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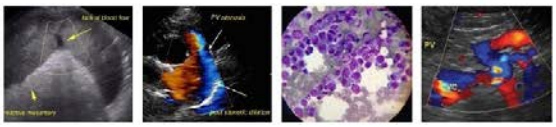

THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Stewie Anson

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

16 Years

WEIGHT

5.88 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

The Cat Clinic (Hamilton)

REFERRING VET

Dr. Hall

INVOICE

44895

DATE

8/23/23

PRESENTING CLINICAL SIGNS

Has been seen by local referral hospital and was diagnosed with Triaditis. Echo was never assessed. AUS from Nov 22 - coarse hyperechoic nodules and hyperechoic parenchyma liver, prominent muscularis small intestines, changes consistent with pancreatitis, degenerative renal changes, hyperechoic gallbladder wall, splenic nodules, distension of left proximal ureter with abrupt narrowing, pancreatic mineralization, suspected Bates body, mild lymphadenomegaly. PE - mild decreased MCS, grade 2-3/6 heart murmur PMI left sternal, stiff gait. Meds - Ursodial 62.5mg SID, Solensia every 30 days, Metronidazole 25mg SID, Cerenia 4mg q 24 hours, Mirtazapine q 24-48 PRN. BP 125mm Hg doppler, HR 180 RR 25. Considering starting Prednisolone - please comment.

Abnormal PE/Chem/CBC/UA Results: Moderate increase ALP, ALT, AST, Mild increase T. Bili, mild increase fPL, T4 WNL, Urine SG - less than 1.035.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

The left kidney has a normal shape and size (3.52 cm) with pyelectasia at 0.26 cm. Overall echogenicity is slightly hyperechoic with poor 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal. The proximal ureter appears prominent and dilated at 0.41 cm.

The right kidney has a normal shape and size (4.16 cm). Overall echogenicity is slightly hyperechoic with poor 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 0.43 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 0.62 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 (0.90 cm), echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are occasional hyperechoic nodules visualized in the parenchyma, most consistent with benign myelolipomas.

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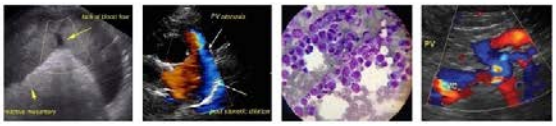

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Liver

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 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 a moderate amount of shadowing ingesta. 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 relatively uniform diameter with mild to moderate 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. Jejunum wall measures 0.19 cm. Visualized peristalsis appears appropriate. The small bowel appears diffusely dilated with fluid/ingesta.

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 mottled 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

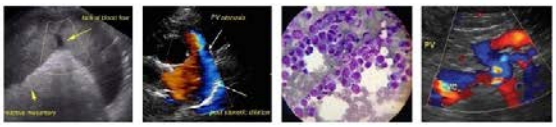
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

Other

There is a 0.94 cm shadowing structure visualized cranial to the right kidney. This could represent a bates body, an area of mineralization, etc. Correlate with abdominal radiographs.

PRIMARY FINDINGS

- Echogenic debris in the urinary bladder – The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus.
- Decreased corticomedullary distinction in both kidneys with left-sided pyelectasia and mild proximal ureteral dilation – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. There is no evidence of a focal obstruction or stone visualized.



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- Prominent, mottled pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Mildly heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Moderate amount of shadowing material visualized within the gastric lumen and diffuse fluid/chyme dilation of the small bowel – Correlate with the feeding history. If the patient was adequately fasted, consider such differentials as delayed gastric emptying or a pyloric outflow tract obstruction (none observed). Intraluminal material interferes with full evaluation of the gastrointestinal tract.

