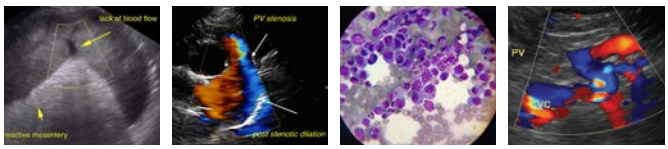
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Baby Girl Animal Welfare Services

SPECIES

Feline

BREED

DSH

SEX

Female

AGE

12 Years

WEIGHT

2.78 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

IMAGING PERFORMED BY

Dr. Elyse Hauer

HOSPITAL NAME

Mariposa Vet Hospital

REFERRING VET

Dr. Elyse Hauer

INVOICE

42480

DATE

10/28/22

PRESENTING CLINICAL SIGNS

Removed from a hoarder situation in August, full of fleas, underweight. Treated for fleas and treated for mycoplasma, but still has persistent anemia and hyperproteinemia despite treatment.

Abnormal PE/Chem/CBC/UA Results: Underweight. Severe stomatitis. Subjectively feels dehydrated on examination. Kidneys are large and seem uncomfortable on palpation. FIV/FeLV negative. Persistent hyperglobulinemia, hypoalbuminemia, non-regenerative anemia, leukocytosis. Total T4 is normal. SPE shows marked elevation in gamma globulins and mild elevation in alpha globulins. Concerned for FIP or renal neoplasia.

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 occasional echogenic non-shadowing debris, most consistent with incidental suspended lipid in a cat, possibly combined with exfoliated cells, mucous and/or small blood clots. 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.

Kidneys are large in size with increased cortical echogenicity. Normal smooth peripheral margination and shape are maintained. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of mineral or infarcts observed. Scant pyelectasia noted bilaterally. The right kidney measures 5.34 cm. The left kidney measures 4.9 cm.

Adrenal Glands

The right adrenal gland is normal in size (0.33 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.35 cm), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

Spleen

Spleen is subjectively large in size with a swollen and scalloped/undulating capsular contour. Multifocal coalescing nodules are noted throughout the parenchyma. Splenic vasculature appears normal. Enhanced hyperechoic surrounding fat is noted.

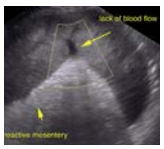
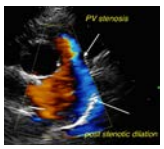
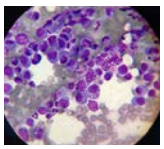
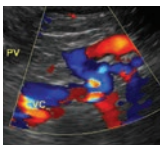
Liver

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.

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.

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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.

PRIMARY FINDINGS

- **Feline renomegaly –** These renal changes can be seen with glomerular or interstitial nephritis, FIP, amyloidosis, acute tubular necrosis or infiltrative neoplasia such as lymphoma. Normal variant due to fat deposition cannot be ruled out but is less common in an enlarged kidney.
- **Scant bilateral pyelectasia –** Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- **Honeycomb Spleen –** This finding is strongly suggestive of infiltrative disease such as round cell neoplasia. Benign disease cannot be ruled out but is considered less likely.

SECONDARY FINDINGS

- Urinary bladder debris

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Top differentials for this patient, given the reported hyperglobulinemia and hypoalbuminemia, include infectious disease such as FIP or infiltrative neoplasia such as lymphoma. Recommendations include a fine needle aspirate of the spleen +/- the kidneys both for cytology, potentially as well as submission to Auburn of samples for FIP PCR, especially if the albumin to globulin ratio is suggestive of FIP (i.e., <0.6). Additionally, if not already 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 ration is recommended.

Given this patient's reported history, infectious disease history, etc., some of these changes could be chronic inflammatory changes, normal patient variant, etc., especially if there is a concurrent urinary tract infection and potentially some early pyelonephritis combined with potentially hyperglobulinemia from the stomatitis. Therefore, albumin to globulin ratio, cytology, PCR, etc. are necessary to further narrow down the diagnosis.

