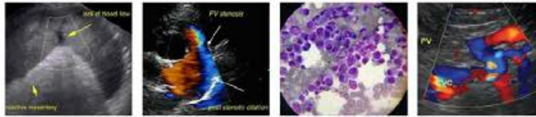
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Buster Hooker

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

11 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Brighton Greens VH

REFERRING VET

Dr. Robin Janeway

INVOICE

26257

DATE

10/13/21

PRESENTING CLINICAL SIGNS

History- First evaluated 10/6 for ADR since 10/1/2021. For lethargy, nausea, drooling, PU/PD. Panting weak hind end and coughing more esp when laying down. Grade 2/6 systolic murmur, panniculus response, tense for abdominal palpation, lethargy. Rads 10/6 Radiographic Findings Whole body radiographs are supplied. The cardiac silhouette is not overtly enlarged, nor is there particular chamber enlargement. Pulmonary vascular and parenchymal character is normal. Thoracic spinal abnormalities are not defined. The stomach appears empty and contracted except for mild gas. There is concern for diffuse gastric wall thickening. The small bowel contains scattered gas and fluid with distention, but without evidence of dilatation or plication. The distal colon contains formed feces which contains small gravel debris. Larger size radiopaque G.I. foreign material is not identified. The liver is of normal size and shape. The spleen is also of normal size and shape. The urinary bladder is apparently empty. There is the impression of slightly small renal size bilaterally. The lumbar spine is negative for abnormalities except for mild spondylosis at L1-L2, equivocal for clinical significance. Coxofemoral and pelvic character is normal bilaterally. Conclusion Normal cardiopulmonary structures, with no radiographic impression of cardiomegaly. Gastroenteritis bowel pattern with evidence of dietary indiscretion with small gravel debris within formed colonic feces. There is concern for possible diffuse gastric mural thickening. This could be associated with gastritis, however, the possibility of infiltrative gastric mural disease (could include neoplasia) should be considered | Noted thickened stomach on in house u/s. Rx sucralfate ½ g PO TID Rx omeprazole 5mg PO SID Pt not improving 10/10 recheck Chem 12 BUN 43, Creat 1.6. Placed IV catheter and administered IV LRS for supportive care. Rx methocarbamol ¼ x 500mg tab PO TID Rx prednisone ½ x 5mg tab PO BID Recheck 10/11 Pt much brighter, maintained on IV fluids through the day, vocalizing. Radiographic Findings The examination is compared to that dated October 6, 2021. Detail is satisfactory, including the region of the pancreas. The stomach currently appears mildly distended with mild fluid and suspected some soft tissue opacity food character ingesta. The small bowel contains scattered gas and granular chyme with a distended postprandial character. There is moderate formed feces of normal character within the colon. Radiopaque G.I. foreign material is not defined. The liver appears mildly diffusely enlarged on the current examination. There is again the impression of slightly small renal size, bilaterally. The urinary bladder is apparently empty. Conclusion There is a radiographically normal and active character to the G.I. tract. Radiopaque G.I. foreign material is not identified. Radiographic abnormality to suggest pancreatic disease is not defined. Impression of mild hepatomegaly. There is again the impression of chronic renal disease with slightly small renal size. Steve Harnagel, DVM, DACVR | Pt appears to have decreased vision per owner. No menace response but normal PLR and pt is able to consistently maneuver an obstacle course.
Abnormal PE/Chem/CBC/UA Results: 10/6 Chem 12/lytes/CBC BUN 29, Creat 1.4, Glob 1.9. otherwise NSF Urine culture negative. Gastrin levels sent to the lab, pending. Resting cortisol to the lab = 1.9

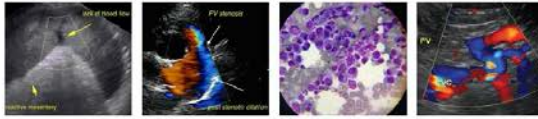
ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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 prostate is normal in size (0.79 cm) 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 (3.74 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of



PATIENT

Buster Hooker

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

11 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Brighton Greens VH

REFERRING VET

Dr. Robin Janeway

INVOICE

26257

DATE

10/13/21

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 (4.1 cm). Overall echogenicity is slightly hyperechoic with poor 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 normal in size measuring 0.52 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 0.38 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, 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 borderline large in size, and normal 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 primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

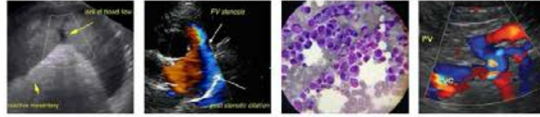
The stomach contains minimal luminal contents. It measures primarily at a normal thickness, but in some areas the gastric wall appears prominent with mildly diminished layering measuring up to 0.93 cm (less than 0.7 cm is normal) with some variability due to the presence of rugal folds. There is no impression of reduced peristaltic activity, and 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. Jejunum wall measured 0.25 cm. Duodenum wall measured 0.48 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 pancreas is prominent and mottled compared to the surrounding isoechoic mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.



