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Clinical Sonography & Telecytology
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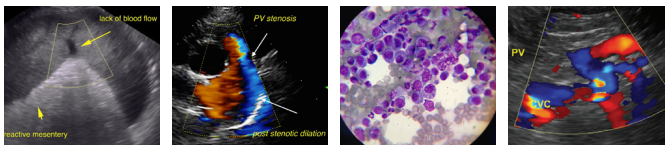

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Liam Barker

SPECIES
Canine

BREED
Pug X

SEX
Neutered Male

AGE
7 Years

WEIGHT
19.9 Pounds

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

IMAGING PERFORMED BY
SN

HOSPITAL NAME
Animal Emergency Hospital of Volusia

REFERRING VET
Dr. Van Nieuwal

INVOICE
35188

DATE
1/30/22

PRESENTING CLINICAL SIGNS

P recently diagnosed as diabetic at regular vet. O gave insulin for the first time last night at 5:30PM (3 units vetsulin as instructed). P did not want to eat so O syringe fed small amount before giving insulin. Not E/D well, vomiting and now having diarrhea as of this morning, lethargic. P was started on cerenia, famotidine, and amoxi at reg vet. 2017 history of bladder stones - is on urinary SO diet.
Abnormal PE/Chem/CBC/UA Results: BG on presentation 525, moderate ketones, strong positive for pancreatitis, decreased sodium and chloride, BUN/creat mildly elevated

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Anechoic urine was present with mild dependent mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The area of the aortic trifurcation was free of pathology.

Both kidneys were normal in size and margination with maintained 1:3 cortex/medulla ratio and increased corticomedullary echogenicity. Minor non-obstructive medullary and pelvic mineral present in both kidneys. No pyelectasia. The left kidney measured 5.4 cm. The right kidney measured 4.7 cm.

Adrenal Glands

The adrenal glands were indistinctly visualized, yet without overt evidence of enlargement or tumors. The left adrenal gland measured 0.56 cm in width. The right adrenal gland measured 0.42 cm in width.

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 was mildly enlarged. The parenchyma of the liver was uniformly hypoechoic compared to falciform fat. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size, containing moderate non-dependent, yet non-organized, non-mineralized debris. Gallbladder walls were sonographically normal. No evidence of peripheral inflammation. The common bile duct was normal.

Gastrointestinal

The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Minor retained chyme present. Gastric body wall measured 0.52 cm.

The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio with minor segmental duodenojejunal ileus. Small intestine wall measured 0.38 cm. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A segmental to diffuse ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material.

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

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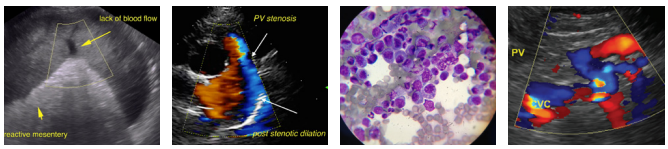

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Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

