



**PATIENT**

Piper Rewuski

**SPECIES**

Canine

**BREED**

Border Collie Mix

**SEX**

Spayed Female

**AGE**

6 years

**WEIGHT**

21.8 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Breanne  
Couperthwaite

**HOSPITAL NAME**

Woodbridge VC

**REFERRING VET**

Dr. Couperthwaite

**INVOICE**

91906

**DATE**

9/17/21

**PRESENTING CLINICAL SIGNS**

**History:** Piper presented today for a decreased appetite and progressive weight loss over the past 4 months (lost just over 3 kg since May 2021). O has been adding in some Chicken broth to soften the kibble as she noticed Piper seemed to be struggling to eat/chew her hard kibble, however now she will not even eat it that way. O has been feeding her whatever soft things she will eat - eggs, yogurt, pieces of meat, etc. O also mentioned she thought she was off a bit at her annual exam in May 2021 - panting more than normal? but thought it could be due to increasing warm weather.

**Abnormal PE/Chem/CBC/UA Results:** Mild to moderate periodontal disease but no fractured teeth or draining tracts visible. No murmurs or arrhythmias. No wheezes or crackles but lung sounds mildly increased bilat (old dog lungs?). Yelped on abdominal palpation. CBC-Mild anemia (unsure if regen. or non-regen - difficult to tell at this time), mild thrombocytopenia, mild stress lymphopenia. Chem - Mild elevations in ALP (188 U/L) and ALT (223 U/L), otherwise unremarkable.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

\*\*\*15 still images and multiple videos were submitted\*\*

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Both kidneys measured 5.0 cm.

**Adrenal Glands**

The left **adrenal gland** was imaged and appeared small measuring 0.4 cm. The right adrenal gland was not visualized. However, the region of the right adrenal gland was imaged with no evidence of pathology.

**Spleen**

The **spleen** was enlarged with multi-focal, hypoechoic nodular changes. Generalized splenomegaly was noted. There was no evidence of peripheral inflammation. FNA of the spleen is recommended given the patient's history.

**Liver**

Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future.



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This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

**Gastrointestinal**

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Minor retention of chyme was noted in the stomach. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. Soft stool was noted in the colon. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

**Pancreas**

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

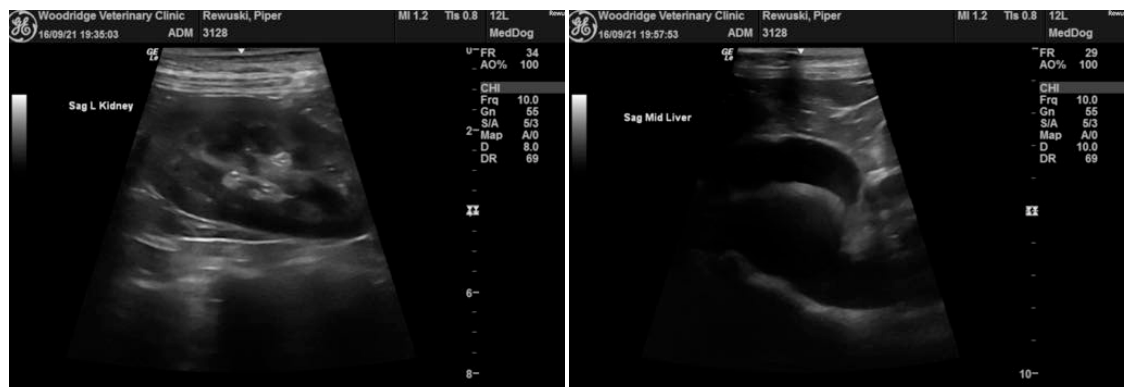
**ULTRASONOGRAPHIC FINDINGS**

Undefined splenomegaly with nodular changes. Pronounced hyperplasia versus round cell neoplasia are the primary concerns.

Small left adrenal gland.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Ultrasound-guided FNA of the spleen is warranted. Otherwise, unremarkable abdomen. I recommend screening for Addison's given the vague clinical signs, subnormal left adrenal size and non-visible right adrenal gland. This along with splenic FNA would be appropriate. Otherwise, there was no evidence of pathology.





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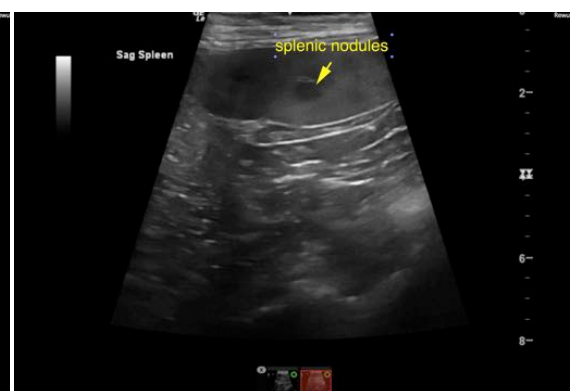
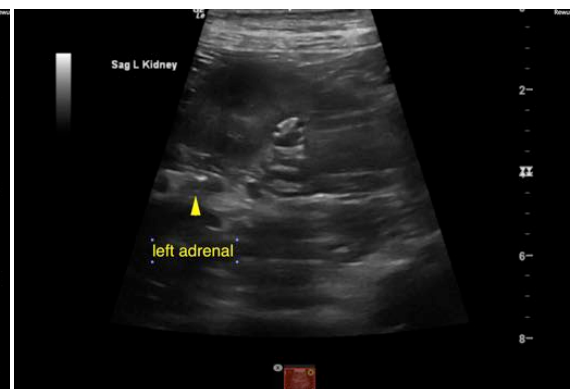
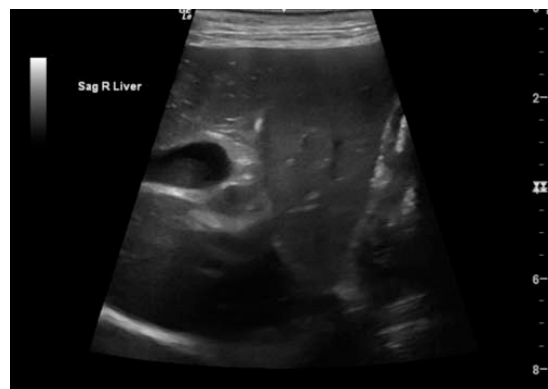
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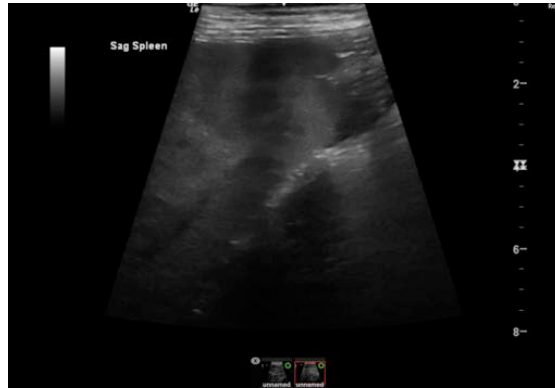
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com