



**PATIENT**

Zoey Campbell

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

4.7 kg

**INTERPRETED BY**

Beth Johnson, DVM  
 DACVIM

**IMAGING PERFORMED BY**

Amanda Stewart

**HOSPITAL NAME**

New Hamburg VC

**REFERRING VET**

Dr. Bellion

**INVOICE**

72021

**DATE**

1/7/26

**PRESENTING CLINICAL SIGNS**

Incidental anemia, no abnormal exam findings except for stage 3 periodontal disease Current Medications none.

Abnormal PE/Chem/CBC/UA Results: See attached lab work Chronic anemia (non regenerative) with schistocytes on blood smear, leukopenia (particularly neutropenia and lymphopenia) Negative FELV/FIV snap, unremarkable urinalysis and biochemistry. Will send results via email. Radiographic Findings None Primary Question to Be Answered in This Exam Any abdominal mass or disease that could explain anemia and leukopenia?

**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.

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. Left kidney measured 3.88 cm. Right kidney measured 3.82 cm.

**Adrenal Glands**

The right adrenal gland is normal in size (0.37 cm), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

The left adrenal gland is normal in size (0.28 cm), shape and overall architecture, echogenicity and echotexture. 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 enlarged with a swollen contour and diffusely moderately coarse architecture and subtly increased portal markings. Mildly mixed echogenic changes are noted diffusely. Multifocal discrete homogeneous hyperechoic densities are noted throughout the parenchyma. 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 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 moderately 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 or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

***Pancreas***

The pancreas that is observed 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 visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

**PRIMARY FINDINGS**

- Moderate 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 loss of layering or distinct characteristics of malignancy are present. Therefore, differentials cannot be further ranked without tissue sampling.
- The liver changes are non-specific and could represent a benign process such as an acute bacterial, lymphoplasmacytic, other reactive inflammatory or infectious hepatopathy, with incidental granulomas or even mineral densities, though infiltrative neoplasia and even neoplastic nodules can't be ruled out without tissue sampling.

**SECONDARY FINDINGS**

- Age related kidney changes.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given patient's reported CBC changes, pathology review of the CBC with special attention to the lymphocytes followed potentially by further lymphocyte investigation if indicated, could be considered.

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.

Fine needle aspirates of the liver are recommended if patient's coagulation status is appropriate.

The bowel changes are of unknown, if any relation to patient's reported cytopenias, but ultimately if a diagnosis of infectious disease or neoplastic disease, autoimmune disease, other is not made, biopsies of the GI tract, being sure to include ileum, if possible, could be considered for further investigation of lymphoma. Having said that, as stated above, there are no characteristics of malignancy within the bowel, and a benign process or even normal patient variant is equally possible.



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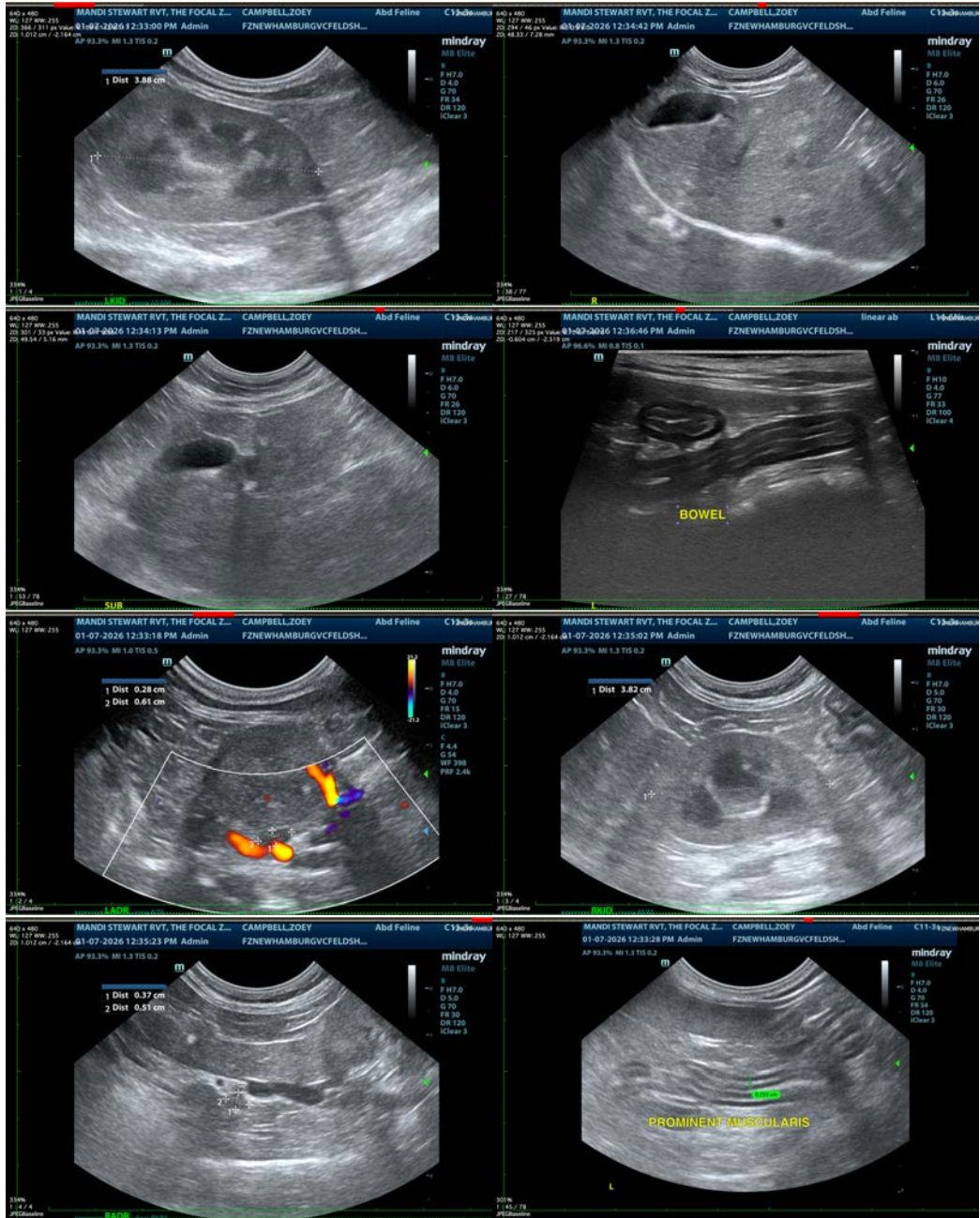
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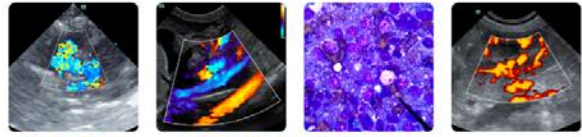
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Other than supportive/symptomatic medical management of clinical signs, further treatment recommendations are largely dependent on results of the above.





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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**  
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