


**PATIENT PRESENTING CLINICAL SIGNS**

John Snow Hartog

May 2nd-Has a history of stress induced diarrhea. no real signs of discomfort upon palpation but he is stoic. No fluid wave or masses Rectal : Scant mucous stools present in the rectum . Anal erythema - no signs of fistulas May 13th-GPE diarrhea. Diarrhea for weeks, squirting out of him. Metronidazole hasn't had any effect. Hasn't seen a lot of blood or mucous, maybe just a trace amount of blood on occasion. A bit of straining noted but not a lot. Appetite may be a bit down, but has always been a bit of a grazer. No vomiting but recently has been drooling a bit; will drip little bits of drool around the house at home, the past few days. abd palp- wnl, rectal - wnl, other than soft stools on glove and possibly a tiny bit of frank blood on tip of thermometer. Tylosin did not help Feeds Royal Canin Mod Cal- Switched to Royal Canin Low Fat on May 13th- June 8th-Has lost an additional 5lbs and May 2nd-Has a history of stress induced diarrhea. no real signs of discomfort upon palpation but he is stoic. No fluid wave or masses Rectal : Scant mucous stools present in the rectum . Anal erythema - no signs of fistulas May 13th-GPE diarrhea. Diarrhea for weeks, squirting out of him. Metronidazole hasn't had any effect. Hasn't seen a lot of blood or mucous, maybe just a trace amount of blood on occasion. A bit of straining noted but not a lot. Appetite may be a bit down, but has always been a bit of a grazer. No vomiting but recently has been drooling a bit; will drip little bits of drool around the house at home, the past few days. abd palp- wnl, rectal - wnl, other than soft stools on glove and possibly a tiny bit of frank blood on tip of thermometer. Tylosin did not help Feeds Royal Canin Mod Cal- Switched to Royal Canin Low Fat on May 13th- June 8th- Has lost an additional 5lbs and a firm abdominal mass was felt  
 Abnormal PE/Chem/CBC/UA Results: Blood Work, Urinalysis and Diarrhea Real PCR Panel run and NSF

**SPECIES**

Canine

**BREED**

Shep X

**SEX**

Neutered Male

**AGE**

9 Years

**WEIGHT**

98 Pounds

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**
**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. In the dependent portion of the urinary bladder, there is a small area of hyperechoic shadowing debris, most consistent with sandy debris or small calculi.

The prostate is normal in size and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.69 cm) with pinpoint non-obstructive nephroliths. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.7 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is large in size measuring 0.90 cm at the cranial pole, 1.49 cm at the caudal pole, and 1.21 cm in length. It is observed in its normal position cranial to the left renal artery. It is abnormal in appearance in that it is large, and there are hyperechoic nodule in both poles of the adrenal gland. There is no obvious evidence of vascular invasion.

The right adrenal gland is normal in size measuring 0.77 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

**INTERPRETED BY**

 Kathleen Sennello DVM,  
 MS, Diplomate ACVIM  
 (Small Animal Internal  
 Medicine)

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

Southside Pet Hospital

**REFERRING VET**

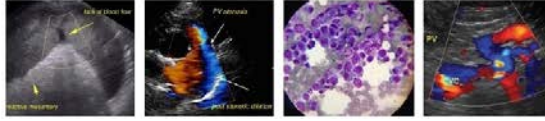
Dr. Hughes

**INVOICE**

38574

**DATE**

6/9/22



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**Spleen**

The spleen is large and irregular in shape. The spleen echotexture is heterogenous and mottled. The blood flow through the hilus and splenic parenchyma appears normal. There is a small hypoechoic nodule visualized within the parenchyma measuring 1.19 cm. The spleen appears to be curled upon itself within the abdomen.

**Liver**

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

**Gastrointestinal**

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

**Pancreas**

The area of the pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

**Free Abdomen**

There is no free fluid. There are irregular lymph nodes visualized at the trifurcation measuring 0.93 cm and 0.70 cm. Additionally, there is some abnormal tissue in the left cranial abdomen, most consistent with lymphoid tissue measuring 1.7 cm in diameter, and there is an isoechoic rounded lesion adjacent to the spleen measuring 1.5 cm in diameter, which is most consistent with a lymph node or daughter spleen. The omentum is of increased echogenicity around the abnormal lymph nodes.

**Other**

A brief view of the heart was submitted. No significant pericardial effusion was seen.

