

DATE PRESENTING CLINICAL SIGNS

2/17/23

PATIENT

Debbie Gerred

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

11/4/09

WEIGHT

8.4 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency
Hospital

REFERRING VET

Dr. Kalwa

INVOICE

21133

History: rDVM phone call: Debbie Gerred 14 yr FS DSH Cat 8.4 lb PC: Vomiting bile, O thought urinating blood, In bedroom since tuesday, not eating 2-3 days, No BM 2-3 days, vomiting liquid tuesday, hiding not sleeping in bed. Started clavamox tuesday+ 100 CC SQ fluids + Mirtazapine 14th and 15th PE- quiet, skinny- april last year 10.8 lbs, Soft abdomen - Lost muscle Muscle score 1, BCS 3/9 Labs: Newly diagnosed Hyperthyroid, renal compromise- SDMA 16, BUN 53, Crea 0.4, Stress hyperglycemia 179, Low calcium, WBC 22k, Neu 16km Bands suspected, low monocytes, low eosinophils Convenia injection Plan for IVF, supportive care Xray- no constipation, gas in colon, SI collapsed, stomach some fluid with AUS, little stones in urinary bladder UA- sending out urinalysis and urine culture- urine was cloudy

Current Medications: Clopidogrel, Mirtazapine, Cerenia, Elura, Vitamin B12, Omeprazole, Gabapentin, Provable, Buprenorphine.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Rachel Brillhart, RDMS.

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 2.0 cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The left kidney has a normal shape and size (4.36 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 (4.23 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal. Mild pyelectasia is noted, measuring 0.21 cm.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.61 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 right adrenal gland is normal in size measuring 0.53 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.

Spleen

The spleen is subjectively normal in size (0.77 cm), 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. No focal nodules or cystic lesions are observed.

The gall bladder 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 proximal bile duct/cystic duct appear somewhat dilated and tortuous, measuring at 0.3 cm. No distal dilation is noted.

Gastrointestinal

The stomach is significantly distended and contains a large amount of fluid. It measures at a normal thickness of <0.36 cm 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 0.13 - 0.38 cm in wall thickness) and the jejunum measured as normal (0.24 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 region 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 visible mesenteric lymph nodes, measuring 0.29 cm and 0.52 cm. The omentum is of normal echogenicity.

Thorax

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted. There is no evidence of pleural effusion or pulmonary nodules visualized on a brief evaluation of the thorax.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Significantly fluid distended stomach. No focal lesions are visualized associated with the stomach and no evidence of an obstruction is visualized (but cannot be definitively ruled out). Consider ileus as a primary differential.
- Visible/mildly prominent mesenteric lymph nodes. The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

Secondary Findings

- Decreased corticomedullary distinction in both kidneys and mild right sided pyelectasia. The bilateral renal findings are consistent with age-related change. Pyelectasia of the right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Prominent, mildly tortuous cystic duct. Dilation of the common bile duct could be consistent with a functional obstruction (i.e., primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (i.e., choledocholith, bile duct tumor, pancreatic disease, other). This could be a normal finding in some older cats

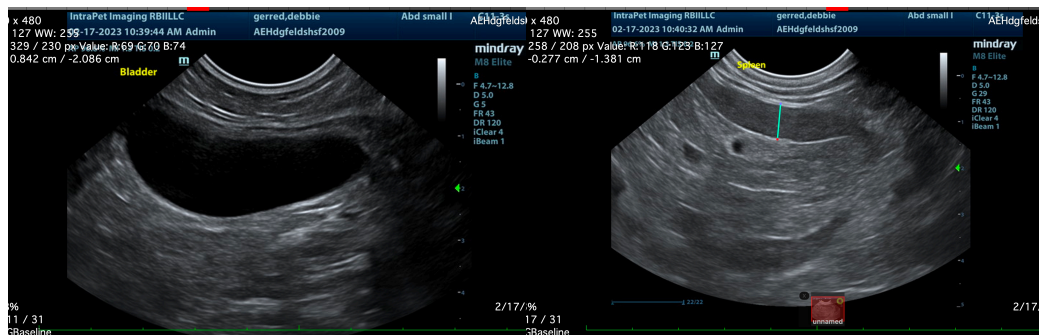
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The stomach appears significantly distended and fluid dilated on today's exam. Correlate this with the feeding history/drinking history and abdominal radiographs. No obvious obstruction of outflow tract is visualized but this cannot be definitively ruled out. Consider promotility medication and serial imaging, looking for resolution of the distention, if this has not happened. You could consider endoscopy or surgery to look for an outflow tract obstruction and obtain GI biopsies. No other focal lesions are visualized associated with the gastrointestinal tract to explain the vomiting reported. Unfortunately, there are many causes for vomiting, which cannot be diagnosed by ultrasound alone.

Consider such differentials as food allergy/dietary intolerance, GI parasitism, chronic pancreatitis, IBD and less likely neoplasia, etc.

- Consider a novel protein/hydrolyzed protein diet (exclusively at least 4-6 weeks)
- Consider a GI panel to Texas A&M for evaluation of B12 levels, folate, PLI/TLI etc.. to further evaluate for pancreatic/small intestinal disease.
- Recommend chronic probiotic therapy
- Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.
- If symptoms persist despite taking these measures and primary gastrointestinal disease is strongly suspected, consider biopsies/further evaluation of the GI tract.

Consider an ionized calcium to evaluate the hypocalcemia reported.



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