



PATIENT

Amber Delia

PRESENTING CLINICAL SIGNS

Chronic intermittent inappetence, Vomiting bile; E.coli UTI Current meds: enrofloxacin 68mg
Abnormal PE/Chem/CBC/UA Results: PLT 485, Crea 1.8, K 5.6, BUN/Urea 45

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

BREED

Shih Tzu

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 one view, there is a small, hyperechoic, mildly shadowing structure measuring 0.45 cm. This is most consistent with either hyperechoic, partially mineralized debris, or could even be material outside of the urinary bladder (associated with the colon?). Correlate with abdominal radiographs and considered re-evaluation post-treatment of the urinary tract infection.

SEX

Spayed Female

The left kidney has a normal shape and size (4.21 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.

AGE

13 Years

The right kidney has a normal shape and size (4.55 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.

WEIGHT

20 Pounds

Adrenal Glands

INTERPRETED BY

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

The left adrenal gland is normal in size measuring 0.55 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 0.44 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.

IMAGING PERFORMED BY

Jessica Miller

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.

HOSPITAL NAME

Summit Dog & Cat
Hospital

Liver

The liver is subjectively normal in size, and 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.

REFERRING VET

Dr. Traci Vogler

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

INVOICE

36224

DATE

3/16/22



PATIENT

Gastrointestinal

Amber Delia

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.

SPECIES

Canine

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.)

BREED

Shih Tzu

Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

SEX

Spayed Female

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

AGE

13 Years

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

WEIGHT

20 Pounds

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.

PRIMARY FINDINGS

INTERPRETED BY

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

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.
- 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. If liver values are normal, this could be consistent with age related change.
- Moderate gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Summit Dog & Cat
Hospital

SECONDARY FINDINGS

REFERRING VET

Dr. Traci Vogler

- Questionable hyperechoic shadowing focus within the urinary bladder – This could be consistent with a mineralized focus of debris, etc.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

INVOICE

36224

There is no obvious lesion identified to explain the decrease in appetite and vomiting reported. The changes observed in the kidneys and liver are likely age related. In one view of the urinary bladder, there was a hyperechoic, mildly shadowing focus. This was not consistent in all views, so could be consistent with a small amount of mineralized debris or artifact.

DATE

3/16/22

Unfortunately, there are many causes for vomiting that cannot be definitively diagnosed by ultrasound



PATIENT

Amber Delia

alone. If metabolic disease seems unlikely, then consider primary GI causes for the vomiting. Consider differentials such as food allergy/dietary intolerance, dietary indiscretion, IBD, and less likely intestinal neoplasia.

SPECIES

Canine

- Consider a novel protein/hydrolyzed protein prescription diet.
- Consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- If symptoms persist, you may consider upper GI endoscopy to evaluate the stomach and obtain upper GI biopsies.

BREED

Shih Tzu

Recommend re-evaluation of the urinary bladder after treatment to ensure that there is not a small stone present.

SEX

Spayed Female

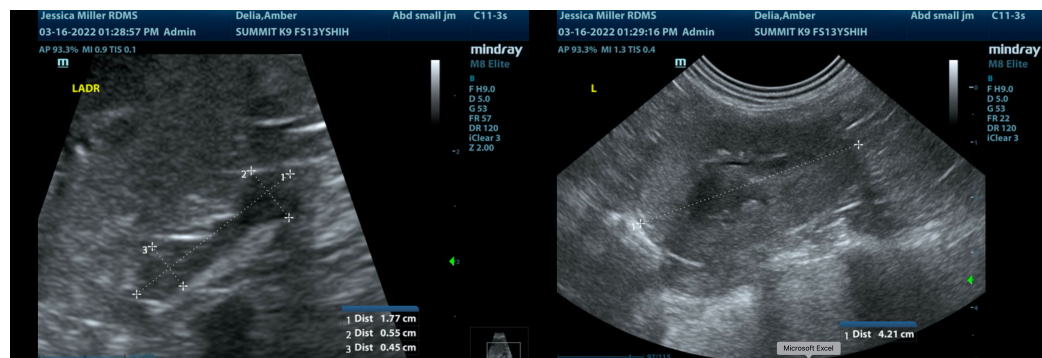
Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

