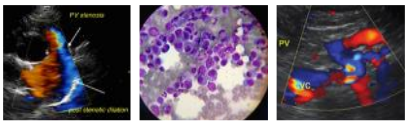
IMAGING PERFORMED BY

IntraPet.com



SonoPath

Clinical Sonography & Telecytology

EDUCATIONAL TELECONSULTATION SERVICES™

1-800-838-4268 info@sonopath.com SonoPath.com

DATE

3/9/22

PATIENT

Zoey Carvello

SPECIES

Canine

BREED

Chihuahua X

SEX

FS

AGE

10/5/2013

WEIGHT

11.4 lbs.

INTERPRETED BY

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

HOSPITAL NAME

Eastern Animal Hospital

REFERRING VET

Dr. Cusak

INVOICE

13472

PRESENTING CLINICAL SIGNS

Presented for vomiting, inappetence and PU/PD for 1 week. PE: dental tartar, mild dehydration, remainder unremarkable.

Current Medications: Cerenia 1mg/kg SQ once on 3/2/22, Entyce 3mg/kg SID intermittently since 3/2/22, Omeprazole 1mg/kg BID since 3/2/22.

Lab Results: HCT 62%, Creatinine 2.0, magnesium 2.7, psl 181. UA- USG 1.025, pH 6, protein 2+, glucose 1+, trace ketones, blood 1+.

Radiographs: Hepatomegaly, splenomegaly, SI fluid and gas filled no obvious obstructive pattern but clear evidence of at least enteritis, gas filled colon, kidneys have focal increased opacities, remainder WNL.

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, measuring 3.79 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Pinpoint, nonobstructive nephroliths were present. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size, measuring 3.65 cm. Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Pinpoint nonobstructive nephroliths are present. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.56 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 borderline large in size measuring 0.84 cm at the cranial pole, 0.55 cm at the caudal pole, and 1.65 cm in length. It is located in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is slightly abnormal in appearance in that the cranial pole appears mildly enlarged and irregular. There is no evidence of vascular invasion or inflammation.

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. 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 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. The duodenum measured as normal (0.24 cm in wall thickness) and the jejunum measured as normal. 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.

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

Primary findings

- Prominent mottled pancreas - The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

Secondary findings

- Prominent right adrenal gland - The adrenal gland is not overtly enlarged, just slightly irregular in shape. Recommend continued monitoring.
- Small pinpoint nonobstructive nephroliths visualized in both kidneys - The hyperechoic mineralized foci observed at the corticomedullary junction of both kidneys are consistent with small, non-obstructive nephroliths.

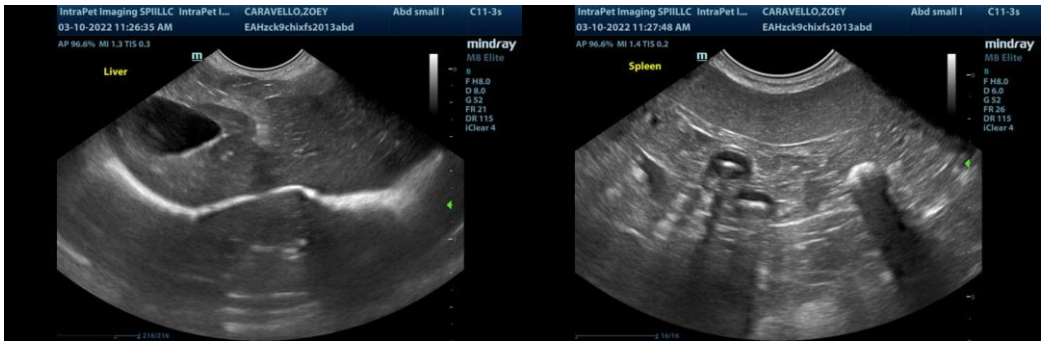
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