SECONDARY FINDINGS

- Occasional hyperechoic nodules in the spleen – Findings are most consistent with benign myelolipomas.
- Hyperechoic shadowing structure visualized cranial to the right kidney – Correlate with abdominal radiographs. This is most consistent with a bates body.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes observed on today's scan are relatively similar to those previously described but are possibly milder(?). There is no evidence of active pancreatic inflammation. Correlate this with an fPLI level. The changes in the small bowel are difficult to appreciate possibly due to fluid/ingesta distention. Given the lack of response to therapy, I would strongly recommend some form of sampling to try and confirm the diagnosis. If possible, consider a fine needle aspirate of the liver. If there are significant GI signs present, GI biopsies could be helpful as well as a GI panel to Texas A&M for a qualitative fPLI, TLI, cobalamin and folate. If not already doing so, recommend a hydrolyzed protein/novel protein diet and chronic probiotic therapy.

Additionally, if symptoms are very persistent, you could consider biopsies of the liver, GI tract, and pancreas. It would be ideal to establish the presence of inflammation prior to Prednisone therapy and rule out round cell neoplasia, but understandably if this is not possible, then consider an anti-inflammatory dose of Prednisone (0.5 mg/kg per day) and close continued monitoring.

If not recently done, consider a urinalysis and culture due to the mild echogenic debris visualized in the urinary bladder and the renal pelvic dilation.

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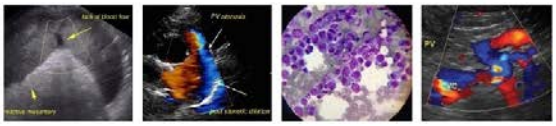

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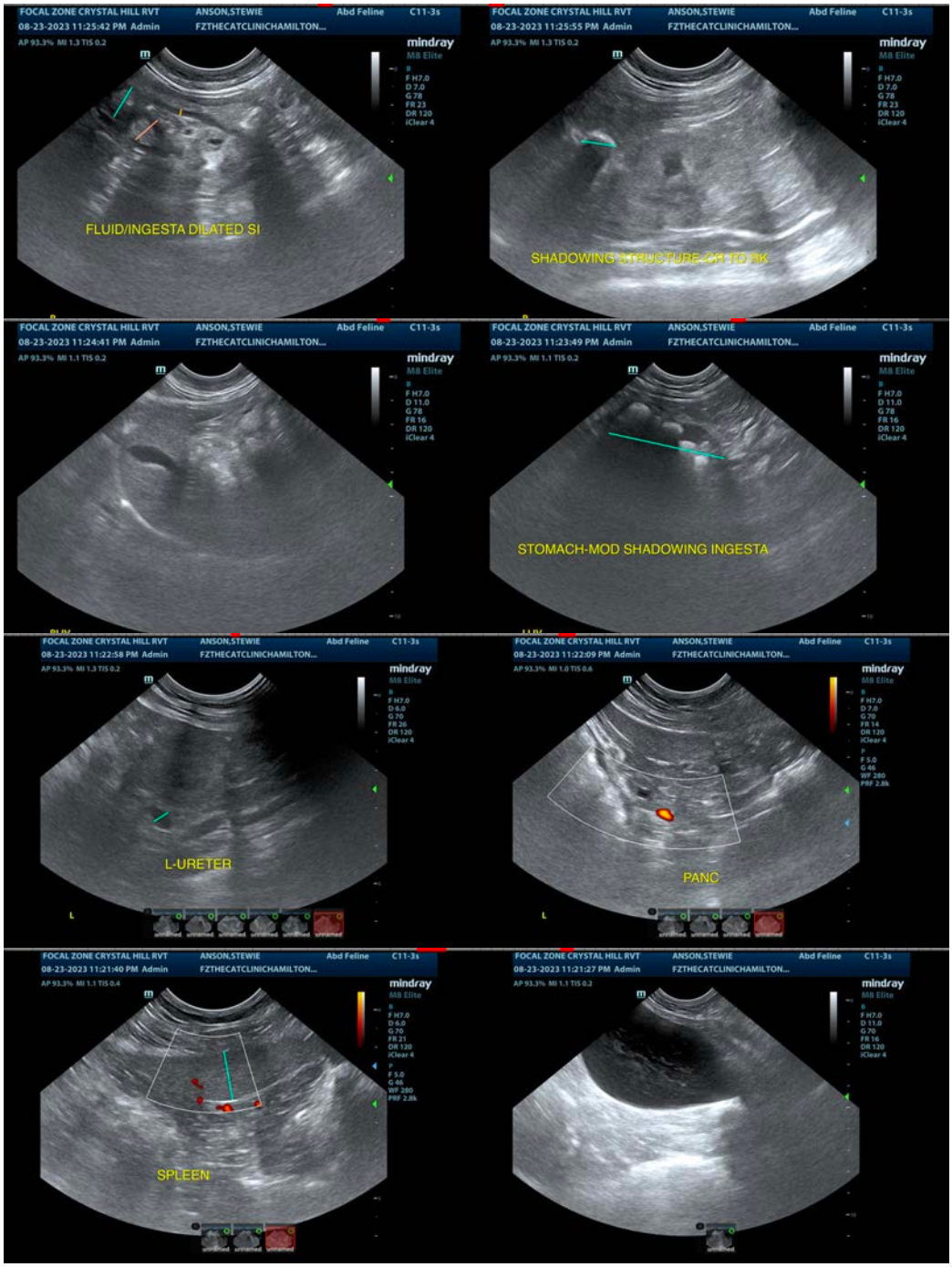