AGE

13 Years

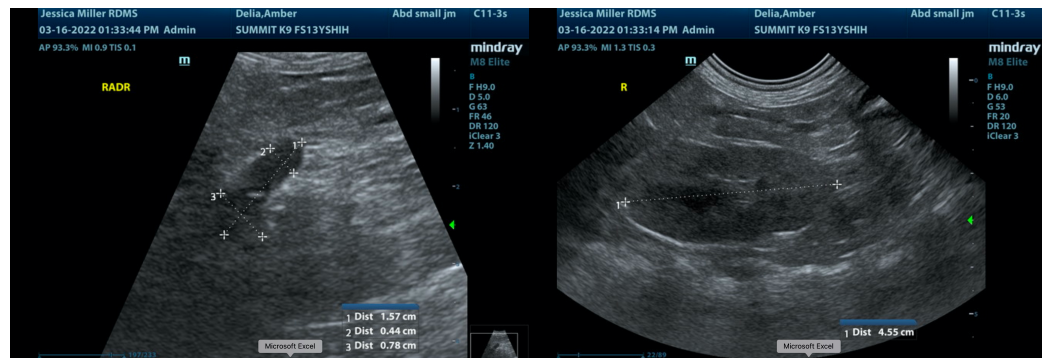
WEIGHT

20 Pounds



INTERPRETED BY

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

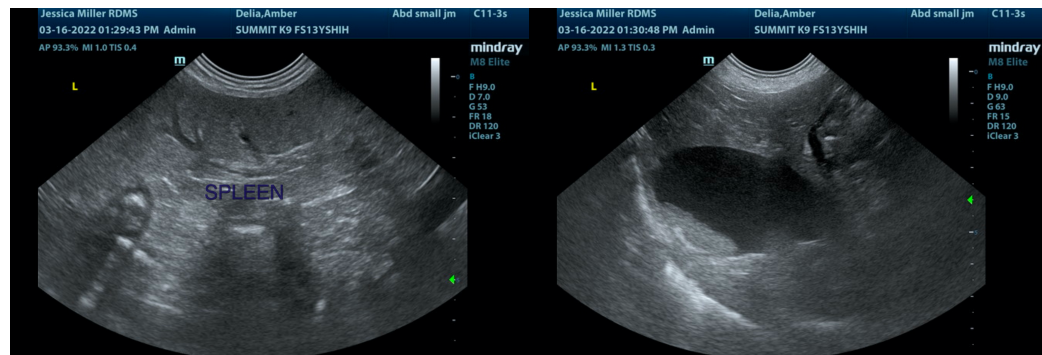


IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Summit Dog & Cat Hospital



REFERRING VET

Dr. Traci Vogler

INVOICE

36224

DATE

3/16/22



PATIENT

Amber Delia

SPECIES

Canine

BREED

Shih Tzu

SEX

Spayed Female

AGE

13 Years

WEIGHT

20 Pounds

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Jessica Miller

HOSPITAL NAME

Summit Dog & Cat
Hospital

REFERRING VET

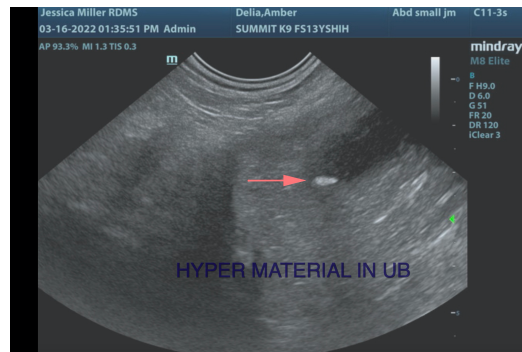
Dr. Traci Vogler

INVOICE

36224

DATE

3/16/22



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