

## PATIENT

Rosie Harrold

## SPECIES

Canine

## BREED

Yorkshire Terrier

## SEX

Spayed Female

## AGE

6 years

## WEIGHT

7.5l bs

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Loetitia Saint-Jacques,  
RVT LVT

## HOSPITAL NAME

Desert Hills AH

## REFERRING VET

Dr Brock

## INVOICE

11754

## DATE

9.30.22

## PRESENTING CLINICAL SIGNS

History: Chief Concern/Provisional Diagnosis: Intermittent Gastroenteritis History/Physical Findings: P presented 9/29/22 for an exam for vomiting. Patient has a 3 year history of intermittent vomiting and diarrhea. Labs performed NSF. Previous fecal tests -negative. Resting Cortisol WNL. Maldigestion profile showed an elevated TLI.

Current Therapy and Medications: Hydrolyzed Protein Diet, Cerenia, owner will occasionally give metronidazole for loose stools.

## 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 and the visible portion of the proximal urethra are normal.

The **left kidney** is normal size (3.40 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A few pinpoint mineralized foci are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The **right kidney** is normal size (3.36 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

### Adrenal Glands

The **left adrenal gland** is normal size (0.39 cm at cranial pole) (0.44 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 (0.45 cm at cranial pole) (0.47 cm at caudal pole) (1.33 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.

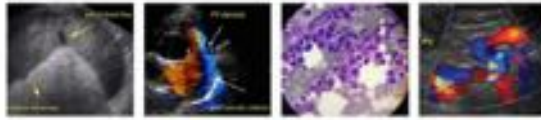
### Spleen

The **spleen** is normal in size (0.93 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. At the head of the spleen, a 1.08 x 0.64 hypoechoic to heterogenous nodule is visualized. The lesion does not cause capsular expansion. Splenic vasculature is normal.

### Liver

The **liver** is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogenous in appearance. There is an increase in portal markings. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The **gall bladder** is moderately distended. The wall is diffusely thickened (up to 0.16 cm) with a "double-walled" effect. A small bleb of hyperechoic sludge is observed near the gall bladder neck. The cystic and common bile duct walls are diffusely thickened. Thickened lumens are not overtly dilated. There is no obvious evidence of an intraluminal obstruction.



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### **Gastrointestinal**

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. There is no evidence of an obstructive pattern.

### **Pancreas**

The base and limbs 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 (0.20 cm in diameter). There is no evidence of peripancreatic inflammation or effusion.

### **Free Abdomen**

There is no evidence of free fluid. Two **lymph nodes** are visible at the aortic trifurcation, the larger measuring 0.44 cm in length. A 0.93 cm gastric lymph node is present, as well as a few prominent mesenteric lymph nodes, the largest measuring 0.66 cm in length.

### **Other**

A **brief echocardiogram** reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

- The hepatobiliary changes are most consistent with cholangitis/cholecystitis/cholangiohepatitis. However, benign age-related hyperplasia cannot be completely excluded.
- The splenic nodule could be consistent with an emerging tumor (i.e., sarcoma, round cell tumor). Alternatively, a focus of lymphoid hyperplasia, extramedullary hematopoiesis, or similar, cannot be excluded.

### **Secondary Findings**

- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Bilateral degenerative renal changes

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Regarding the gastrointestinal signs, consider the following:

1. Despite the negative fecal evaluation, consider prophylactic deworming with Fenbendazole.
2. Also consider supplementation with a probiotic with a high colony count (i.e., Provable Forte or Visbiome).



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3. Empirical treatment for small intestinal bacterial overgrowth with a 4-week course of Tylosin can also be considered.
4. Consider pre-and postprandial serum bile acids to assess for occult hepatic dysfunction.
5. Depending on the results of the above diagnostic/therapeutics, GI biopsies (i.e., endoscopic or surgical) may be warranted.