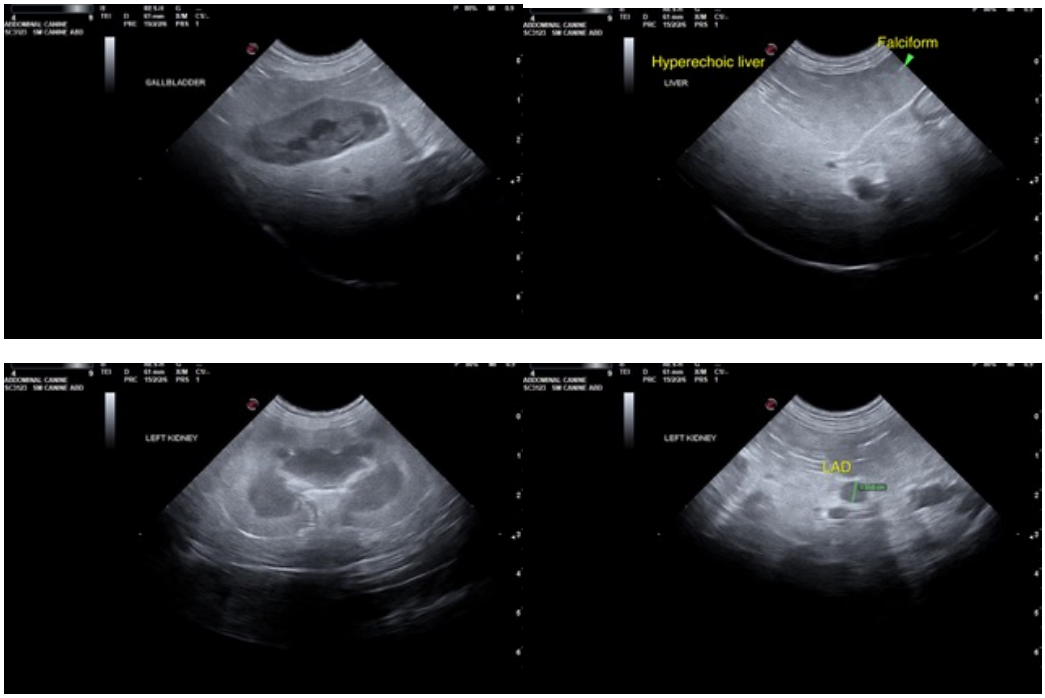
No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Hepatomegaly exhibiting generalized parenchyma hyperechogenicity – diabetic hepatopathy likely.
- Moderate gallbladder debris (non-mucocele)
- Heterogeneous to remodeled pancreas
- Non-specific increased renal corticomedullary echogenicity with mild non-obstructive medullary mineral
- Mild urinary bladder mineral
- Gastroenteritis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the pancreas is not overtly consistent sonographically with active pancreatitis, although mild chronic active to chronic pancreatitis is suspected. Urine culture and sensitivity on sterile urine sample recommended given the presence of mineral and likely glucosuria. Hospitalization with diabetic ketoacidosis therapy, as needed gastrointestinal support, and electrolyte supplementation recommended. A GI panel to include TLI, PLI, cobalamin and folate may be considered for further assessment, although the gastrointestinal signs in this patient may be secondary to chronic to chronic active pancreatitis as well as metabolic gastroenteritis.



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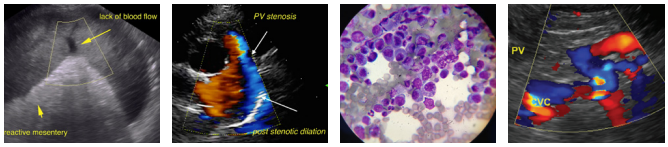

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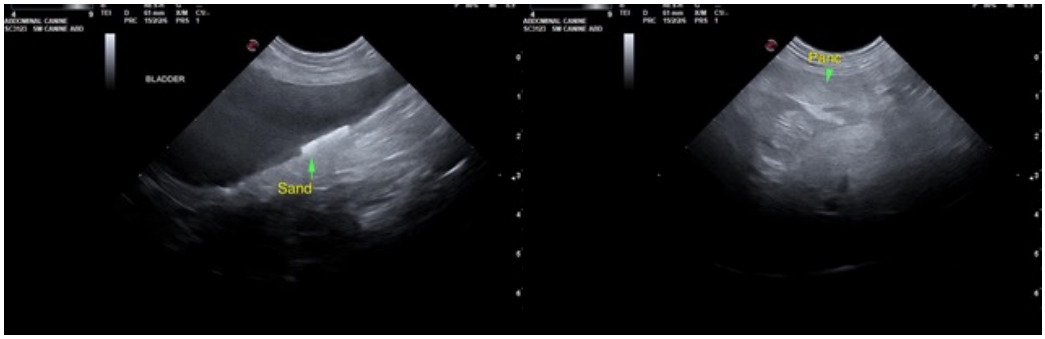

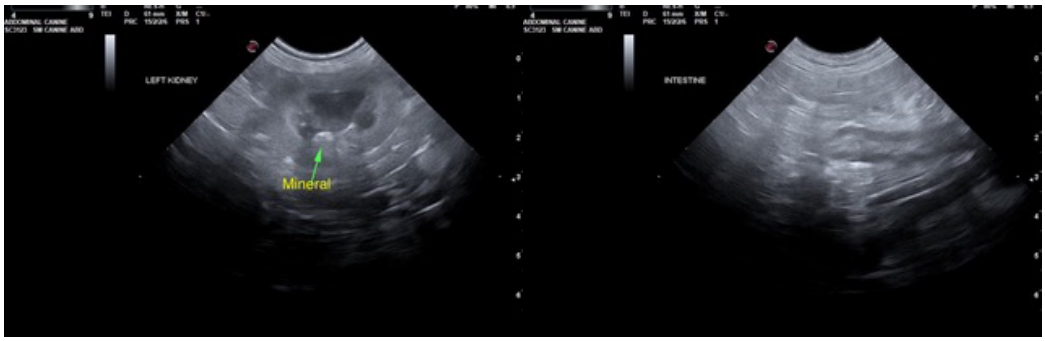

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

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