and/or chronic nephrolith passage can also result in these pelvic dilation changes. Early infiltrative disease cannot be ruled out but is considered less likely.
- Splenic micronodular hyperplasia pattern – This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out.
- A large amount of urinary bladder debris with inflammatory changes around the urinary bladder.
- Inflammatory bowel disease (IBD) pattern -Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes in this ultrasound are consistent with possible pyelonephritis, as well as an infiltrative bowel disease. There is not an obvious cause for the reported anemia present. Differentials depend on whether the anemia is regenerative or not and could include chronic disease or potentially chronic kidney disease (although the level of azotemia doesn't support that), or potentially, an infiltrative bone marrow disease, even lymphoma. The bowel and splenic changes are both mild, but lymphoma is a differential. Therefore, recommendations include a urine culture, followed by treatment of the pyelonephritis, based on culture and sensitivity results with IV fluids, antibiotics, and gastrointestinal clinicals support (as needed), etc.

Additionally, 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.

Ideally, biopsies of the GI tract are recommended to definitively diagnose and therefore, manage the concurrent suspected infiltrative bowel disease. If a less invasive sampling method is desired sooner, a



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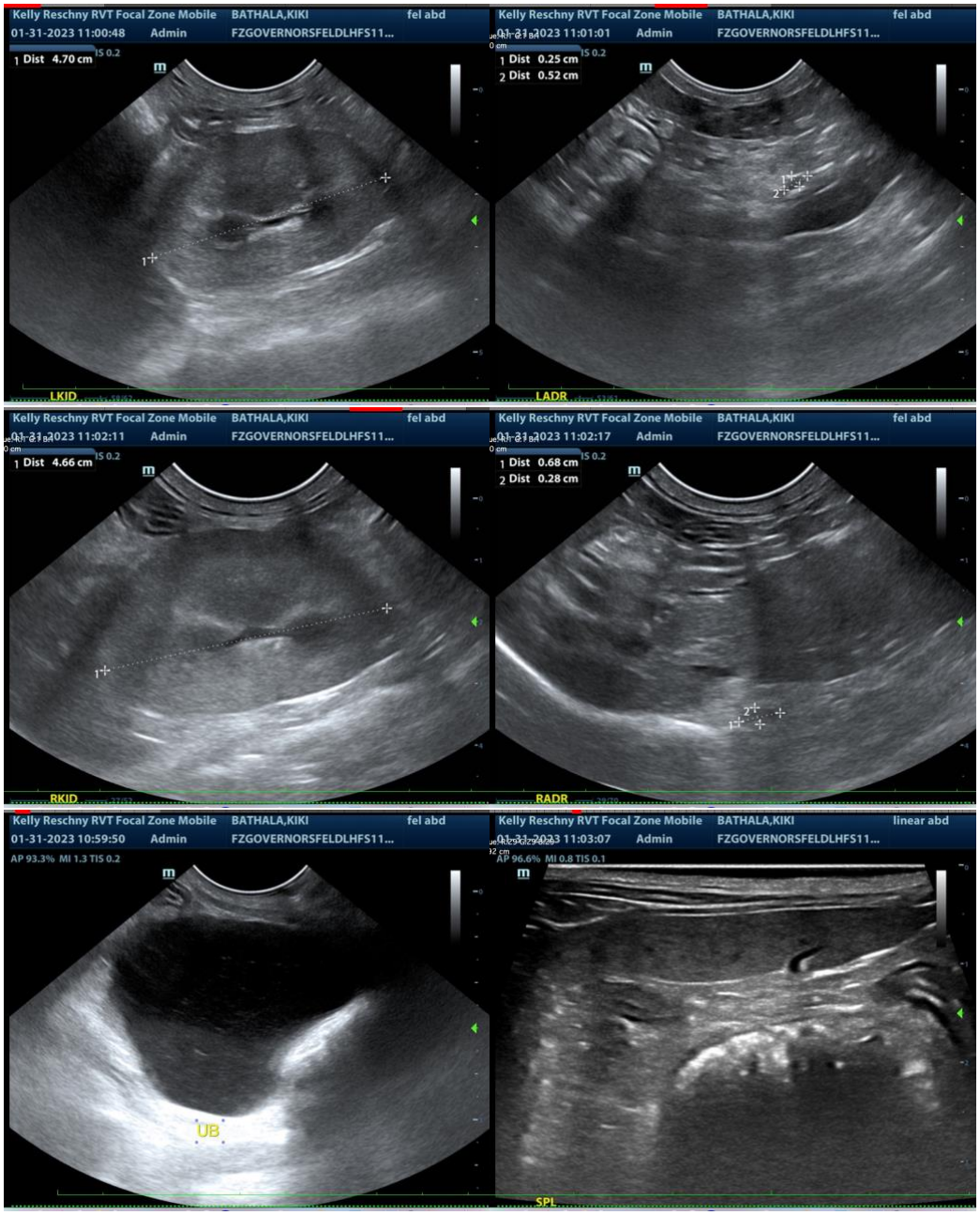
fine needle aspirate of the spleen could be considered first if patient coagulation status is appropriate. A blood transfusion may need to be considered.



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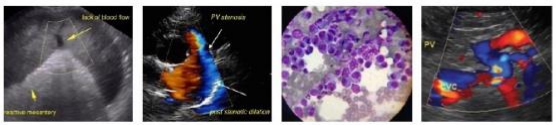

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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