



**PATIENT PRESENTING CLINICAL SIGNS**

Rex Snow P presented as a transfer for pancreatitis, elevated AMY/LIP

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Canine Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**BREED**

Redbone Coonhound Mix

Prostate is normal in size, echotexture and echogenicity for a neutered male.

**SEX**

Neutered Male

The right kidney is normal in size (7.6 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**AGE**

9.5 Years

The left kidney is normal in size (6.8 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

**WEIGHT**

31.03 Pounds

The area of the right adrenal gland was examined without evident pathology. The caudal pole is visualized and measures 0.76 cm thick.

The area of the left adrenal gland was examined without evident pathology.

**Spleen**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**IMAGING PERFORMED BY**

Dr. Alyssa Carver

**Liver**

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

**HOSPITAL NAME**

Animal Emergency Hospital of Volusia

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**REFERRING VET**

Dr. Alyssa Carver

**Gastrointestinal**

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The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

**DATE**

9/21/22

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease. (See other).



**PATIENT**

Rex Snow The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**SPECIES** *Pancreas*

Canine The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted.

**BREED** *Free Abdomen*

Redbone Coonhound Mix A scant amount of anechoic free fluid is noted in the cranial abdomen, primarily around the spleen. There is no apparent lymphadenopathy noted in these images.

**SEX**

Neutered Male There is a large amount of markedly enhanced, hyperechoic fat and mesentery in the cranial abdomen, medial to the spleen and caudal to the stomach, all in the area of the pancreas. However, there is also what appears to be a focal loop of bowel in the mid cranial abdomen with a hypoechoic loss of layering that measures 1.1 cm thick. Due to the marked amount of enhanced tissue and fat, clear visualization is difficult, but it is suspected to be a bowel loop.

**AGE**

9.5 Years

**PRIMARY FINDINGS**

- Acute pancreatitis
- The cranial abdominal changes described above are suggestive of cranial abdominal inflammation/peritonitis, possibly secondary to pancreatitis with secondary edematous, inflamed small bowel secondary to the pancreatitis. However, given the suspicion for a focally thickened bowel loop with loss of layering, a primary infiltrative bowel disease (either inflammatory or neoplastic) with a focal peritonitis secondary to that cannot be ruled out.

**SECONDARY FINDINGS**

- **Gallbladder debris** - Cholecytic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecytic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

Several options are available depending on the level of aggressiveness elected to further investigate the suspected thick bowel loop. Options include:

1. Supportive/symptomatic medical management of pancreatitis with antiemetics, gastroprotectants, appetite stimulants, and nutritional support as needed, pain management, broad-spectrum antibiotics, fluid therapy, etc., and recheck the ultrasound upon clinical resolution or in 24-48 hours to monitor that area once the inflammation is down and it is easier to see.
2. More advanced imaging immediately in the form of an abdominal CT scan.

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**PATIENT**

Rex Snow

- The most aggressive option is an exploratory laparotomy for better visualization of the suspected focally thickened bowel and biopsy of the area.

**SPECIES**

Canine

If this patient is painful or has clinical signs that don't respond to supportive/symptomatic care, progressive lab work, etc., then the more aggressive options are recommended. If the patient is stable without the aforementioned clinical signs, etc., a conservative approach could be considered with recheck imaging in 24-48 hours.

**BREED**

Redbone Coonhound  
Mix

**SEX**

Neutered Male

**AGE**

9.5 Years

**WEIGHT**

31.03 Pounds

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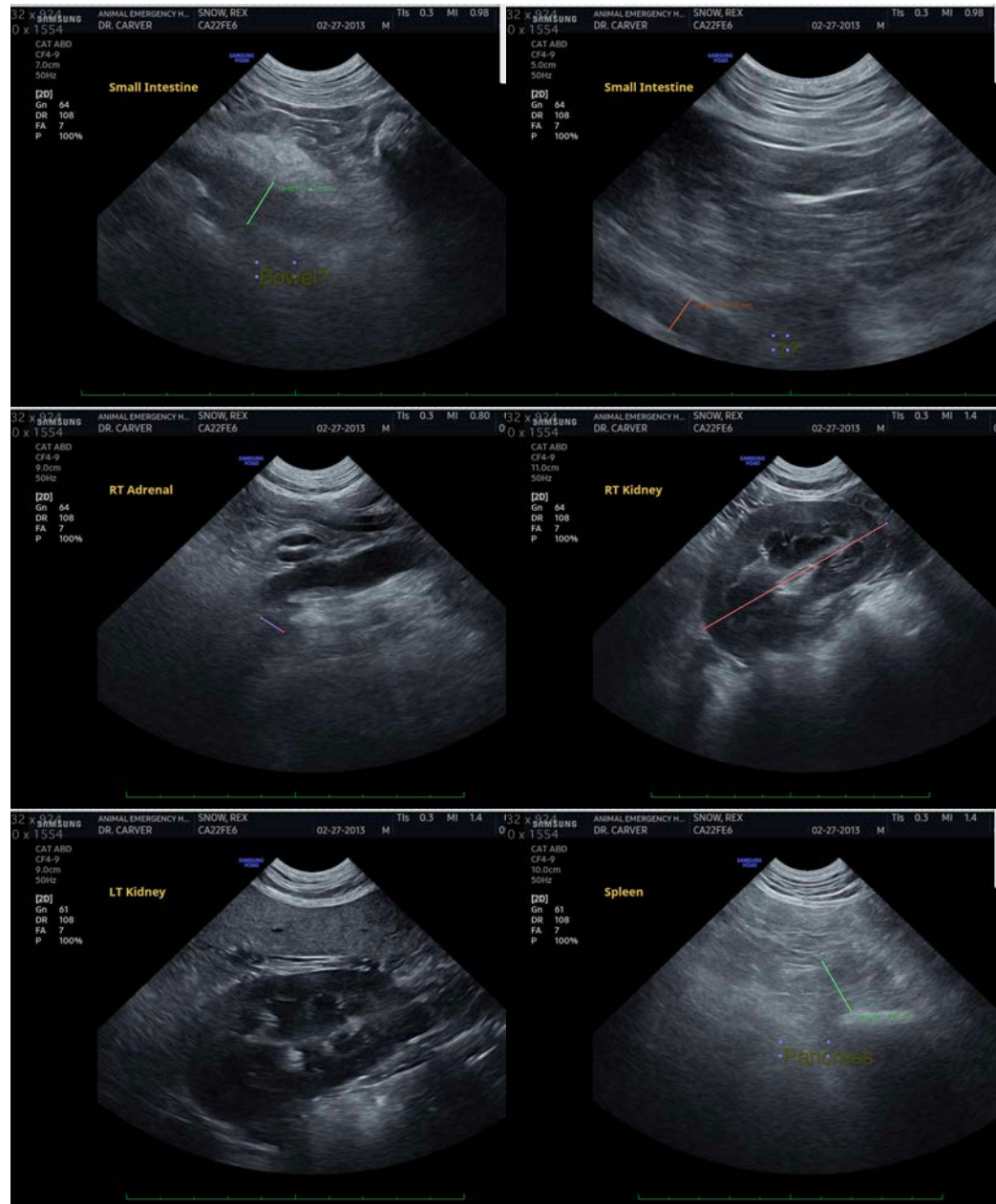
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**SPECIES**

Canine

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Mix

**SEX**

Neutered Male

**AGE**

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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.

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