



**PATIENT**

Harley Hammond

**SPECIES**

Canine

**BREED**

Pit Bull

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

25.4 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Schwanebeck

**HOSPITAL NAME**

Animal Emergency  
Hospital Deland

**REFERRING VET**

Dr. Schwanebeck

**INVOICE**

46033

**DATE**

3/21/23

**PRESENTING CLINICAL SIGNS**

Presented to clinic for PU/PD past 2 days. Patient had diarrhea 1 week after rolling in opossum feces and then eating it, but otherwise no major medical history. Feeding Science Diet 7+ and occasionally gets fruit as treats. Normal appetite and no vomiting.

Abnormal PE/Chem/CBC/UA Results: EPOC: Mild hypocalcemia, hyperglycemia Chem: Mild hyperproteinemia, hyperglycemia (374), elevated ALP (420), GGT(60), and t.bili(2.0) Moderate ketones present on urine and plasma

**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, masses or cystic calculi.

The left kidney has a normal shape and size (7.29 cm) with mild pyelectasia at 0.26 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (6.75 cm) but slightly irregular in shape (likely due to previous infarcts). Mild pyelectasia noted at 0.15 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is some mildly hyperechoic tissue surrounding the caudal pole of the kidney. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.59 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect is visualized.

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**Liver**

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. 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 mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.



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**Gastrointestinal**

The stomach contains moderate shadowing ingesta. 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. Duodenum wall measures 0.48 cm. Jejunum wall measures 0.28 cm. 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**

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

**ULTRASONOGRAPHIC FINDINGS**

- Mild bilateral renal pyelectasia with a previous infarct in the right kidney – Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Moderate shadowing ingesta within the gastric lumen – Correlate with the feeding history and abdominal radiographs. If the patient was adequately fasted consider such differentials as delayed gastric emptying, a partial outflow tract obstruction (none seen) or ingested foreign material.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No focal mass lesions or evidence of pancreatitis is visualized on today's exam. Based on the history provided, this could very well be a case of diabetic ketoacidosis with a diabetic hepatopathy and mild renal pyelectasia secondary to PU/PD +/- pyelonephritis. Recommend a urinalysis and culture and treatment for DKA with close continued monitoring to ensure the need for insulin persists. Additionally, recommend an ionized calcium and continued monitoring of the bilirubin. If this elevation persists with no evidence of hemolysis or lipemia, then consider the possibility of a primary hepatopathy, and consider the possibility of a fine needle aspirate of the liver (provided coagulation parameters are normal).



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There is shadowing material visualized within the gastric lumen. Correlate this with the feeding history and abdominal radiographs. This could be consistent with normal ingesta, or if the patient was adequately fasted, delayed gastric emptying or even ingested foreign material.

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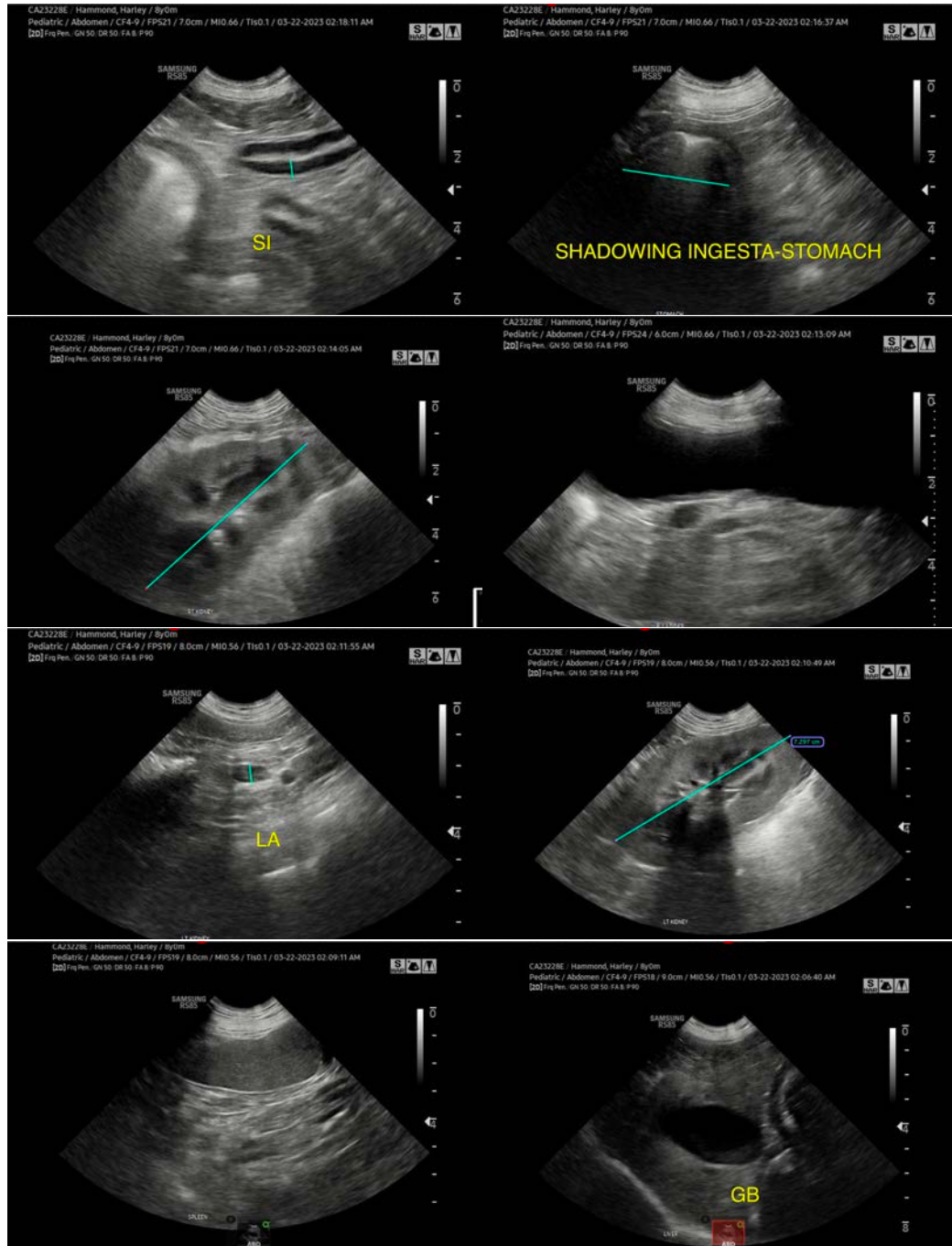
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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