



**PATIENT**

Bella Giltner

**PRESENTING CLINICAL SIGNS**

History: Pre- dental exam shows severe periodontal disease. Labs showed marked ALP elevation over 1200 and mild to moderate hyperglobulinemia.

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: ALP marked elevation. Globulins elevated 46. Mild BUN elevation with normal creatinine.

**BREED**

Yorkie mix

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone is normal.

**SEX**

Female, spayed

The left kidney is normal size (3.75 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and isoechoic relative to the spleen. There is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. A few small non-obstructive nephroliths are visualized. There is no evidence of infarcts or hydroureter.

**AGE**

11 Yrs.

The right kidney is normal size (3.89 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and isoechoic relative to the spleen. There is moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Trace pyelectasia is present. A few small non-obstructive nephroliths are visualized. There is no evidence of infarcts or hydroureter.

**WEIGHT**

5 kg.

*Adrenal Glands*

The left adrenal gland is normal size (0.38 cm at cranial pole) (0.37 cm at caudal pole); 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 size (0.28 cm at cranial pole) (0.36 cm at caudal pole); 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.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Dr. Barthelemy

*Spleen*

**HOSPITAL NAME**

Bridgeland VC

The spleen is normal in size (1.08 cm in width at the level of the hilus) with a normal capsular contour. The parenchyma is subtly mottled in appearance. No focal lesions are observed. Splenic vasculature is normal.

**REFERRING VET**

Dr. Kelman

*Liver*

The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature 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*

**DATE**



**PATIENT**

Bella Giltner

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. 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.

**SPECIES**

Canine

***Pancreas***

The base and right limb of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

**BREED**

Yorkie mix

**SEX**

Female, spayed

***Free Abdomen***

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

**AGE**

11 Yrs.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

5 kg.

**Primary Findings:**

- 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.
- The bilateral renal changes are most consistent with chronic interstitial nephrosis/nephritis with non-obstructive nephrocalcinosis.

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

**Secondary Findings:**

- The splenic parenchymal changes are most consistent with a benign process such as lymphoid hyperplasia, extramedullary hematopoiesis, splenitis or antigenic stimulation with a low possibility of infiltrative neoplasia (i.e., lymphoma, mast cell neoplasia).
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

**IMAGING  
PERFORMED BY**

Dr. Barthelemy

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Bridgeland VC

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**REFERRING VET**

Dr. Kelman

- Serial monitoring (i.e., every 3-4 months) of the patient's liver values is recommended. If liver values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Given the mild azotemia, consider the following:

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1. Urinalysis +/- culture and sensitivity
2. UPC (if proteinuria is present in the absence of infection)
3. Baseline blood pressure measurement

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## IMAGING PERFORMED BY

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## HOSPITAL NAME

Bridgeland VC

## REFERRING VET

Dr. Kelman

## INVOICE

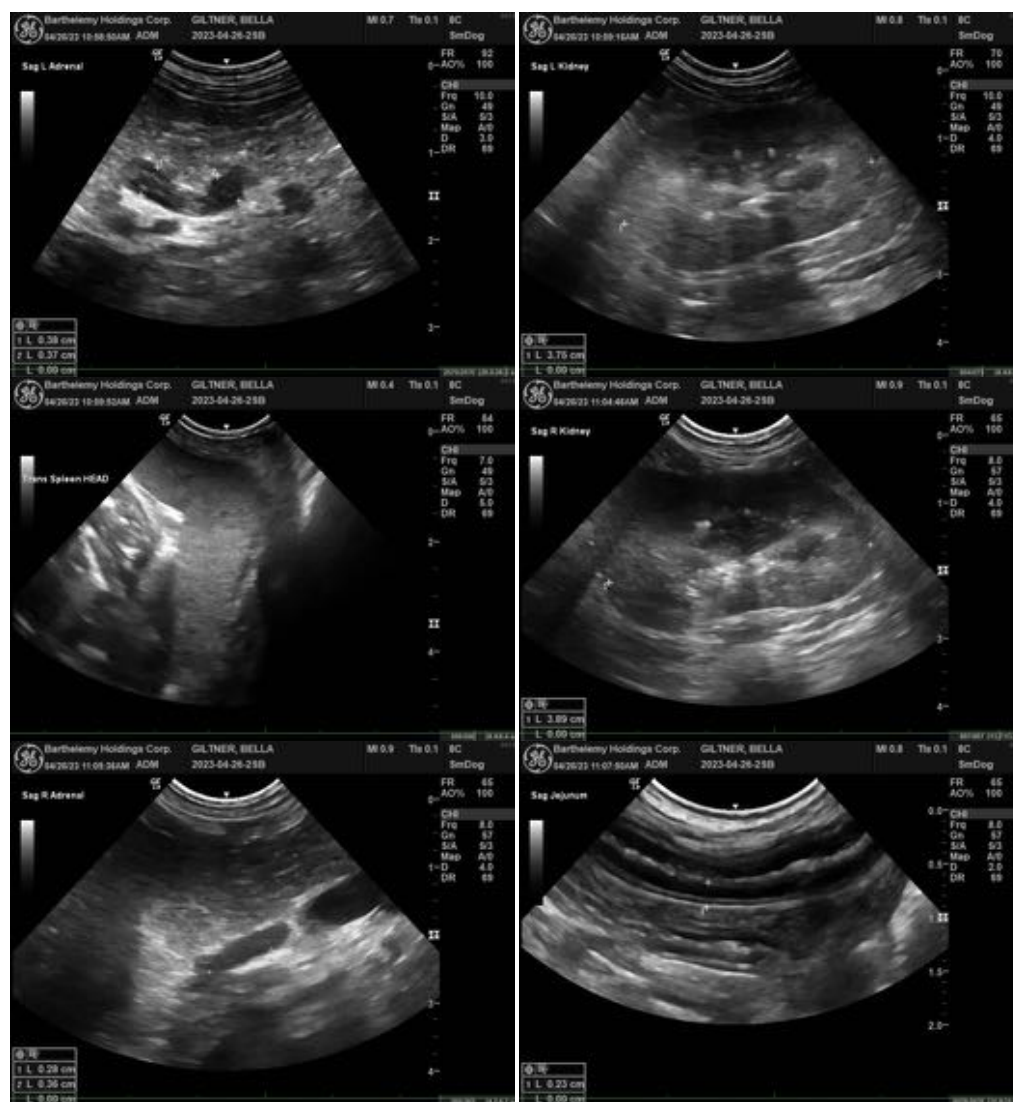
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4. Consider transitioning to a prescription renal diet

