



**PATIENT**

Billy Griffith

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

16 Years

**WEIGHT**

5.3 kg

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Erin Wicks

**HOSPITAL NAME**

Shores VEC

**REFERRING VET**

Dr. Lupole

**INVOICE**

41683

**DATE**

9/27/22

**PRESENTING CLINICAL SIGNS**

Presented at our hospital for vomited tonight when O got home from work, refusing food and very lethargic tonight. Laying on side and trying to get away from O- very unusual for pt. Previous Health Concerns: early liver/kidney disease Current Medications: Aluminum hydroxide, renndyl, methyl cobalamin, blood pressure meds

Abnormal PE/Chem/CBC/UA Results: Temp: 97.7 F Abdominal: Palpable gastric distention, reactive to abdominal palpation Radiographs – gastric distention, hepatomegaly, pulmonary nodule right caudal lung lobe, alveolar pattern left lung lobe; pleural fissure line on lateral, bates body caudal abdomen at descending colon EPOC – K (2.9) Cl (98) iCa (0.98) Lactate (10.36) BUN (86) Creat (4) Gluc (155) HCT (54)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (4.63 cm). Overall echogenicity is slightly hyperechoic with poor 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.25 cm). Overall echogenicity is slightly hyperechoic with poor 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.38 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. There are small mineralized foci visualized within the parenchyma.

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.

**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 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. There is a 0.93 cm cystic structure visualized.

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 is significantly dilated with fluid and irregular shadowing material, which could be consistent with ingesta or ingested foreign material. It measures at a normal thickness of <0.36cm 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. There is the suspicion of shadowing material visualized within the region of the pylorus, which could be consistent with a pyloric outflow tract obstruction.

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 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 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**

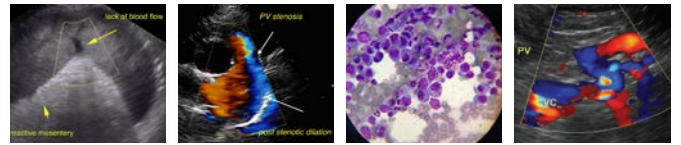
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

**ULTRASONOGRAPHIC FINDINGS**

- Cystic structure visualized within the hepatic parenchyma – findings are most consistent with a benign hepatic cyst.
- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Echogenic debris within the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Severe fluid distention of the gastric lumen with intraluminal shadowing material, which could be consistent with ingesta or ingested foreign material. Additionally, there is the impression of shadowing material visualized within the pyloric region. Findings could be consistent with a pyloric outflow tract obstruction.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The changes observed in the kidneys are most consistent with chronic age related renal disease. The echogenic debris in the urinary bladder is mild. Recommend a urinalysis and culture. The stomach is severely dilated with fluid and shadowing ingesta/foreign material. This could be consistent with gastric ileus and lack of progressive motility, but I do not see any evidence of distal bowel dilation, so there is concern for a pyloric outflow tract obstruction and some shadowing foreign material visualized in the



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region of the pylorus. Recommend stabilization of this patient with initial rehydration and treatment of the hypokalemia. Once stabilized, if repeat radiographs show persistent gastric distention, you could consider the possibility of surgery to evaluate for a gastric outflow tract obstruction. If none is visualized, recommend biopsies of the GI tract and liver.

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The significance of the pulmonary nodule is unknown. This could represent a primary pulmonary nodule or less likely a metastatic lesion.