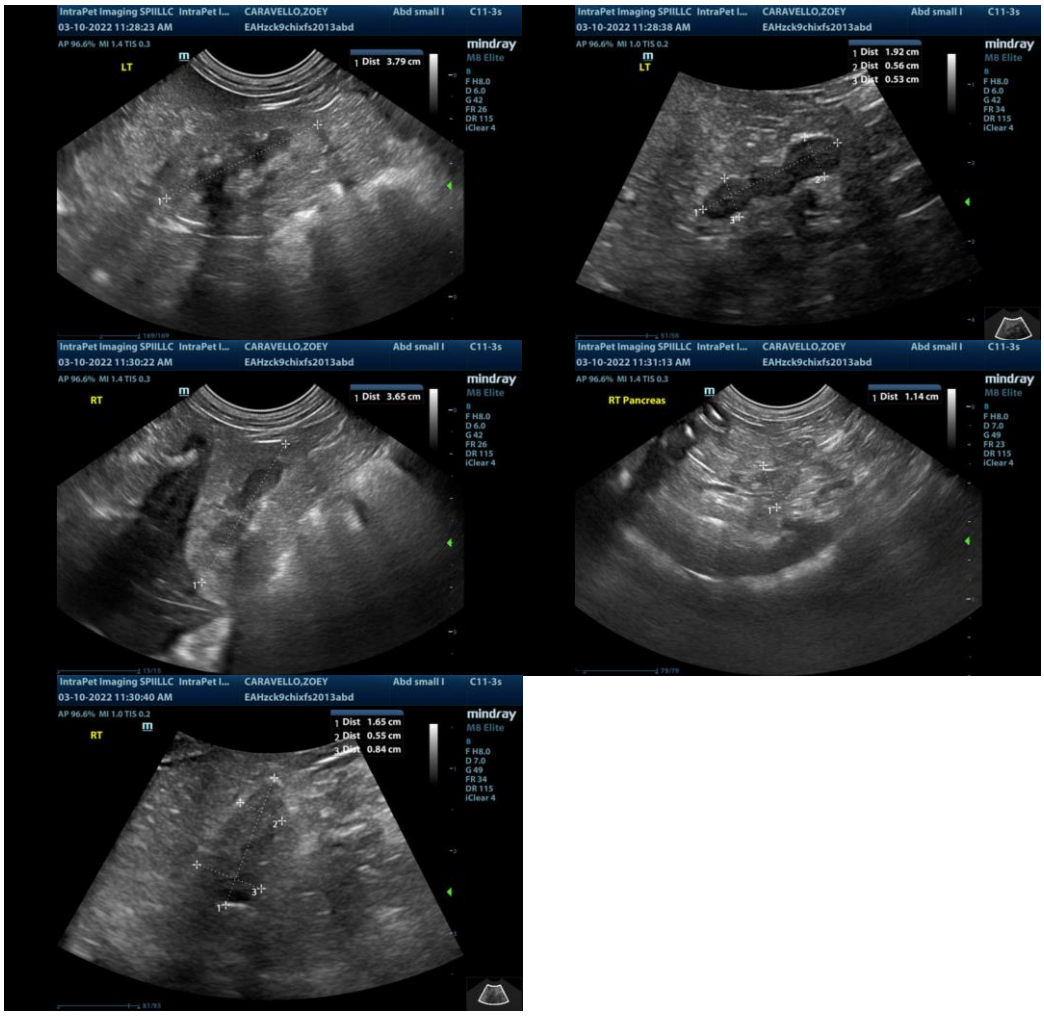
No focal lesions are visualized associated with the GI tract to explain the acute vomiting reported. The pancreas is slightly prominent but does not appear overtly inflamed. Consider a GI panel to Texas A&M for a qualitative PLI/TLI/Cobalamin and Folate to further evaluate the pancreas and small intestine.

Unfortunately, there are many causes for vomiting which cannot be diagnosed by ultrasound alone. Consider acute gastroenteritis, dietary indiscretion, partial obstruction, (no evidence of this was observed today), etc. Additionally, the history reports some evidence of proteinuria, glucosuria, and ketonuria. If this persists with rehydration, then consider a Fanconi-like syndrome which can sometimes be initiated by toxins, etc., (most specifically chicken jerky treats from China.)

Recommend supportive care for acute gastroenteritis / dietary indiscretion, and close monitoring. If symptoms progress or are not improving, recommend serial imaging, (radiographs +/- Ultrasound), and further evaluation.

The right adrenal gland appears slightly prominent and Irregular. No focal mass effect is observed. At this point, I would continue monitoring this lesion as it may just be an anatomic variant.





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