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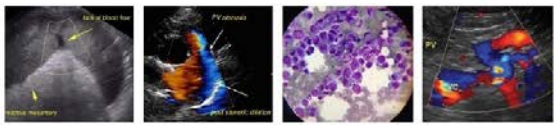

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Timbit Burnstein

SPECIES

Canine

BREED

Yorkie

SEX

Spayed Female

AGE

11 Years

WEIGHT

10.38 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Nelson AH

REFERRING VET

Dr. Frederick

INVOICE

33456

DATE

12/15/21

PRESENTING CLINICAL SIGNS

Persistent glucosuria, not diabetic. On Stilbesterol 1mg.
Abnormal PE/Chem/CBC/UA Results: ALT/ ALP mild elevation, Fructosamine low, blood glucose normal. U/A - trace protein, glucose 2+ and Sp grav - 1.042.

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 right kidney has a normal shape and size (4.3 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The left kidney has a normal shape and size (3.89 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.57 cm. 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 in size measuring 0.51 cm. 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.

Spleen

The spleen echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The spleen is subjectively normal in size with no focal parenchymal abnormalities. The blood flow through the hilus and splenic parenchyma appears normal.

Liver

The liver is subjectively normal in size, and echogenicity 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach appears contains minimal luminal contents. It measures at a normal thickness of XX cm 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.

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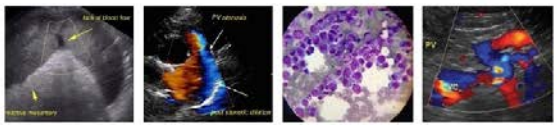

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The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa 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 is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

ULTRASONOGRAPHIC FINDINGS

- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Subjectively heterogeneous liver – 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.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The ultrasound findings are relatively non-specific and consistent with chronic age related kidney changes and possible liver parenchymal abnormalities. Correlate with lab work. If liver values are normal, this is likely an incidental finding.

Based on the history submitted, this patient has glucosuria with a normal serum blood glucose. Provided this is repeatable, this is most consistent with metabolic disease, more specifically renal tubular disease and Fanconi syndrome or Fanconi-like syndrome. Correlate with blood work including electrolytes, a urine protein/creatinine ratio, a urine culture, and a good history. Fanconi's can be due to many causes such as chicken jerky treats from China (ask the owner about these), medications, Leptospirosis, tocins, etc. Recommend screening for Leptospirosis and careful examination of history for toxin exposure, etc. Consider metabolic testing for Fanconi's through University of Pennsylvania's genetic lab. In the past, I have found the Gonto protocol to be helpful if this is a confirmed case.

If a definitive cause can be identified such as chicken jerky treats from China, often with time the kidneys can repair and these symptoms will resolve.

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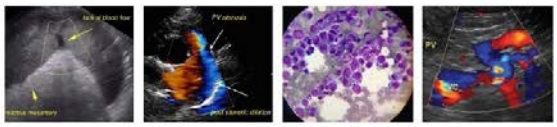

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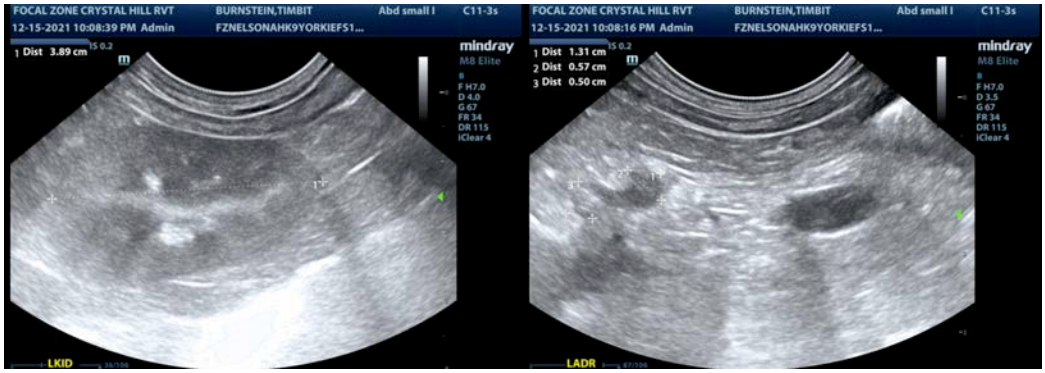

