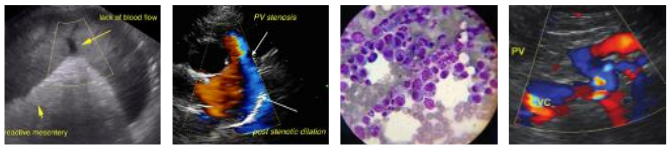
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



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

PATIENT

Jocko Keith

SPECIES

Canine

BREED

West Highland Terrier

SEX

Neutered Male

AGE

8 Years

WEIGHT

16.3 Pounds

INTERPRETED BY

Dr Brittany Sinclair, BVSc(hons), DACVECC

IMAGING PERFORMED BY

Dr. Deml

HOSPITAL NAME

Craig Road AH

REFERRING VET

Dr. Deml

INVOICE

18842

DATE

11/27/22

PRESENTING CLINICAL SIGNS

History: P is an 8 yo MN West Highland White Terrier. Hospitalized currently for DKA. P has a history of recurring episodes of pancreatitis. P presented on 11/23 lethargic, PU/PD, and inappetant. P was diagnosed DKA at this time and has been hospitalized since. Metabolic acidosis has improved from a venous pH of 7.0 on presentation to 7.25 today (normal low end is 7.35). P has improved mentally but is still lethargic and has not ate. His blood glucose has responded well to an IM Novolin-R DKA protocol. He is currently on IV fluid therapy, Cerenia, pantoprazole, ampicillin, metronidazole, Entyce, and gabapentin as well. During ultrasound, a scant amount of epistaxis was noted.

Abnormal PE/Chem/CBC/UA Results: Globulin: 3.8 (1.6-3.6) Elevated ALP: 338 (5-131) Hyperglycemia: 569 (70-138) Hypocalcemia: 8.5 (8.9-11.4) Hyponatremia: 119 (139-154) Hypokalemia: 3.4 (3.6-5.5) Hypochloridemia: 78 (102-120) Thrombocytosis: 437,000 (hi end is 400k) Neutrophilia: 22446 with mild toxic changes (2060-10600) Monocytosis: 2349 (0-840) Glucosuria (3+) Ketonuria (3+) Urine culture pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and visible pelvic urethra were of normal thickness. The ureters were not visible which is normal. There was normal wall layering with no masses, uroliths or abnormal thickening visualized. Mobile and gravity dependent debris present in the urinary bladder. Correlate clinical significance with urinalysis findings. No evidence of inflammatory or neoplastic changes were noted.

The kidneys were both normal size and structure, with smooth capsule and normal corticomedullary definition and ratio (cortex 1/3 of medulla). Medullary structure differed distinctly from that of the cortex. No evidence of pelvic dilation was present. The right kidney measured 5.12 cm. The left kidney measured 4.77 cm.

Adrenal Glands

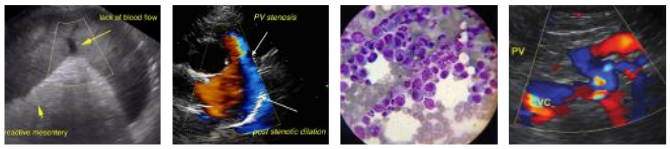
Both adrenal glands were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 1.1 cm in length and 0.46 cm at the cranial pole and 0.46 cm at the caudal pole. The right adrenal gland measured 1.3 cm in length and 0.56 cm at the cranial pole and 0.54 cm at the caudal pole.

Spleen

The spleen was normal with a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma and smooth capsule, with normal splenic vasculature with no signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarct changes were noted.

Liver

The liver is subjectively enlarged in size with hyperechoic homogenous parenchyma. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.



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Gallbladder is moderately distended with normal wall thickness and hyperechoic nonshadowing mobile debris. Common bile duct is non-distended and tapers normally.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of 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. 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 appears subjectively slightly enlarged with generally hyperechoic to heterogenous parenchyma with hyperechoic nodules throughout the parenchyma, most evidenced in the body of the pancreas. No surrounding fluid and no specific fluid accumulations are noted within the pancreas. No evidence of neoplastic disease noted.

Lymph Nodes

There is a solitarily enlarged peripancreatic node or this less likely may represent a pancreatic cyst.

Free Abdomen

The abdominal mesentery associated with the pancreas and small intestine is generally hyperechoic.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Hyperechoic pancreatic and small intestinal associated mesentery
- Likely acute on chronic pancreatitis

Secondary Findings

- Hyperechoic liver

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The hyperechoic liver is likely secondary to known endocrine disease. A liver FNA could be considered to rule out other microscopic cellular hepatic disease, though liver endocrinopathy secondary to the diabetes is the most likely cause.

The pancreas has changes consistent with chronic pancreatitis and inflamed mesentery, acute pancreatitis is considered likely, as this patient is inappetent despite improved control of the DKA. More aggressive treatment for pancreatitis is recommended, including placement of a nasogastric tube with enteral nutrition. Bolus feeding through the NG tube, as opposed to a CRI of nutrition, can be beneficial for better glycemic control in a DKA patient.

