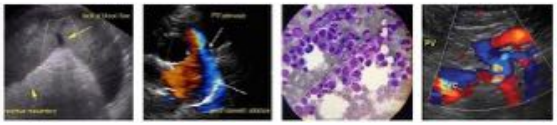




**PATIENT**
Zoey Dueck

**SPECIES**
Canine

**BREED**
Chihuahua

**SEX**
Female, spayed

**AGE**
11 Yrs.

**WEIGHT**
4 lbs.

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

**IMAGING PERFORMED BY**
Crystal Hill

**HOSPITAL NAME**
St. Cattharines AH

**REFERRING VET**
Dr. Boctor

**DATE**
8/15/22

## PRESENTING CLINICAL SIGNS

History: Presented 3 weeks ago due to vomiting and diarrhea. Recurring off and on for 3 years. Bloodwork indicated pancreatitis. Rads suggestive of small intestinal maldigestion pattern and recommend ultrasound. Finished course of Metronidazole and Sulcralfate.
Abnormal PE/Chem/CBC/UA Results: Elevated BUN and Lipase. Please see attached Rad report.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal in size (2.77 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few tiny nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (2.93 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal size (0.28 cm at cranial pole) (0.32 cm at caudal pole) (1.23 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 size (0.56 cm at cranial pole) (0.33 cm at caudal pole) (1.11 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.

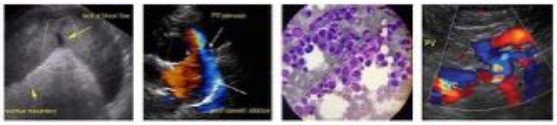
### *Spleen*

The spleen is normal in size (0.79 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

### *Liver*

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and 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.

### *Gastrointestinal*





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The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is mildly distended with ingesta. 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.

### *Pancreas*

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.

### *Free Abdomen*

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

## ULTRASONOGRAPHIC FINDINGS

**Primary Findings:**

- An obvious cause for the patient's clinical signs is not identified in this study. Differentials include primary gastrointestinal disease (i.e., food intolerance/allergy, infectious/parasitic disease, inflammatory bowel disease), mild pancreatitis, underlying metabolic issue, other.

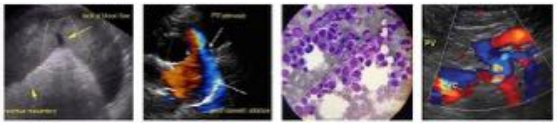
**Secondary Findings:**

- Bilateral, degenerative renal changes with dystrophic mineralization and left non-obstructive nephrolithiasis.
- 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.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The following diagnostics/treatment recommendations can be considered:

1. Serum cobalamin, folate, PLI and TLI
2. A fecal evaluation for ova/Giardia
3. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
4. A 6-week limited antigen diet trial to assess for food allergies.
5. Consider a 4-week course of Tylosin at 15-20 mg/kg by mouth every 12 hours as empirical treatment for small intestinal bacterial overgrowth.
6. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.





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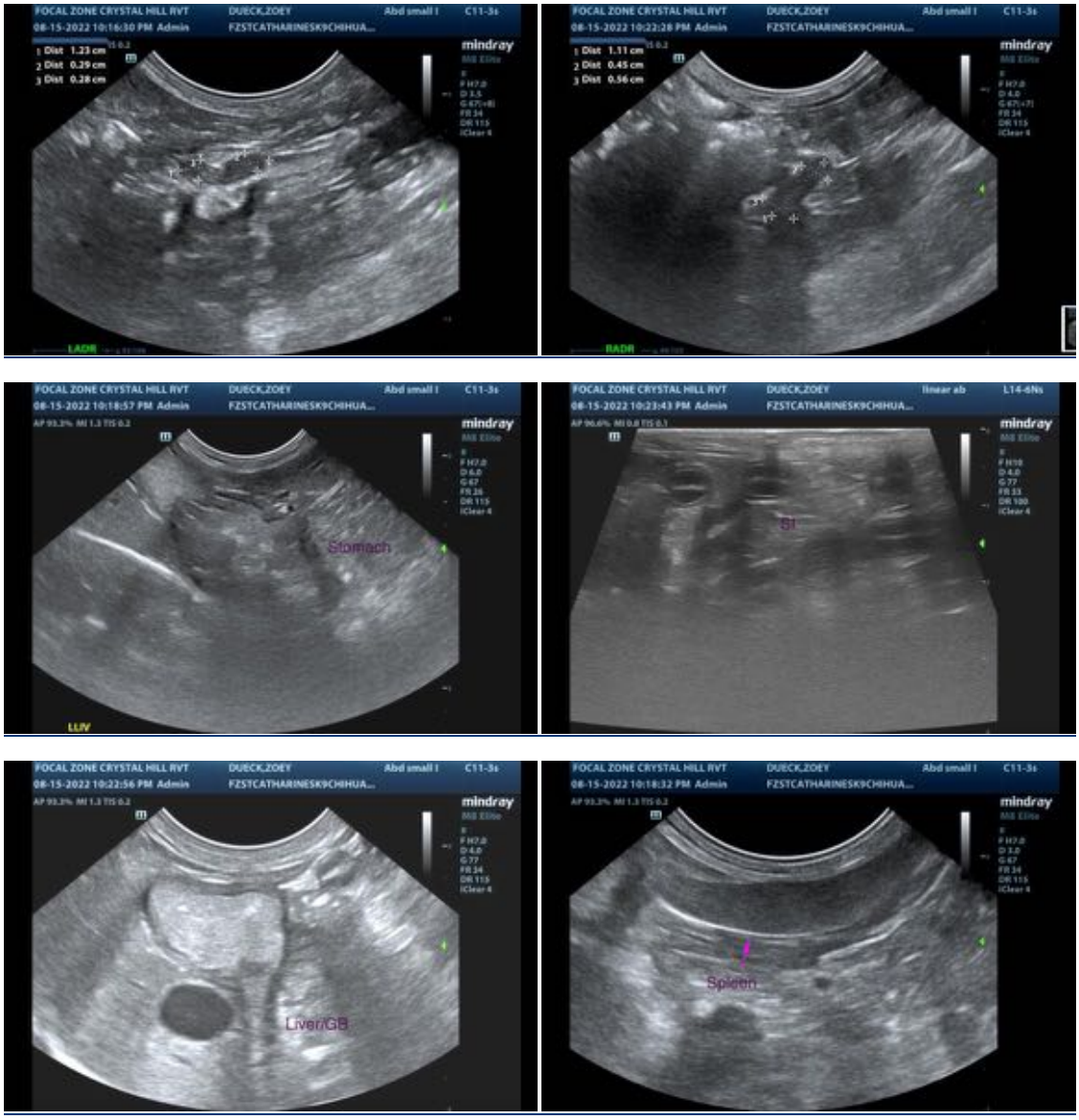
7. Depending on the results of the above diagnostics/therapeutics, endoscopic or surgical gastrointestinal biopsies may be warranted. Three-view thoracic radiographs should be performed prior to any anesthetic event.




**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

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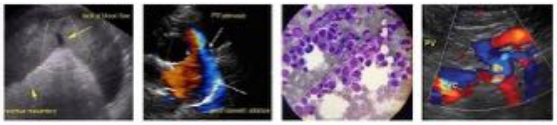

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289-808-2608 infoethefocalzone.com

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