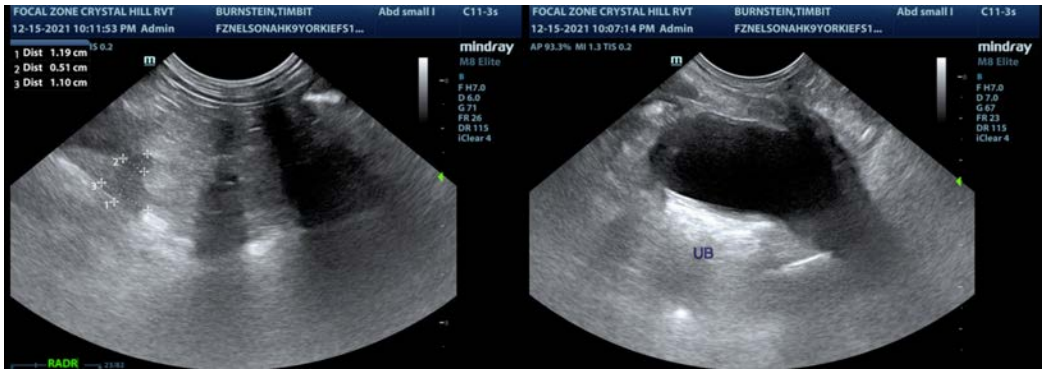

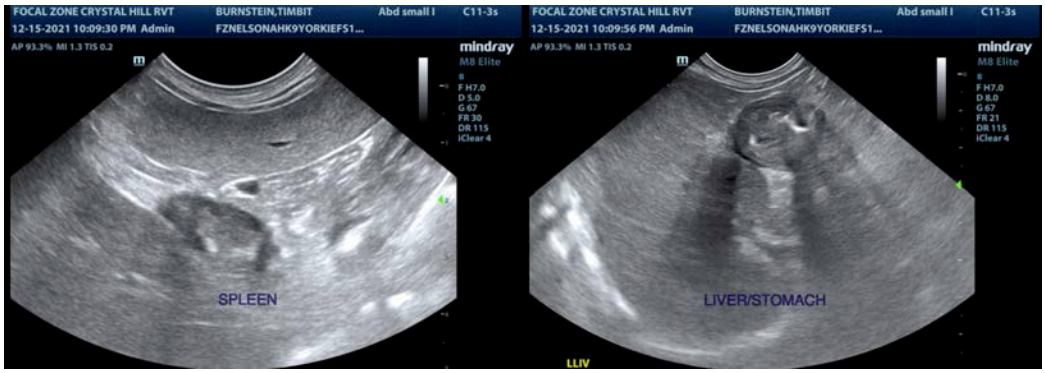

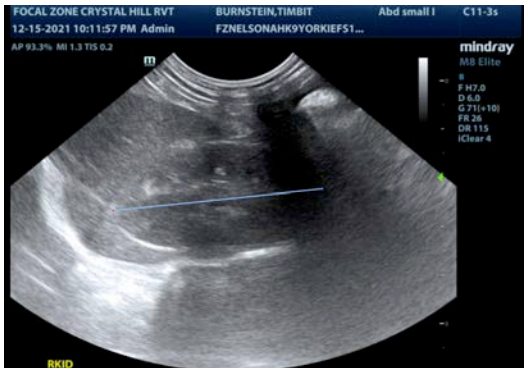

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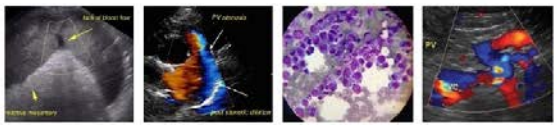

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Kathleen Sennello DVM, MS, Diplomate ACVIM (Small Animal Internal Medicine)
info@sonopath.com