**ULTRASONOGRAPHIC FINDINGS**

- Sandy debris/small calculi in the dependent portion of the urinary bladder – recommend urinalysis and culture. Correlate with abdominal radiographs.
- Large, irregular left adrenal gland with hyperechoic nodules in both poles of the adrenal gland –



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Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

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- Large, mottled spleen with hypoechoic nodule – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

**BREED**

Shep X

- Prominent sublumbar lymph nodes and mesenteric lymph nodes – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**SEX**

Neutered Male

The left adrenal gland is large and has nodules in the cranial and caudal pole. The significance of these lesions is unclear. These nodules could represent a benign or malignant process and can secrete hormones or be non-active. Options moving forward to evaluate these include:

**AGE**

9 Years

- If signs of cushings are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)

**WEIGHT**

98 Pounds

- If adrenal dependent cushings is suspected and supported by adrenal function testing consider medical therapy with lysodren or trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication

**INTERPRETED BY**

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(Small Animal Internal  
Medicine)

- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma

**IMAGING PERFORMED BY**

Kelly Reschny

- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.
- If no symptoms of cushings are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.

**HOSPITAL NAME**

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- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

Sandy calculi and small stones are visualized within the urinary bladder. Recommend a urinalysis, culture and radiographs to correlate the presence of these stones and to try and determine if a cystotomy would be recommended (there is risk for obstruction, but the stones/debris are very small).

**REFERRING VET**

Dr. Hughes

Unfortunately, I suspect that the previous findings are unrelated to the current symptoms of weight loss and chronic diarrhea. No focal gastrointestinal lesions were observed. There are some abnormal lymph nodes in the abdomen, and there is abnormal tissue in the left cranial abdomen, which could be lymphoid or of some other origin. A fine needle aspirate of this structure could be considered.

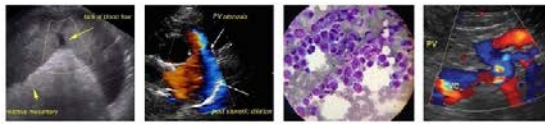
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The spleen is large and mottled with a hypoechoic nodule. A fine needle aspirate of this structure would be recommended to try and look for possible round cell neoplasia. This problem has already been primarily worked up and treated symptomatically. In general, I tend to put these dogs on a novel protein/hydrolyzed protein prescription diet, chronic probiotic therapy, deworm them, and I will often

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send out a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to look for exocrine pancreatic insufficiency, B12 deficiency, dysbiosis, etc.

**SPECIES**

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When this symptomatic therapy is not effective, and additional diagnostic testing does not provide a diagnosis (cytology, etc.), I typically would consider obtaining GI biopsies. In this case, it sounds like there is some element of large and small bowel diarrhea present.