PATIENT

Buster Hooker

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

11 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Brighton Greens VH

REFERRING VET

Dr. Robin Janeway

INVOICE

26257

DATE

10/13/21

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. No lymphadenomegaly present. 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

- Decreased corticomedullary distinction both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Borderline enlarged 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.
- Subjectively thickened gastric wall – The stomach wall thickening could be consistent with inflammation, edema, infiltrative neoplasia, imaging artifact due to rugal folds, other.
- Prominent, mottled pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

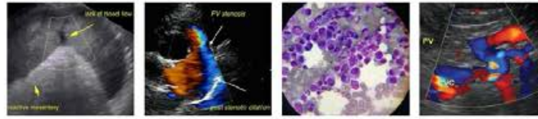
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal mass lesions or obvious lesions responsible for the reported anorexia and nausea visualized. There are chronic progressive kidney changes most consistent with chronic disease. Recommend urinalysis and culture and blood pressure evaluation to look for any evidence of recent complications. Urine protein/creatinine ratio also recommended.

Additionally, the liver is somewhat heterogeneous. This is a non-specific finding, which can be age related, but if there are liver enzyme elevations present, the consider fine needle aspirate and liver function test.

Some areas of the gastric wall appear somewhat thickened. This could be a very subjective finding, as partially obliqued views wil exaggerate the thickness of the gastric wall. However, given the symptoms and the lack of response to therapy, you could consider upper GI endoscopy to evaluate the stomach wall or surgical biopsies. No focal mass lesions are observed.

It is also possible to have significant small intestinal disease without significant ultrasonographic findings being observed. You could consider submitting a GI panel to Texas A&M for quantitative PLI, TLI, cobalamin and folate to further evaluate for pancreatic inflammation and small intestinal disease. If there is significant evidence of intestinal disease present on this panel, I would consider obtaining gastric and small intestinal biopsies.