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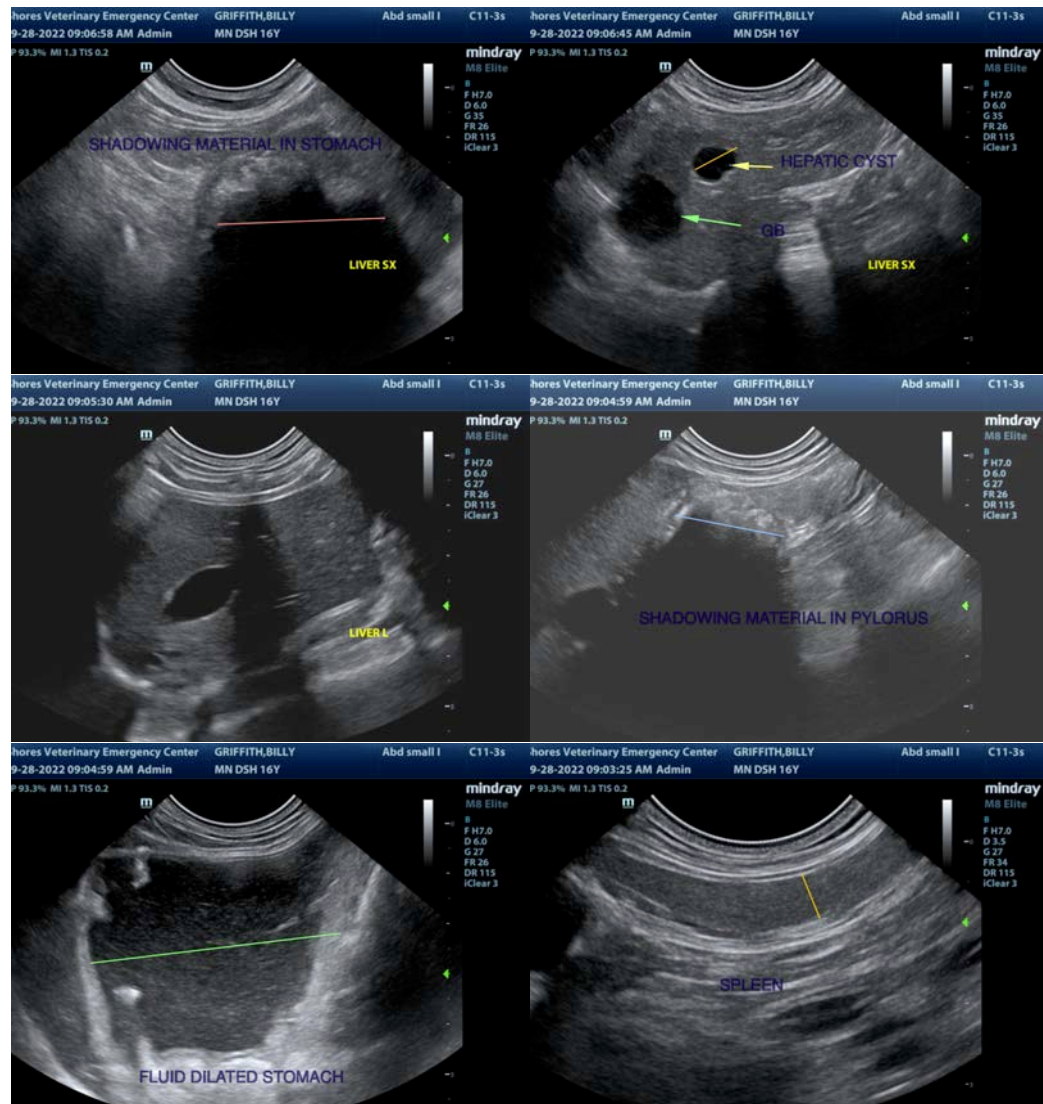
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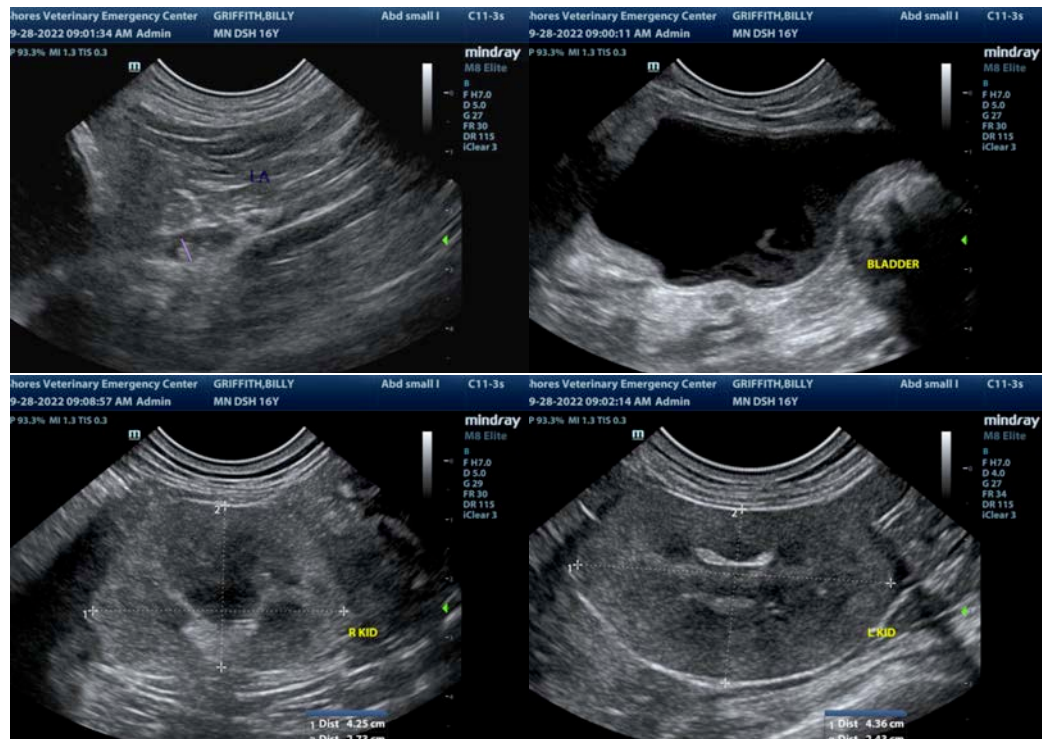
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

kathleen.sennello@sonopath.com