



PATIENT

IO Colin

SPECIES

Canine

BREED

Golden Doodle

SEX

Neutered Male

AGE

5 years

WEIGHT

80 lbs.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Milburn Vh

REFERRING VET

Dr. Modes

INVOICE

12385

DATE

10/19/21

PRESENTING CLINICAL SIGNS

Vomiting x 2 days (liquid, poss foreign body material), decreased appetite, lethargy/ADR, D+ Current meds: none other than Na/Ha

Abnormal PE/Chem/CBC/UA Results: Amyl 471, RBC 5.06, HCT 37.9, eos 0.01, all ele WNL

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was without pathology.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 7.3 cm in length. The right kidney measured 7.6 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 3.1 cm length x 0.64 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.7 cm length x 0.66 cm width at the caudal pole.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver/ Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

Gastrointestinal

The stomach presented intact wall layering without evidence of mural pathology or hypertrophy. Mild to moderate, retained anechoic fluid along with nonspecific hyperechoic to progressively shadowing areas of ingesta were present. The retained fluid extended into the area of the pyloric outflow. Potential



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hyperechoic to progressively shadowing ingesta or echo adjacent to the pyloric outflow were possibly within the upper duodenum, was noted. The gastric body wall measured 0.40 cm width.

The duodenum exhibited intact yet subjective prominent wall layering and decreased mucosa echogenicity with mild generalized duodenal ileus. The duodenum wall measured 0.48 cm width. The jejunum and ileum to the level of the colon were sonographically unremarkable, without overt evidence of jejunoileal mechanical or metabolic ileus or overt foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No overt lymphadenopathy was present. A small pocket of scant peritoneal free fluid was noted adjacent to the lateral spleen. This free fluid is nonspecific, assuming normal albumin levels and without evidence of hepatic congestion or splenic pathology.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Mild to moderate retained gastric fluid and focal nonspecific shadowing ingesta - mechanical vs. metabolic ileus
- Potential, although nondefinitive, shadowing echo possibly adjacent to the pyloric outflow or potentially in the upper duodenum
- Duodenitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The upper gastrointestinal stasis in this patient may be owing to possible dietary indiscretion, acute gastroduodenal insult, with secondary metabolic gastroduodenal ileus. However, given the patient's history with potential vomiting of possible foreign material, small amounts of hair, cloth, fabric, or similar within the stomach or potentially within the upper duodenum may be possible. Potential for partial upper gastrointestinal obstruction, given the retained gastric and duodenal fluid, cannot be excluded. Although, definitive evidence of a focal area of mechanical upper gastrointestinal obstruction was not definitively evident.

Considerations in this case may include hospitalization with 12–24-hour IV fluid and GI support with sonographic monitoring of the stomach +/- contrast study for further clarification. Potential for occult Addison's Disease is thought unlikely given the eosinopenia and normal bilateral adrenal glands. Exploratory laparotomy with gross inspection of the stomach and duodenum for further clarification +/- upper GI biopsies would be considered a more aggressive approach, yet warranted given the patient's clinical signs and sonographic presentation.



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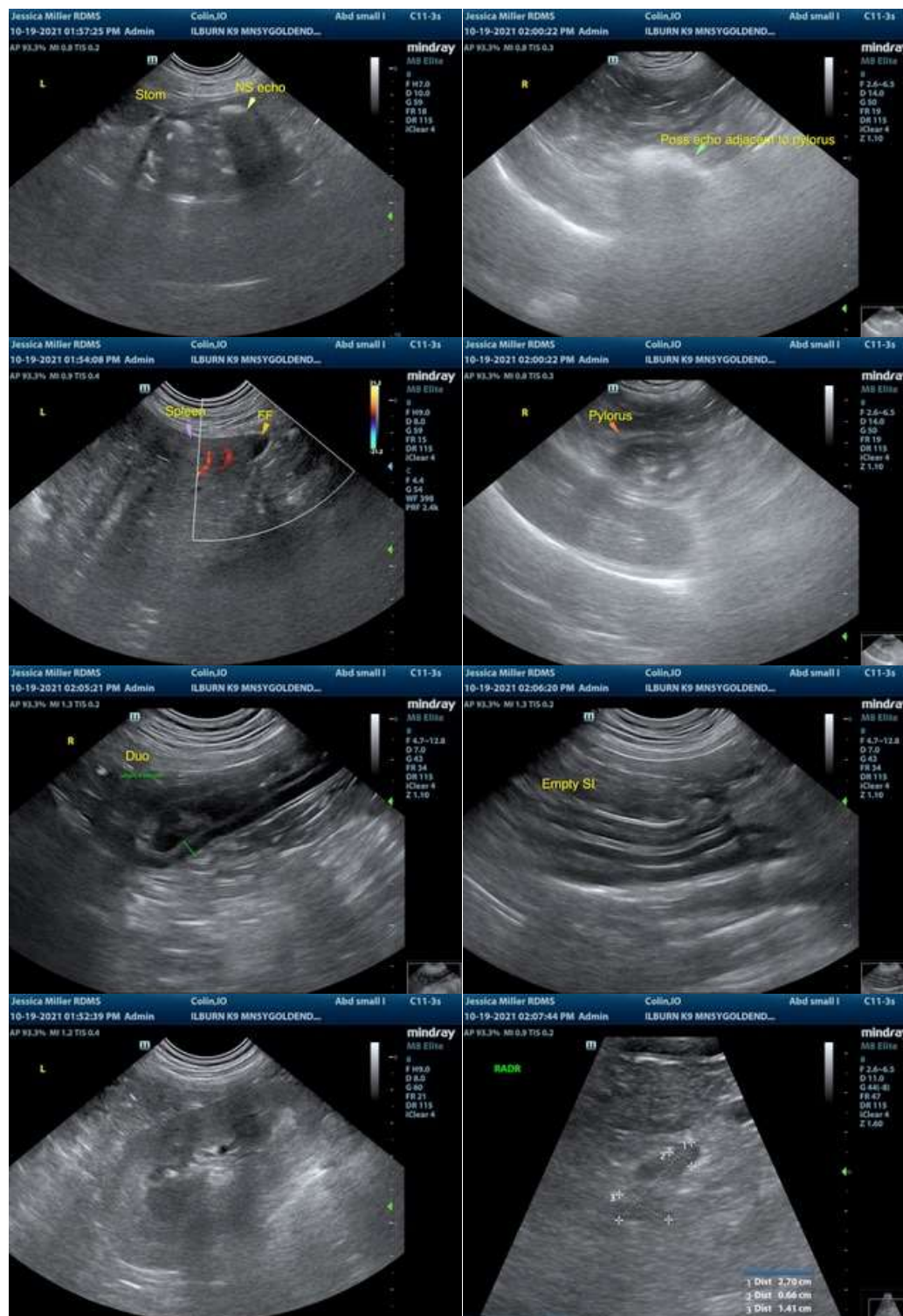
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com