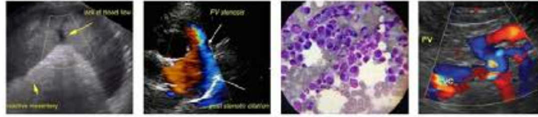


PATIENT

Guiness James Gossett

SPECIES

Canine

BREED

Boston Terrier

SEX

Neutered Male

AGE

5/19/12

WEIGHT

11 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Desert Hills AH

REFERRING VET

Dr. Michelle Caldwell

INVOICE

44846

DATE

8/22/23

PRESENTING CLINICAL SIGNS

P shows increasing trend in ALP value and has now developed pu/pd. P has previously had borderline low albumin and allergies but since switching to hydrolyzed protein diet and oral cobalequin supplements, albumin is normal (3.5). P has no diarrhea or vomiting. Working diagnosis Possible hyperadrenocorticism with some degree of inflammatory bowel disease. MEDS Denamarin Advanced 1/2 tab once daily, Nurtamax cobalequin oral chews 1 tab EOD

Abnormal PE/Chem/CBC/UA Results: BW results 8/ 14/22 cbc - platelets 592,000 (170,000-400,000) chem - alp 980, increased significantly since last visit T4 1.7 UA: usg 1.010, pH 5.0

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 prostate is normal in size (0.93 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.79 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.9 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

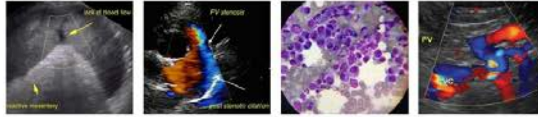
Adrenal Glands

The left adrenal gland is normal in size measuring 0.66 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 in size measuring 0.55 cm at the caudal pole. 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 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. There is an ill-defined hyperechoic nodule visualized in the parenchyma measuring 1.55 cm x 0.84 cm.



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Liver

The liver is large in size, and normal in 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. There are numerous ill-defined hyperechoic nodules throughout the parenchyma, examples measure 1.4 cm and 2.1 cm in diameter.

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

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 visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. Duodenum wall measures 0.65 cm. Jejunum wall measures 0.55 cm. Mild mucosal striations are visualized associated with the duodenum.

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.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion. There are occasional prominent/visible mesenteric lymph nodes. One such lymph node measures 0.53 cm in diameter. The omentum is of normal echogenicity.

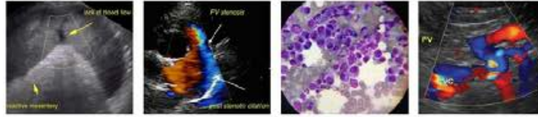
Other

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

ULTRASONOGRAPHIC FINDINGS

- Ill-defined hyperechoic nodule visualized in the spleen – There is a non-cavitated, hyperechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

- Large, heterogeneous liver with diffuse ill-defined hyperechoic 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. The appearance of the ill-defined hyperechoic nodules trends towards a more benign process such



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as hyperplasia, vacuolar hepatopathy, etc., although an underlying neoplastic process cannot be ruled out.

- Diffusely thickened small intestine with mild mucosal striations visualized in the duodenum – The bowel wall thickening could be consistent with inflammation, edema, or infiltrative neoplasia.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

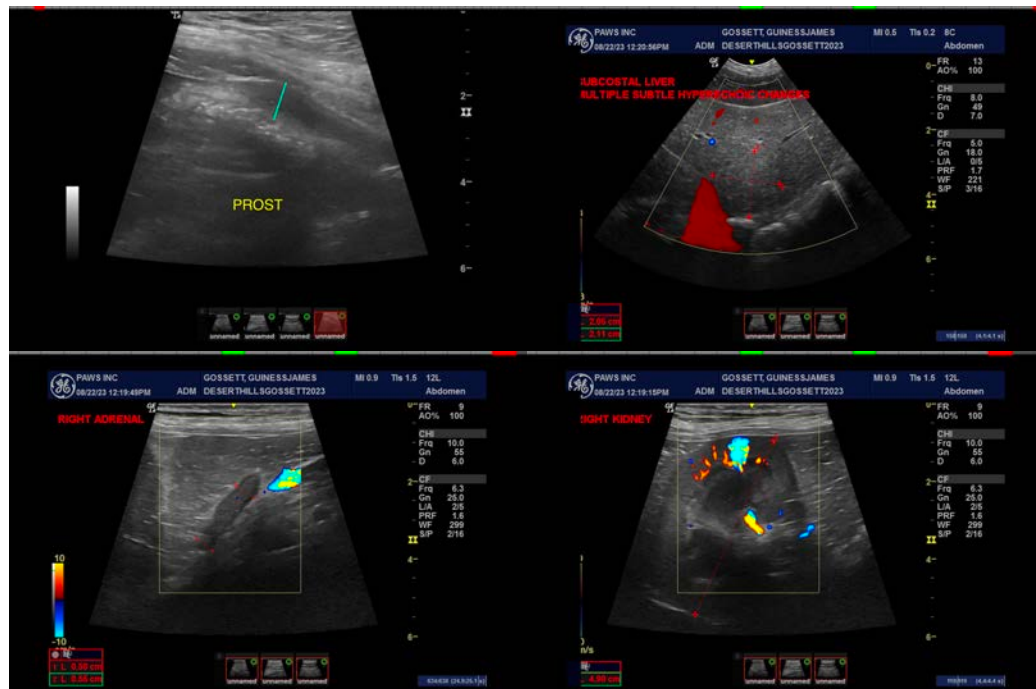
The liver is large and heterogeneous with some il-defined hyperechoic nodules. This appearance trends towards a more benign process such as a vacuolar hepatopathy, etc., although more significant hepatic disease cannot be definitively ruled out. Correlate with lab work. If liver enzyme elevations are present, consider a liver function test +/- a fine needle aspirate. Additionally, a fine needle aspirate could be considered due to the parenchymal changes observed.

