



**PATIENT PRESENTING CLINICAL SIGNS**

Sierra Frankenfield History: 3 week duration vomiting, diarrhea

Medication: Medication, Carafate, Pepcid

**SPECIES**

Mild neutropenia and lymphopenia, total protein 6.4.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

**Urinary System**

Poodle Mix

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

**SEX**

FS

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 6.2 cm. The right kidney measured 6.5 cm.

**AGE**

10 years

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

**WEIGHT**

37 Pounds

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.66 cm at the cranial pole and 0.54 cm at the caudal pole. The right adrenal gland measured 0.84 cm at the cranial pole and 0.59 cm at the caudal pole.

**INTERPRETED BY**

**Spleen**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present. A solitary, subtly expansive, mildly hypoechoic nodule was noted in the craniomedial spleen, measuring 2.0 cm in diameter. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**Liver**

**HOSPITAL NAME**

Stanglein VC

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**REFERRING VET**

Dr. Stanglein

**Gastrointestinal**

**INVOICE**

25775

The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The stomach was empty with mild luminal gas. Gastric body wall measured 0.63 cm.

**DATE**

9.23.2021

The small intestine presented intact wall layering with primarily maintained 1:3 muscularis/mucosa ratio with propensity for segmental mildly prominent muscularis and submucosal layer. The lumen of the small



**PATIENT** Sierra Frankenfield  
intestine was empty with no signs of ileus, obstruction or foreign material. Duodenum wall measured 0.46 cm. Jejunum wall measured 0.35 cm.

Normal visible colon wall layers were present. Mild proximal colon dilation noted, containing nonformed to liquid feces.

**SPECIES**

Canine

**Pancreas**

The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

**BREED**

Poodle Mix

**Free Abdomen**

Several enlarged mid abdominal mesenteric lymph nodes were present. Example measured 0.90 cm in diameter. These lymph nodes were homogenous, mildly hypoechoic and smoothly margined. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident.

**SEX**

FS

No effusion.

**AGE**

10 years

**ULTRASONOGRAPHIC FINDINGS**

- Non-specific splenic nodule
- Gastroenterocolitis, potential inflammatory bowel
- Associated mild mid abdominal mesenteric lymphadenopathy - reactive hyperplasia or mild associated reactive lymphadenitis likely.

**WEIGHT**

37 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Potential etiologies for the splenic nodule may include benign process such as nodular hyperplasia, extramedullary hematopoiesis, hematoma, infection, infarction, or primary vs metastatic neoplasia. Ultrasound guided FNA of the nodule using 25-gauge needle and assuming normal coagulation parameters may be considered. Otherwise, sonographic monitoring of the splenic nodules for any changes in size or appearance with initial recheck in 3-4 weeks would be a more conservative approach.

Food intolerance/dietary hypersensitivity, occult parasitism also possible. Minor potential for occult neoplastic infiltrative enteropathy with potential emerging neoplastic mesenteric lymphadenopathy, yet this is considered an unlikely differential diagnosis. A GI panel to include PLI/TLI/Cobalamin/Folate, fresh fecal analysis to assess for parasitic ova / Giardia and resting cortisol to rule out occult Addison's Disease is warranted.

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP  
(Canine and Feline)

Empirically, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Proviale or Visbiome), antibiotic trial and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

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ARDMS/RVT

**HOSPITAL NAME**

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**PATIENT**

Sierra Frankenfield

**SPECIES**

Canine

**BREED**

Poodle Mix

**SEX**

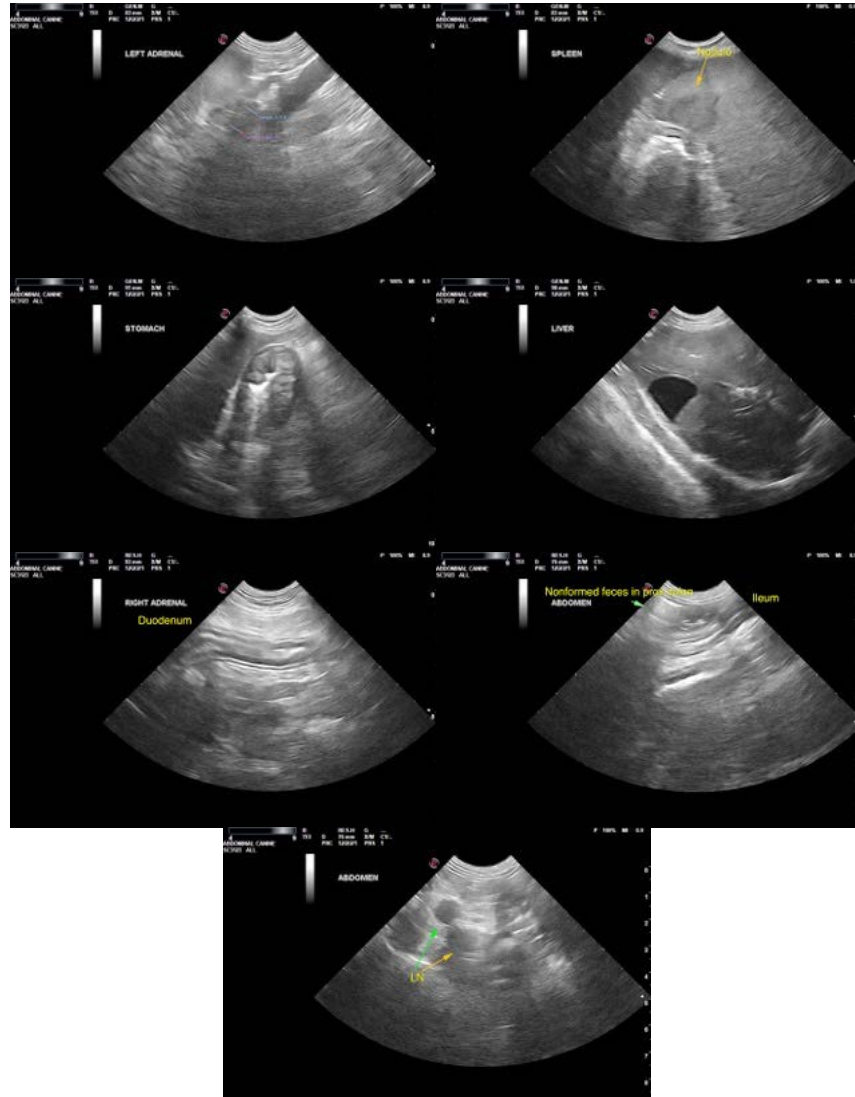
FS

**AGE**

10 years

**WEIGHT**

37 Pounds



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The information and recommendations provided are based on the images presented by the referring veterinarian. 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.

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