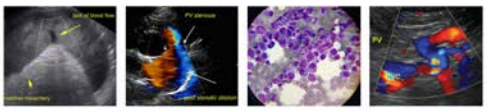


PATIENT

Ben Barnard

SPECIES

Canine

BREED

Great Dane X

SEX

Neutered Male

AGE

11 Years

WEIGHT

78 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Pamela Harrigan, RDCS

HOSPITAL NAME

Norfolk County VS

REFERRING VET

Dr. Emily McCabe

INVOICE

33718

DATE

12/23/21

PRESENTING CLINICAL SIGNS

Presented 12/18/21 for vomiting for 4-5 days. History hypothyroid (started treatment in Sept, 2020, currently on levothyroxine). Mild urinary incontinence (takes proin). In house labwork - creatinine 2.4; BUN 112, phos 11.4; ALP 1558, TP 5 glob 1.6. UA- USG 1.025, protein 4+, lepto antibody negative. Started on cerenia, SQ fluids, and aluminum hydroxide. Seeking evidence of HAC, acute vs chronic kidney disease, cause for vomiting. Patient had LDDST in 2019 which was negative for HAC. Sedated with torb/dex

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4.0 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 were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture. The prostate measured 0.85 cm dameter.

The area of the aortic trifurcation was free of pathology.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. The right kidney measured 8.1 cm. The left kidney measured 7.9 cm.

Adrenal Glands

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. No evidence of hyperplasia or neoplastic criteria. The right adrenal gland measured 0.57 cm at the caudal pole and 0.61 cm at the cranial pole. The left adrenal gland measured 0.65 cm at the cranial pole and 0.70 cm at the caudal pole.

Spleen

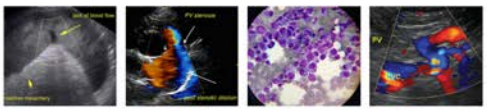
The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute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

Liver

The liver exhibited subjective mild generalized enlargement. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. 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 with a normal wall layer ratio. Minor retained ingesta/chyme noted. Gastric body wall measured 0.43 cm.



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The small intestine exhibited intact yet prominent duodenal and segmental jejunal wall layering with subtle intermittent duodenojejunal focal echogenic mucosa. No evidence of loss of small intestinal wall layering, intestinal masses, or mechanical/metabolic ileus.

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

Pancreas

The parenchyma of the pancreas was mildly hyperechoic to non-homogeneous with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

Free Abdomen

Regional mid abdominal, primarily peri intestinal mild non-uniform reactive mesentery and small pockets of scan free fluid were present. No evidence of significant lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

- Hepatopathy – subjectively chronic, benign.
- Non-specific nephropathy – chronic renal disease, potential glomerulopathy (i.e., glomerulonephritis given the proteinuria) or other possible. Subjectively the kidneys did not appear to be end stage.
- Intact yet prominent duodenal and segmental jejunal wall layering – segmental to potentially generalized enteritis, IBD, potential emerging infiltrative enteropathy, or other.
- Regional mid abdominal, primarily peri intestinal reactive mesentery and scant free fluid
- Suspect chronic pancreatitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Therapy for PLN may be indicated if elevated UPC in the face of azotemia. No overt suspicion of underlying endocrinopathy based on sonographically unremarkable bilateral adrenal glands. The scant free fluid is suspected to be owing to chronic pancreatitis or intestinal inflammation assuming normal albumin levels. Monitoring for emerging diarrhea recommended. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

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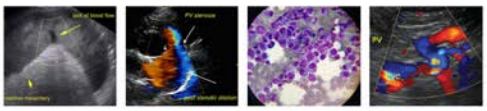

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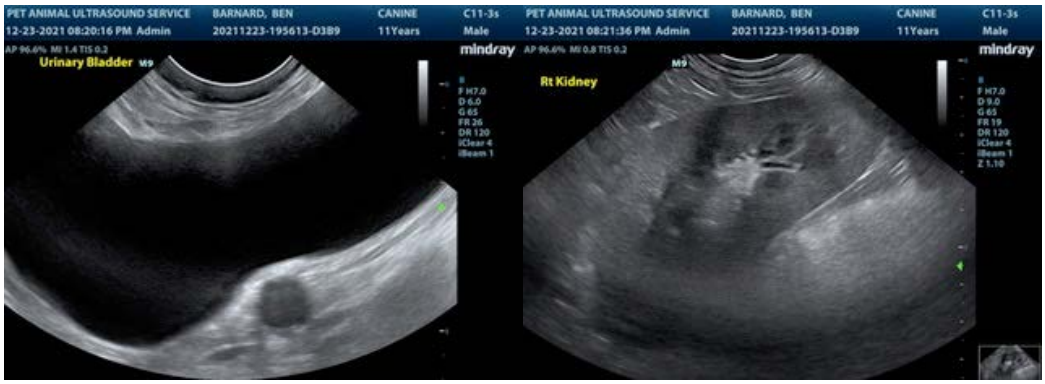