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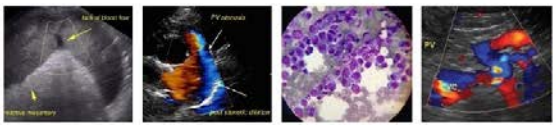

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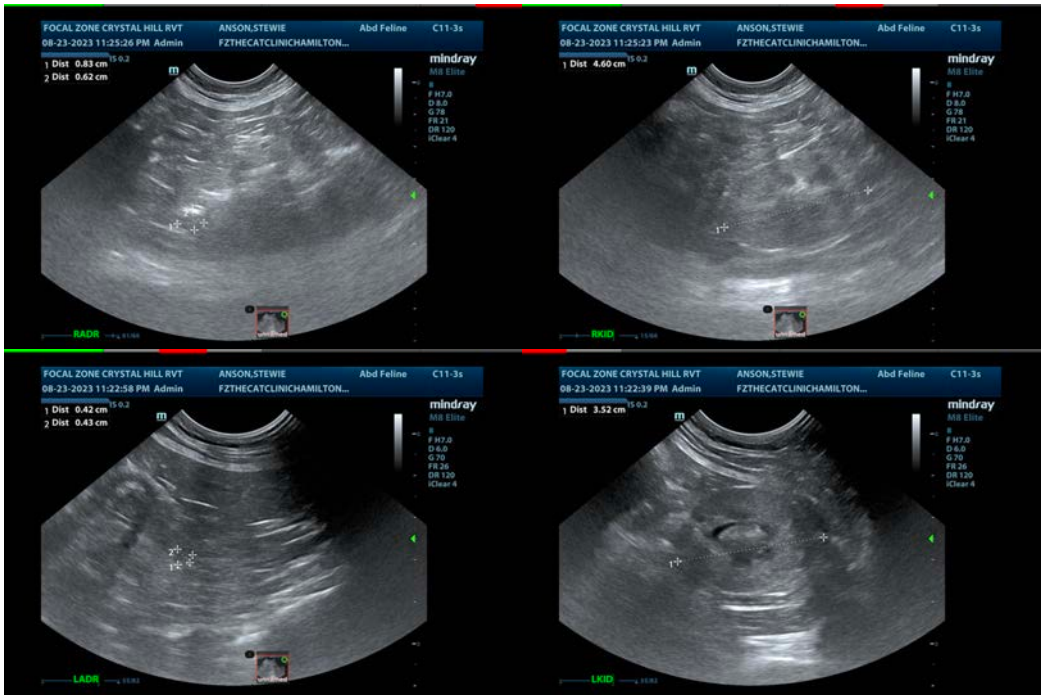

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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