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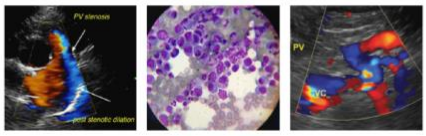

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PATIENT
Indie Irwin

SPECIES
Canine

BREED
Min Pin

SEX
Spayed Female

AGE
17 Years

WEIGHT
15 Pounds

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

IMAGING PERFORMED BY
Amy Mayhew, LVT

HOSPITAL NAME
SVS Imaging MI

REFERRING VET
Union Lake Vet Hospital

INVOICE
37257

DATE
4/28/22

PRESENTING CLINICAL SIGNS

Weight loss (about 5# although current weight is ideal for body condition), picky eater, intermittent (often once weekly but sometimes less) diarrhea, borborygmi, complete refusal to eat. History of pancreatitis in the past. Exam findings and abnormal lab values: Elevated ALP.
Abnormal PE/Chem/CBC/UA Results: Please see attached BW.

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 (4.3 cm) with numerous cortical cysts and mild pyelectasia at 0.30 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size with mild pyelectasia at 0.36 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. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal/borderline large in size measuring 0.67 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 normal/borderline large in size measuring 0.51 cm at the cranial pole, 0.55 cm at the caudal pole, and 2.13 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect. There is some cystic, irregular appearing tissue just adjacent to the right adrenal gland, most consistent with a cystic lymph node, but continued monitoring of this area is warranted.

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 large in size and hyperechoic with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There are numerous, very subtle, hypoechoic nodules visualized within the parenchyma. Two such nodules measure 0.42 cm and 0.42 cm.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

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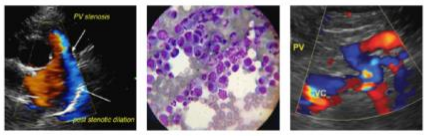

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Gastrointestinal

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 uniform diameter with minimal fluid distension. Wall appears subjectively, mildly increased. Bowel loops follow a typical curvilinear path with distinct wall layering. Duodenum wall measured 0.39 cm. Jejunum wall measured 0.35 cm. 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 hypoechoic as 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

- Decreased corticomedullary distinction in both kidneys with cortical cysts and bilateral pyelectasia – Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The bilateral renal findings are consistent with age-related change.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Hyperechoic and heterogeneous liver with ill-defined, hypoechoic nodules – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Irregular, cystic appearing tissue adjacent to the right adrenal gland – The significance of this tissue is unclear. It appears somewhat consistent with a cystic lymph node, but continued monitoring of this area is warranted.
- Mildly thickened small intestine – The mild small intestinal wall changes may be a normal variant in this patient or could be consistent with an inflammatory process (e.g., inflammatory bowel disease).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal mass lesions are observed on today's scan. In general, the GI tract appears somewhat thickened, which could be consistent with underlying inflammatory disease, lymphangiectasia, etc. (less likely neoplasia).

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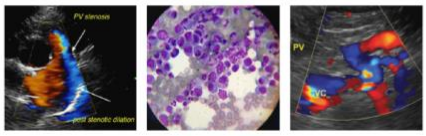

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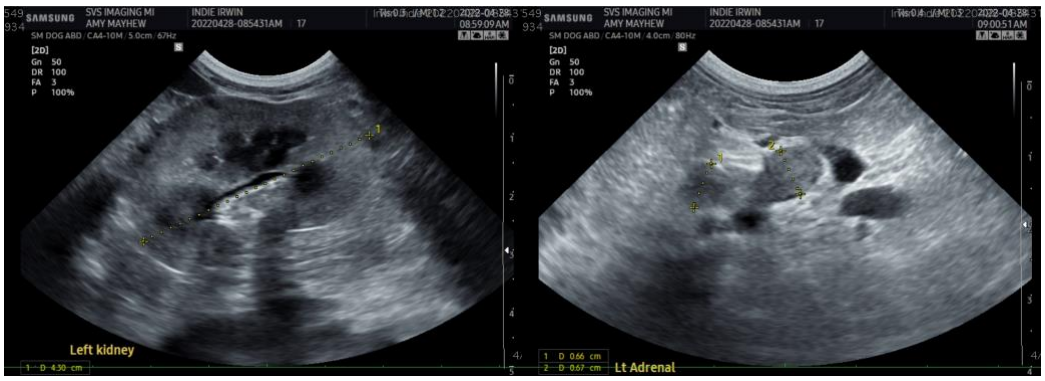
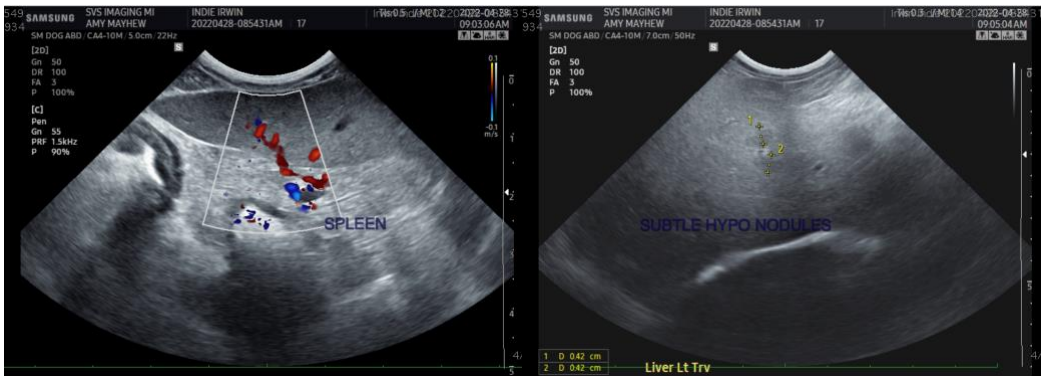
Additionally, the liver is large and heterogeneous. A liver function test and a fine needle aspirate of the liver could be considered.