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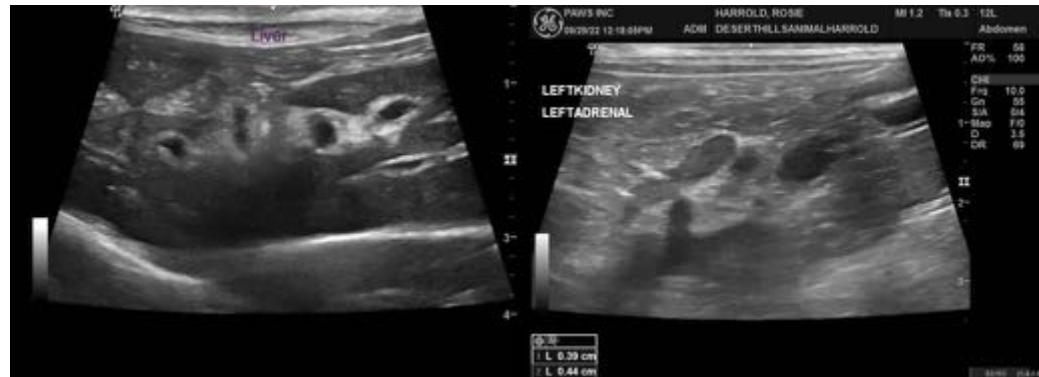
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Regarding the splenic nodule, consider a fine-needle aspirate if accessible, and if clotting status is appropriate. Otherwise, consider a recheck ultrasound in 3-4 weeks to assess for progression.

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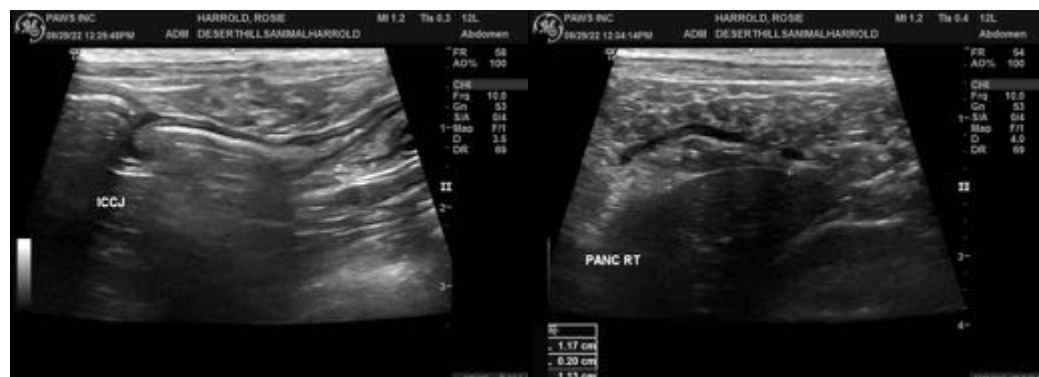


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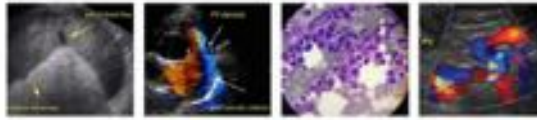
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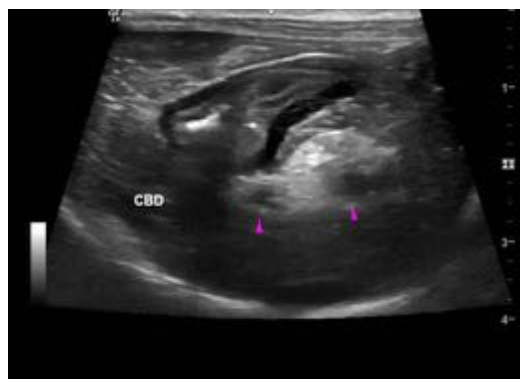
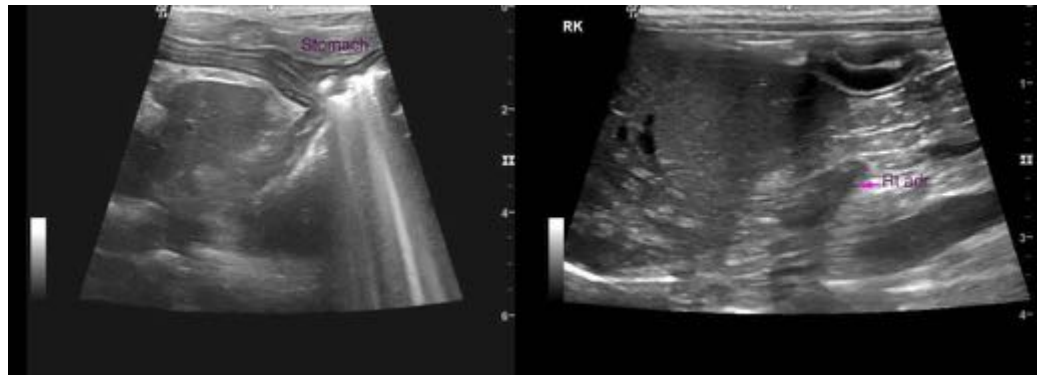
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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