5. Serial monitoring (i.e., every 3-4 months) of the patient's renal values is recommended to assess for progressive azotemia.

- Given the patient's age, three-view thoracic radiographs are recommended to assess cardiopulmonary status prior to anesthesia.
- If the hyperglobulinemia persists following the dental cleaning, consider further workup (i.e., serum protein electrophoresis).





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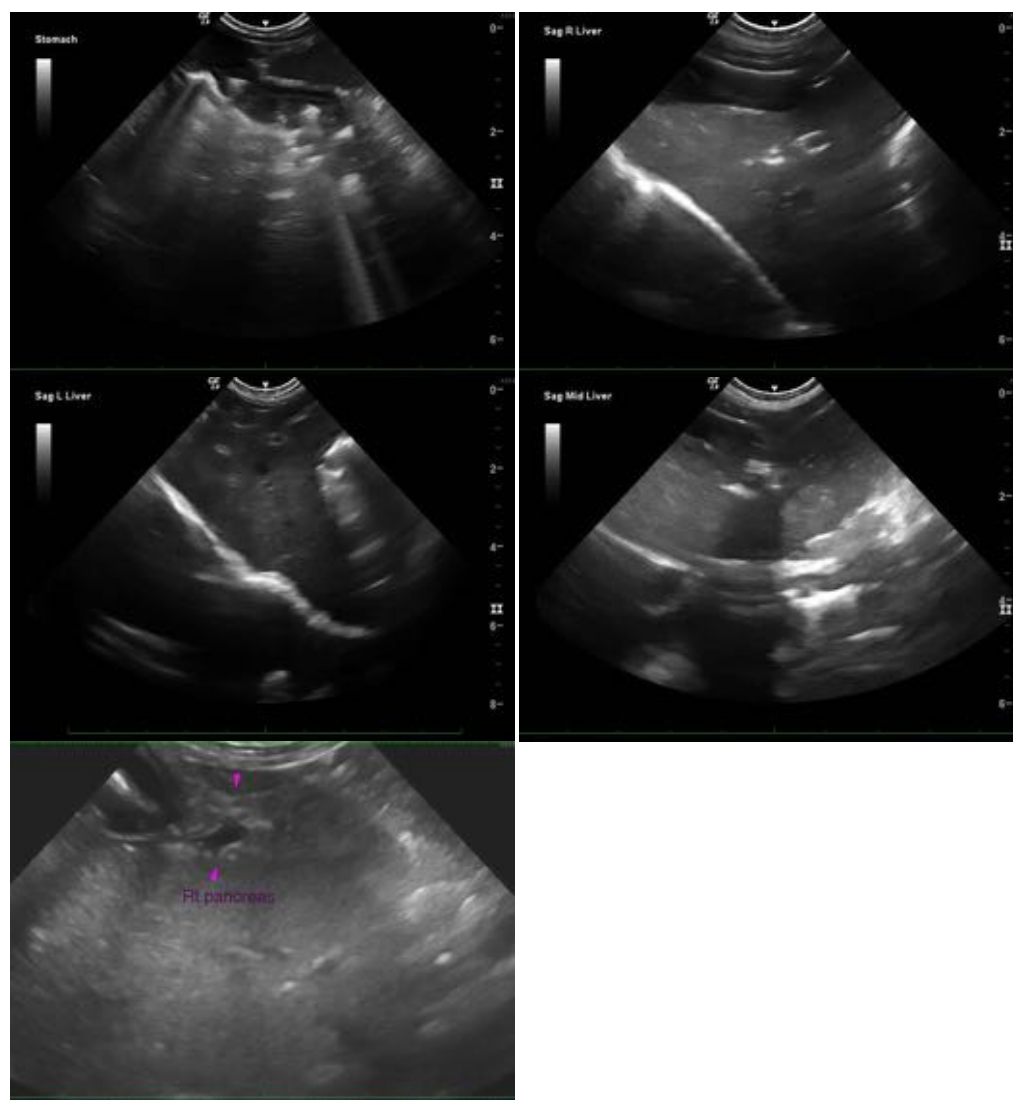
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)  
[info@SonoPath.com](mailto:info@SonoPath.com)