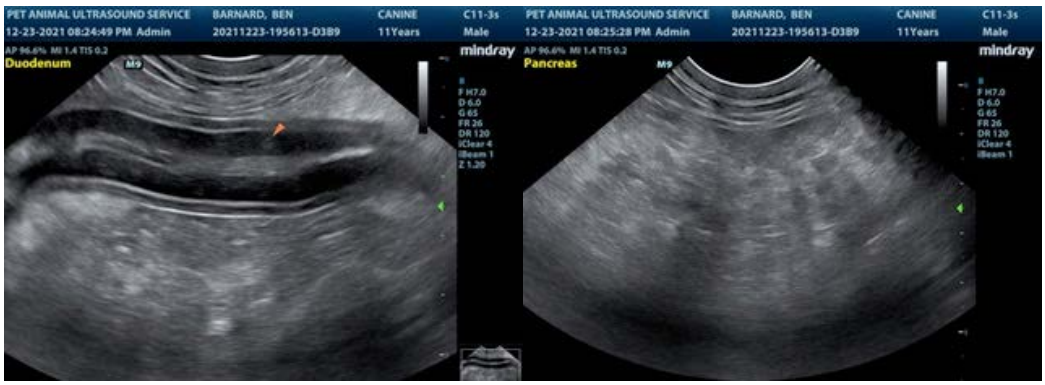

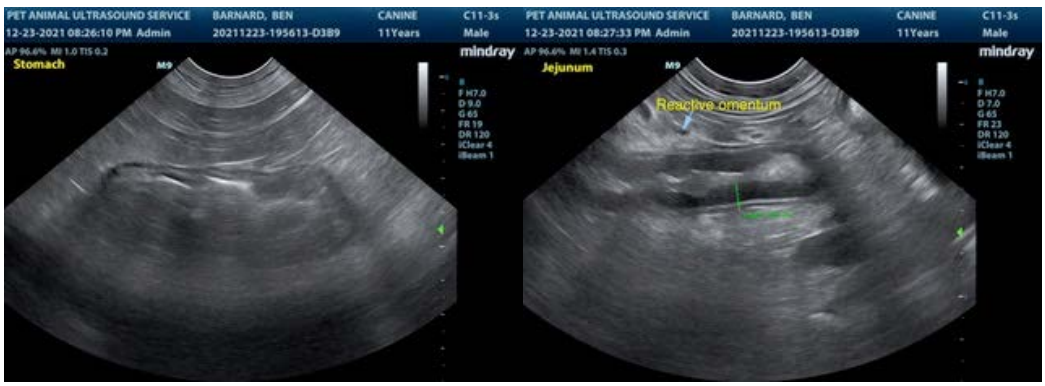

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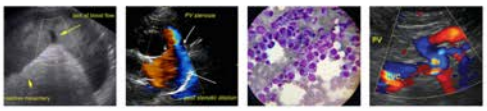

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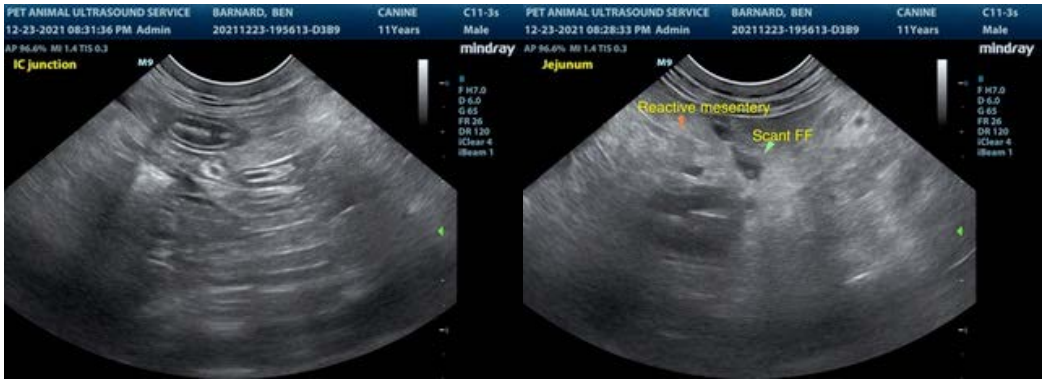

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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