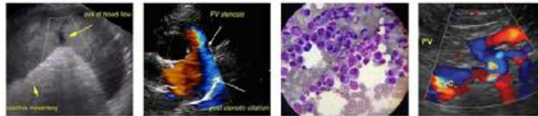
Both adrenals appear relatively normal in size. This does not rule out a diagnosis of hyperadrenocorticism but may make it somewhat less likely.

The small intestine appears diffusely mildly thickened with intact wall layering. There are some very mild mucosal striations visualized associated with the duodenum. I am concerned that a protein losing enteropathy may be present based on the history provided. Close continued monitoring of the albumin levels, body weight, and character of the stool is warranted. Additionally, consider periodic GI panels to assess cobalamin and folate levels. Strict adherence to the hydrolyzed diet is recommended.

There is an ill-defined hyperechoic nodule visualized associated with the spleen. Options moving forward would include continued monitoring with ultrasound or a fine needle aspirate.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





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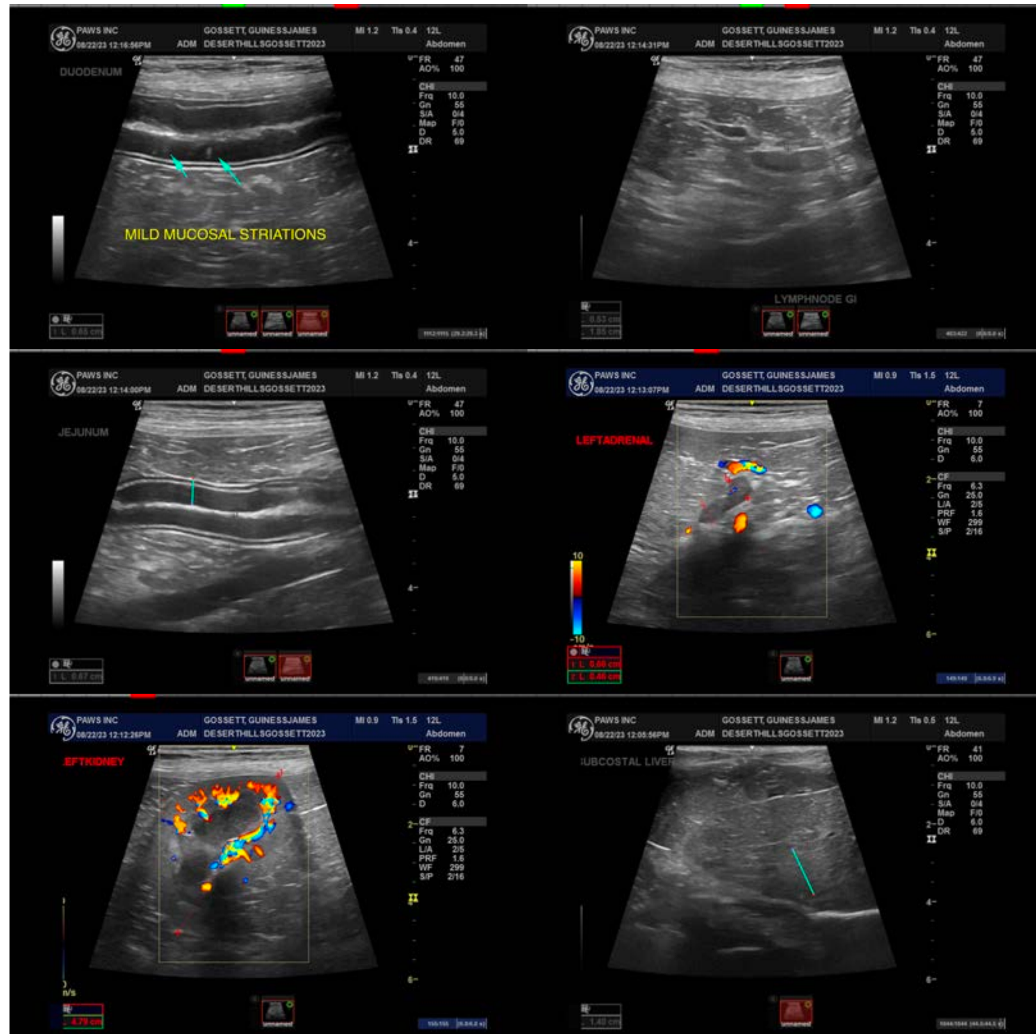

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

info@sonopath.com