**BREED**

Shep X

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

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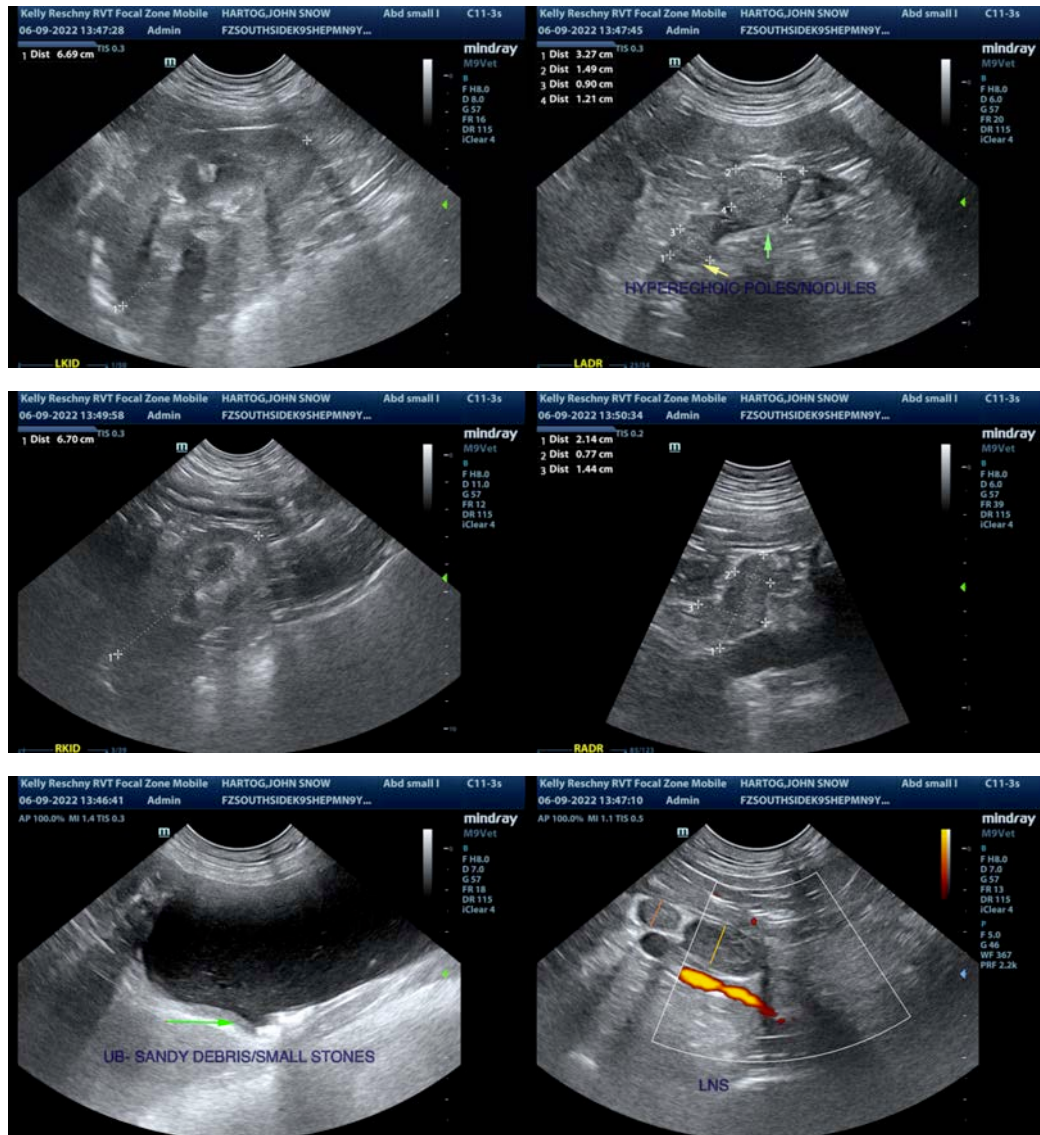
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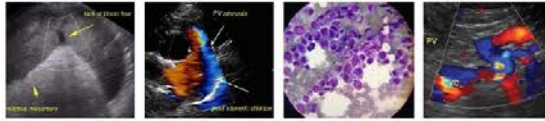
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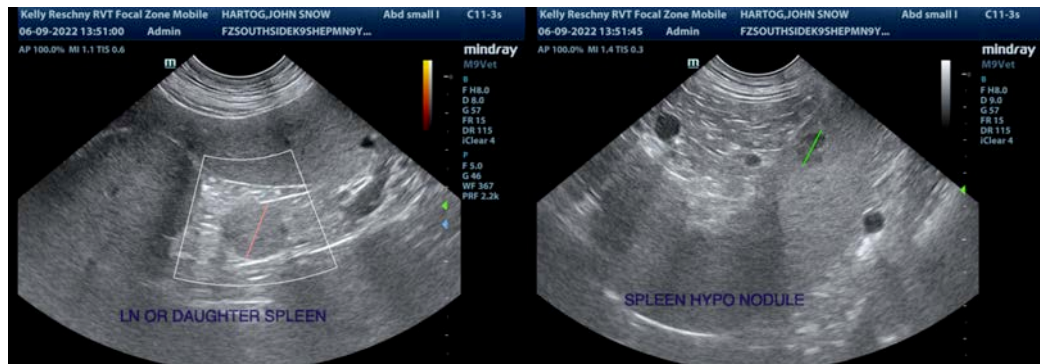
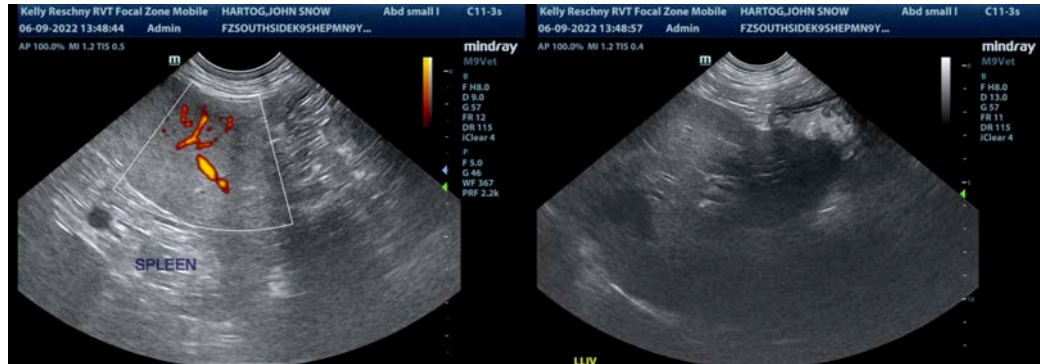
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)

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