The adrenal glands do not measure as significantly enlarged, but somewhat borderline, and if signs of Cushing's are present you could consider evaluation of adrenal function.

The pancreas is somewhat prominent, but not overtly inflamed. These changes could be consistent with previous episodes of pancreatitis or chronic mild pancreatitis.

- Consider a novel protein/hydrolyzed protein diet.
- Consider a GI panel with quantitative PLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.
- Recommend chronic probiotic therapy.
- Recommend 3-view thoracic radiographs.
- If there is no response to general treatment and dietary treatment for the diarrhea, then consider obtaining GI biopsies and fine needle aspirate or biopsy of the liver.





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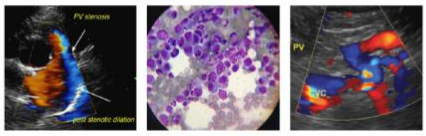

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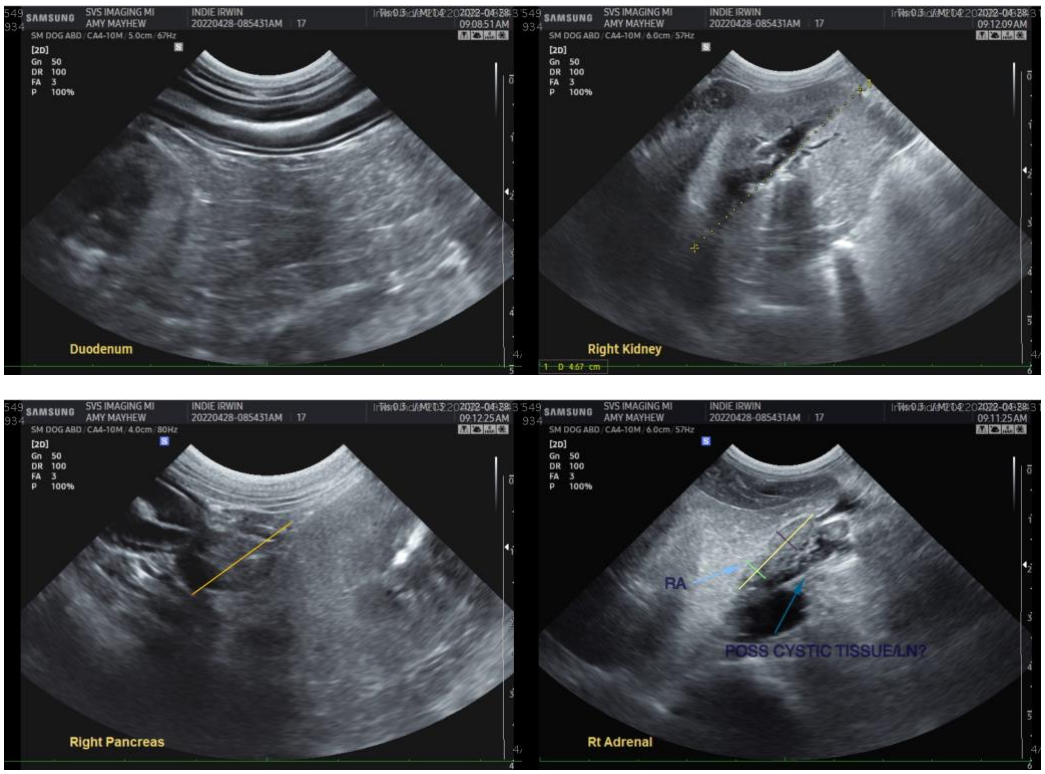

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

kathleen.sennello@sonopath.com