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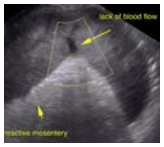
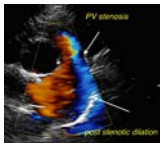
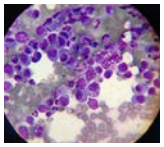
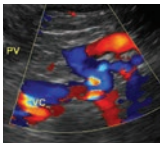

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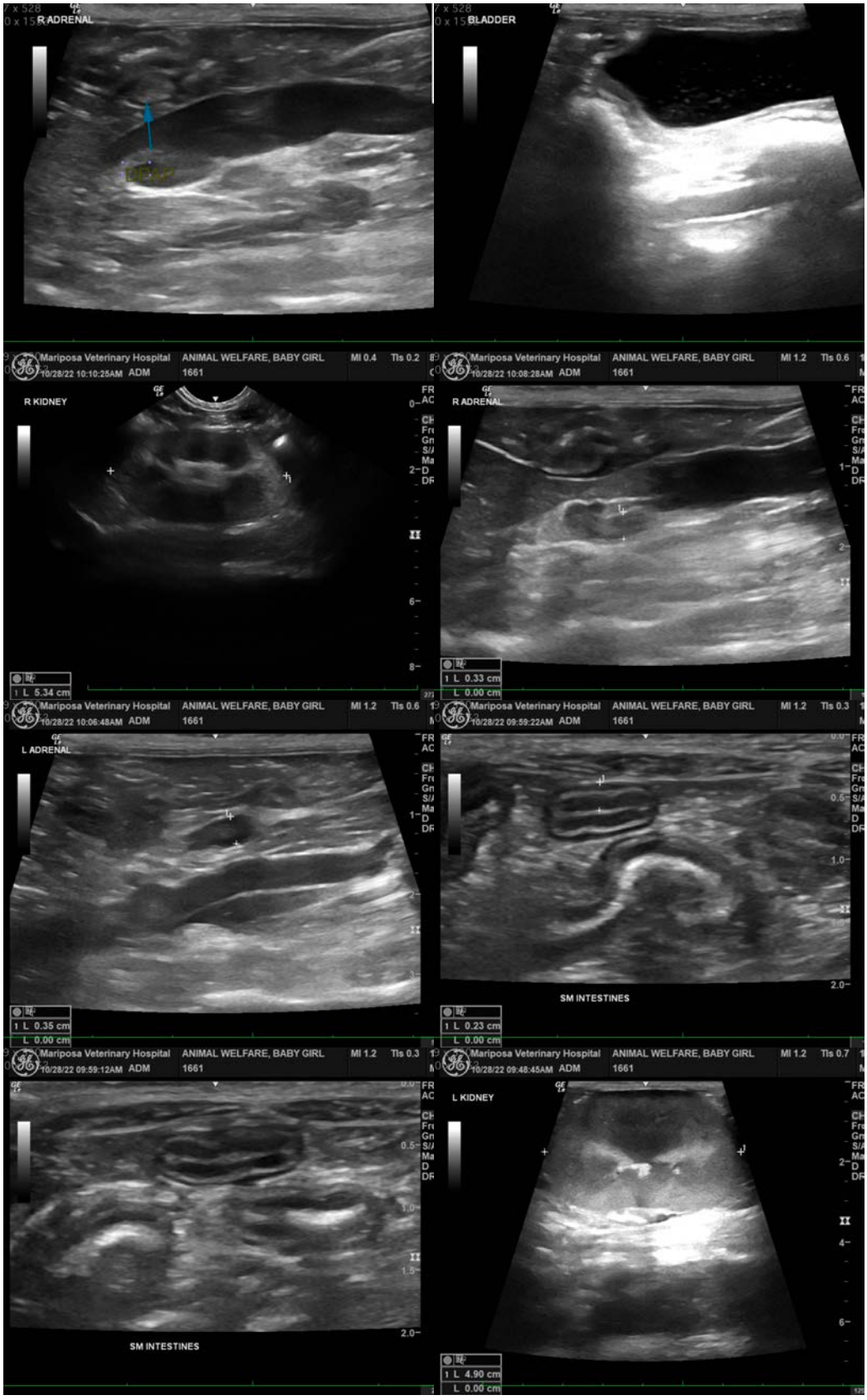

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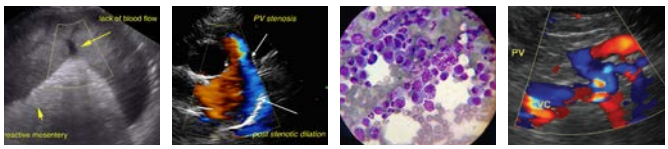

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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