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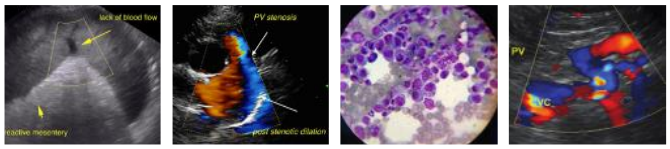

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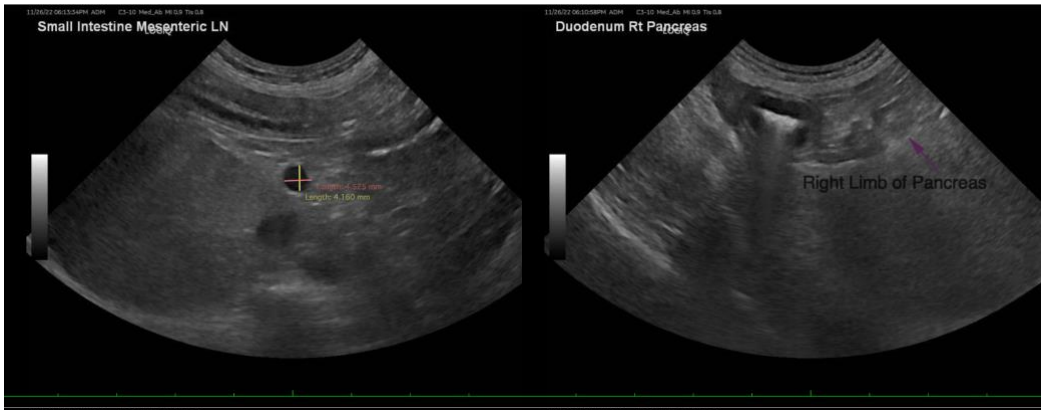

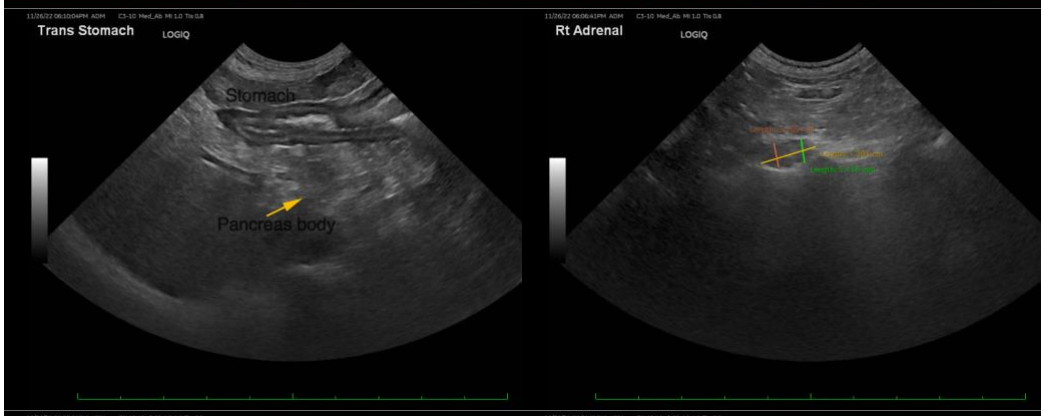

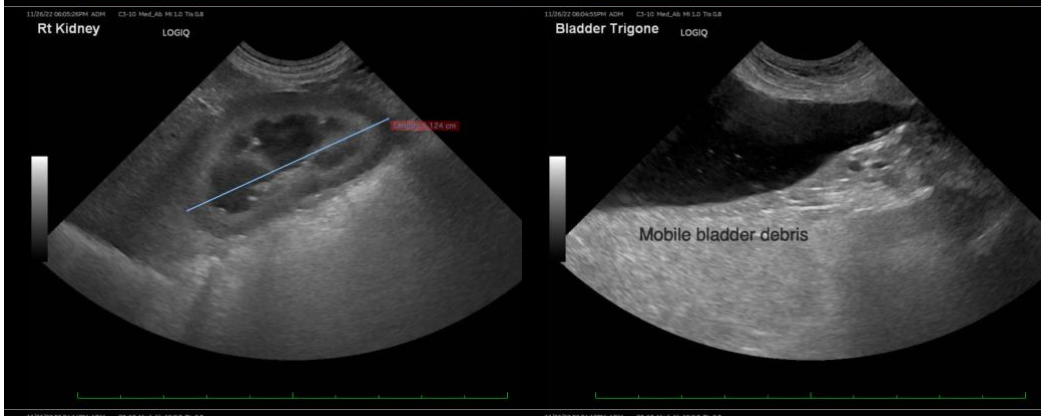

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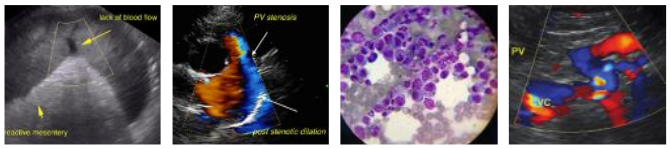

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Dr Brittany Sinclair, BVSc(hons), DACVECC
info@SonoPath.com