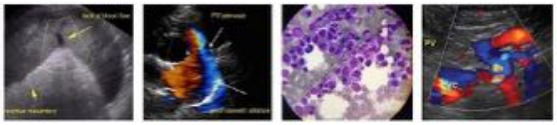




**PATIENT**
Winnie Fraser

**SPECIES**
Canine

**BREED**
German shepherd

**SEX**
Female, spayed

**AGE**
8 Yrs.

**WEIGHT**
72.1 lbs.

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

**IMAGING PERFORMED BY**
Crystal Hill

**HOSPITAL NAME**
Hillview VC

**REFERRING VET**
Dr. Stevenson

**DATE**
14278

## PRESENTING CLINICAL SIGNS

History: Chronic waxing and waning vomiting, drooling. Black diarrhea also with fresh blood. Hind leg lameness and general malaise. Was seen at emerg/referral hospital for inability to use back end. Some suspicion of possibly having ingested Rat poison and a diaper at some point over the last few weeks. Gabapentin 300mg - 1 capsule every 8-12 hours for pain. Cerenia 60mg. Was on Pred with no change and after a wash out on Metacam which was discontinued with the dark, tarry stools. Abnormal PE/Chem/CBC/UA Results: hematocrit .37 (.38-.57) hemoglobin 133 (134-207) potassium 3.9 (4-5.4) Na:K 38 (28-37) TP 53 (55-75) Albumin 25 (27-34) ALT 229 (18-112) ALP 530 (5-160) Rads: Fusion L7-sacrum, Fusion T12-13, T13-L1, L1-L2, L2-L3 Suspect lower spinal issue. Can see calcification on the thorax and anterior lumbar vertebrae.

## 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 moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone is normal.

The left kidney is normal size (7.17 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A hyperechoic medullary band is observed at the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (6.67 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A hyperechoic medullary band is observed at the corticomedullary junction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal size (0.56 cm at cranial pole) (0.55 cm at caudal pole) (2.53 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.

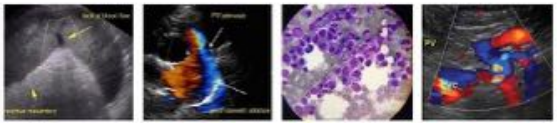
The right adrenal gland is not definitively visualized in the available images. However, no obvious pathology is observed in this region.

### *Spleen*

The spleen is normal in size (1.93 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 normal to slightly prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly mottled in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated echogenic to mineralized gravity-dependent debris/sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.





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### *Gastrointestinal*

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not overtly dilated. In one segment of jejunum, a 1.14 cm shadowing structure is visualized. 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.

### *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:**

- Based on the patient's chemistry panel findings and sonographic liver changes, a diffuse hepatopathy (i.e., inflammatory disease, hepatotoxicity, infiltrative neoplasia, (less likely), other hepatopathy) is suspected.

**Secondary Findings:**

- Minor, bilateral, age-related renal changes.
- The shadowing structure within the small intestinal lumen is thought to represent transient foreign material as an obstructive pattern is not visualized at the time of this study.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Pre and post prandial serum bile acids are recommended to assess hepatic function.
- Given the hypoalbuminemia, also consider a UPC (if proteinuria is present) and a baseline cortisol level (to screen for hypoadrenocorticism). The baseline cortisol level should be performed a few weeks following the last dose of Prednisolone.
- Given the chronic GI signs, also consider three-view thoracic radiographs to assess for occult esophageal disease, a fecal evaluation for ova and Giardia and a GI panel including serum cobalamin, folate, TLI and PLI.
- Due to the concern for possible ingestion of rat poison, consider assessment of clotting parameters (PT/PTT).
- Depending on the results of the above diagnostics, hepatic and/or gastrointestinal biopsies may be warranted. In the meantime, supportive care for gastrointestinal ulceration is recommended, including a proton pump inhibitor, Sucralfate and a bland diet.

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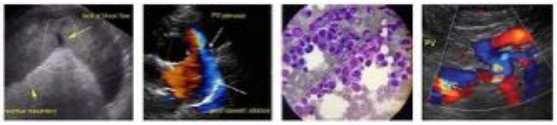

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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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

**DATE**

14278