



**PATIENT**

Tonka Ellenberger

**SPECIES**

Canine

**BREED**

German Shorthaired  
Pointer

**SEX**

Male, neutered

**AGE**

14 yrs..

**WEIGHT**

25 kg..

**INTERPRETED BY**

Andrea Nicaastro, DVM,  
Diplomate ACVIM  
(*Small Animal Internal  
Medicine*)

**IMAGING  
PERFORMED BY**

Crystal Hill

**HOSPITAL NAME**

Preston AC

**REFERRING VET**

Dr. MacDonald

**PRESENTING CLINICAL SIGNS**

History: Less active, appetite slowly declining, losing protein. Had ultrasound about 1 year ago - follow up for changes. Concerned about neoplasia. Has been on Metacam for joint pain and spondylosis. Also is on Phenobarb for new onset of focal type seizures over last 6 months. Last ultrasound 4/5/21.  
Abnormal PE/Chem/CBC/UA Results: Losing protein. Rest fairly normal.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended. A scant amount of suspended echogenic debris is observed within the lumen. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (6.28 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.57 cm in length) with a slightly irregular shape. The cortex is variably thickened and there is moderate loss of corticomedullary distinction. A few small cortical cysts are observed. Trace pyelectasia is present. There is no evidence of nephroliths or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size (0.73 cm at cranial pole) (0.70 cm at caudal pole) (2.22 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal in size (0.93 cm at cranial pole) (0.49 cm at caudal pole) (2.15 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

*Spleen*

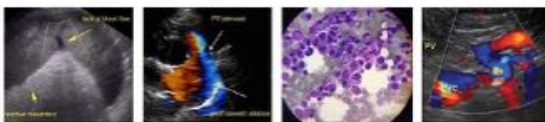
The spleen is normal to slightly prominent in size (2.35 cm in width at the level of the hilus) with normal curvilinear peripheral contours. A light micronodular pattern is present throughout the parenchyma. At least one small hyperechoic nodule is seen. Splenic vasculature is normal with no evidence of thrombosis.

*Liver*

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal.

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***Gastrointestinal***

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The gastric lumen is mildly distended with ingesta. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

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***Pancreas***

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The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

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***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

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**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

25 kg..

- The splenic parenchyma changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis or splenitis with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- Bilateral, age-related renal changes.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.

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Medicine*)

\*An obvious cause for the patient's clinical signs is not identified in this study.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the history of hypoproteinemia, consider the following:

1. Pre- and post-prandial serum bile acids to assess hepatic function.
2. UPC (if proteinuria is present).
3. A fecal evaluation for ova/Giardia
4. Malabsorption panel including serum cobalamin, folate, TLI and PLI.
5. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended
6. Depending on the results of the above diagnostics, gastrointestinal and/or hepatic biopsies may be necessary to get a definitive diagnosis.
7. Also consider three-view thoracic radiographs to assess for occult neoplasia in the chest.

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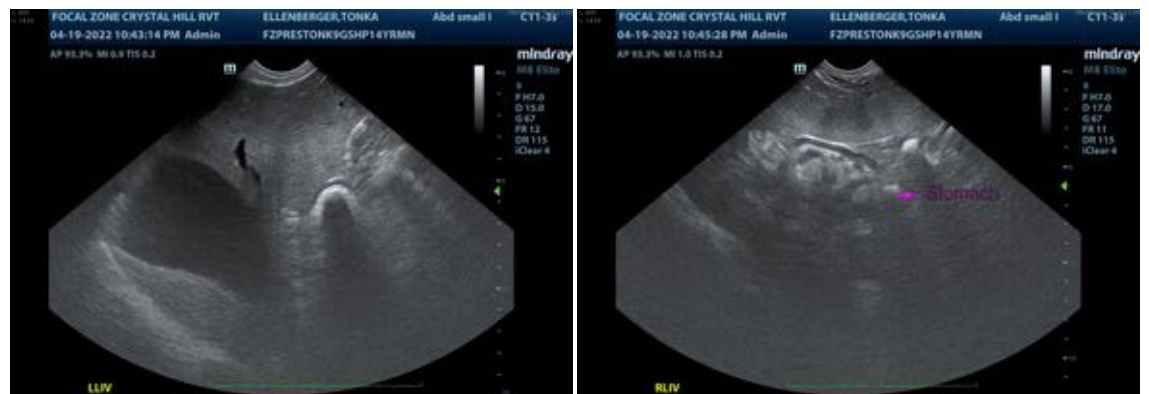
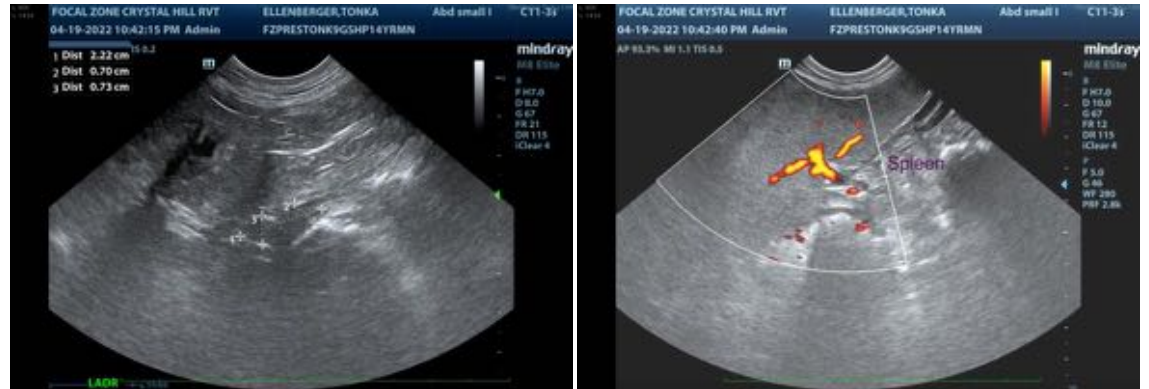
Preston AC

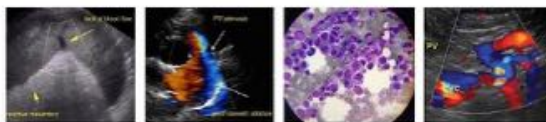
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

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Andrea.nicastro@sonopath.com

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