PATIENT

Buster Hooker

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

11 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Brighton Greens VH

REFERRING VET

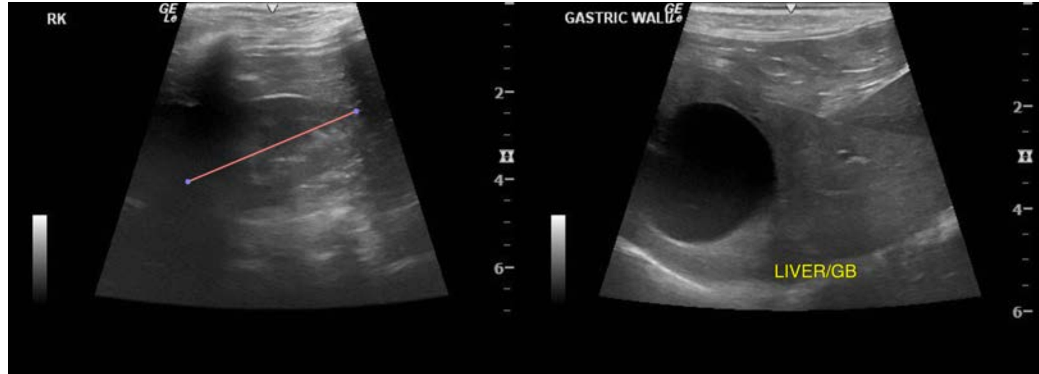
Dr. Robin Janeway

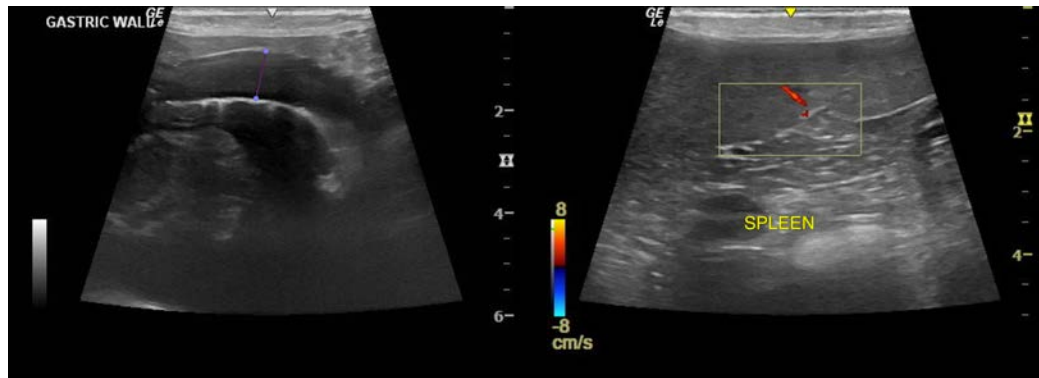
INVOICE

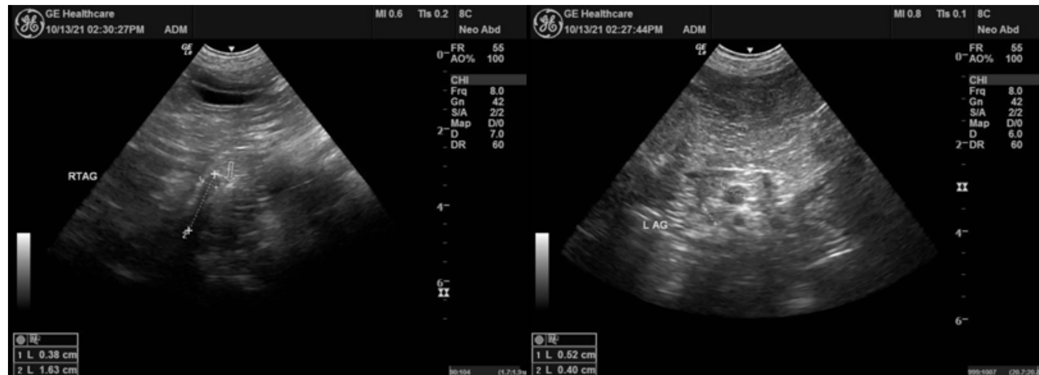
26257

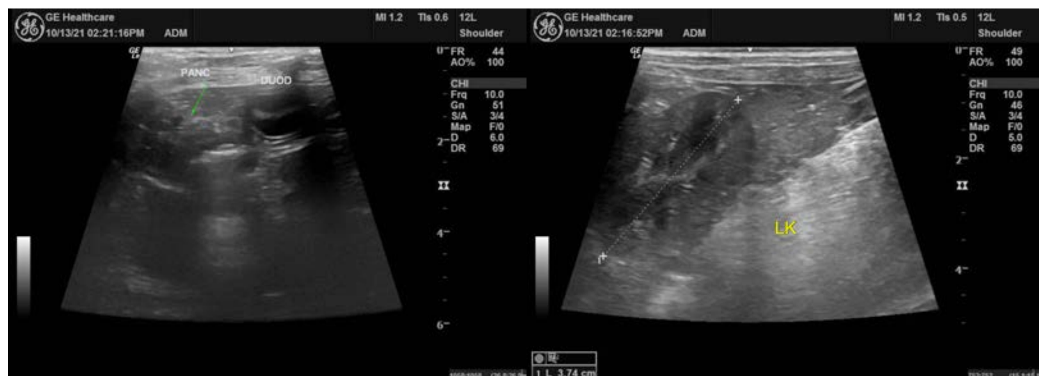
DATE

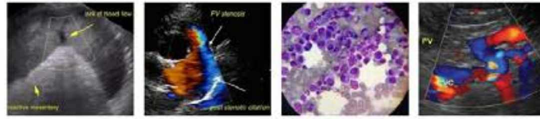
10/13/21











PATIENT

Buster Hooker

SPECIES

Canine

BREED

Havanese

SEX

Neutered Male

AGE

11 Years

WEIGHT

15 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, RVT

HOSPITAL NAME

Brighton Greens VH

REFERRING VET

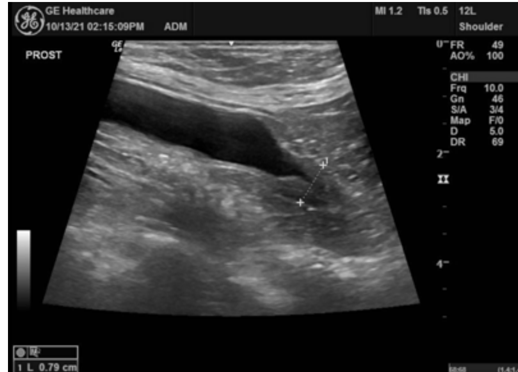
Dr. Robin Janeway

INVOICE

26257

DATE

10/13/21



The information and recommendations provided are based on the images presented by the referring veterinarian. 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