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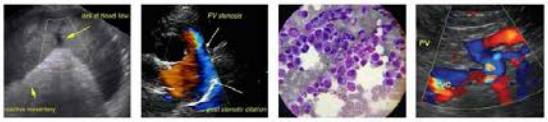

IMAGING PERFORMED BY
pawsonography@gmail.com 530-786-8340

PATIENT

Sampson Jacober

SPECIES

Canine

BREED

Cocker Spaniel

SEX

Neutered Male

AGE

12 Years 7 Months

WEIGHT

36.5 Pounds

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING BY

Loetitia Saint-Jacques, LVT

HOSPITAL NAME

Advanced PetCare of Nevada

REFERRING VET

Dr. Alexis Hazelwood

INVOICE

24916

DATE

8/24/21

PRESENTING CLINICAL SIGNS

History: Sampson presented 1 week ago for annual exam and pre-surgical diagnostics. O tried for a preventative teeth cleaning, but the technician found a likely oronasal fistula. O reports that he is doing well at home and he has no concerns. He has been slowing down, but O thinks normal for age. Once receiving lab work and speaking with O over the phone, he noted Sampson has had soft stool for several weeks. No vomiting. Physical Exam Findings/Reason for Ultrasound: On exam, Sampson has mild diffuse muscle atrophy. Heart rate was rather low, but ECG came back normal. Labwork received next day showed extremely elevated cPL (about 900); ALP elevated at 861, SDMA 16, USG grey-zone (1.021), and phosphorus mildly elevated (6.7). Thyroid value was low, but I suspect non- thyroid disease to be the cause given the other abnormalities. Spoke with internist and given lack of clinical signs for pancreatitis and degree of elevation – pancreatic neoplasia becomes a concern. Recommended O do ultrasound given mild SDMA elevation, cPL elevation, and ALP. Lab Work Attached for Review? Yes Radiographs Attached for Review? No

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Mild primarily dependent to focally non-dependent mineralized sediment was present. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture. The prostate measured 0.75 cm diameter.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Non-obstructive medullary mineralization noted, primarily in the lateral diverticuli and around the pelvis. The kidneys measured 6.0 cm each.

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

The adrenal glands were mildly prominent in size with symmetrical contour and uniform hypoechoic parenchyma. The left adrenal gland measured 0.87 cm at the cranial pole and 0.78 cm at the caudal pole. The right adrenal gland measured 0.91 cm at the cranial pole and 0.63 cm at the caudal pole.

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age related remodeling with minor potential for inflammatory or neoplastic disease.

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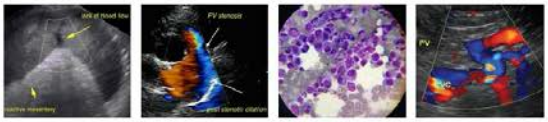

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Liver

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. Intermittent, subtle, non-expansive hypoechoic parenchymal nodules were present. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non distended in size with mild, echogenic, nonmineralized biliary sludge. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained echogenic ingesta with distal acoustic shadowing. Gastric body wall measured 0.45 cm.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

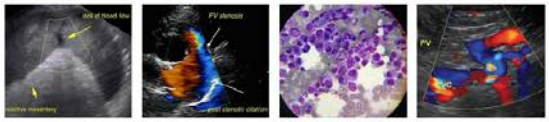
ULTRASONOGRAPHIC FINDINGS

- Mild mineralized urinary bladder sediment
- Bilateral chronic renal changes with non-obstructive medullary and pelvic mineralization
- Vacuolar hepatopathy pattern with probable intermittent benign parenchymal nodules – suggestive of probable areas of nodular to regenerative hyperplasia, hematopoiesis or similar. No overt evidence of hepatic neoplasia.
- Minor gallbladder debris (non-mucocele)
- Subjective mild prominent adrenal glands
- Mildly heterogeneous pancreas
- Shadowing gastric ingesta

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient is likely passing small amounts of mineral from the kidneys into the urinary bladder. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

The mildly prominent adrenal glands are of unclear clinical significance given the lack of reported clinical signs suggestive of adrenal disease and USG >1.020. Screening UCCR +/- LDDST may be



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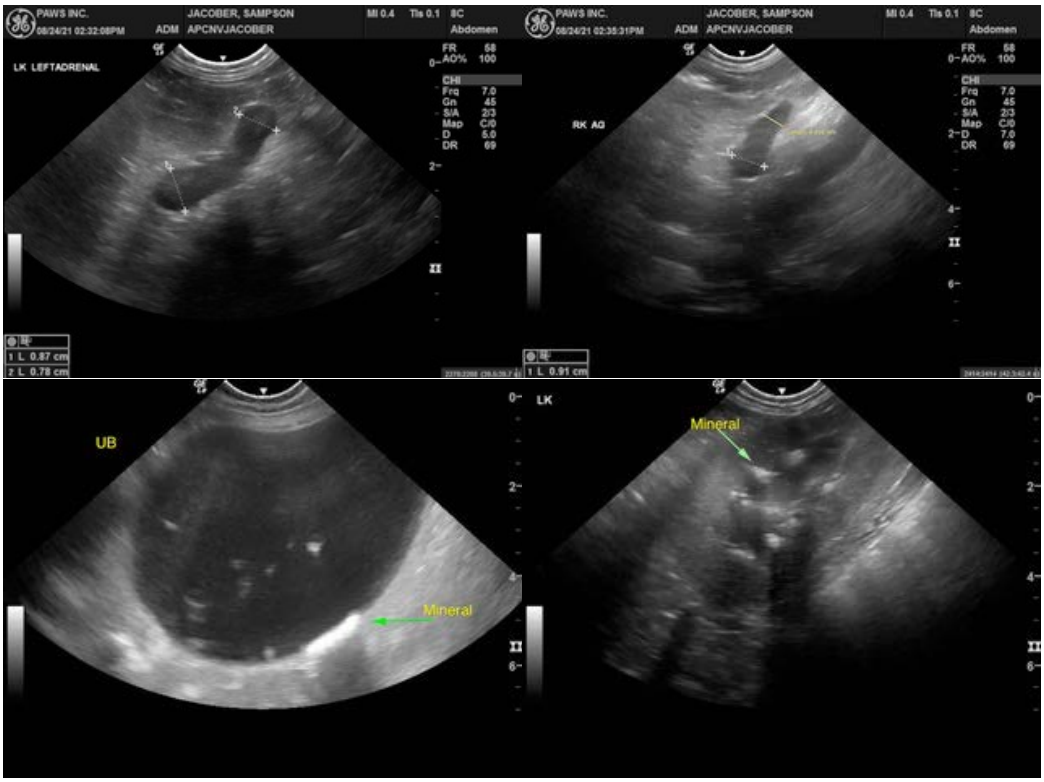
considered if clinically indicated.

No overt evidence of pancreatic neoplasia. The presentation of the pancreas may indicate age related pancreatic changes, while (in light of the elevated spec cPL) potential for chronic pancreatic inflammation (which may present essentially sonographically normal) may be possible.

The shadowing gastric ingesta may indicate post-prandial presentation. However, some degree of metabolic gastric stasis may be considered if documented NPO. Additionally, the possibility of gastric foreign material (given the shadowing nature of the ingesta) cannot be definitively excluded. Radiographic or sonographic monitoring for evidence of normal gastric emptying is recommended if clinically indicated.



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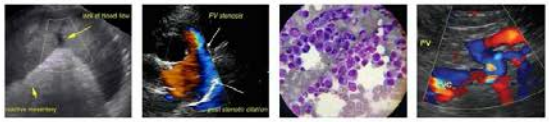

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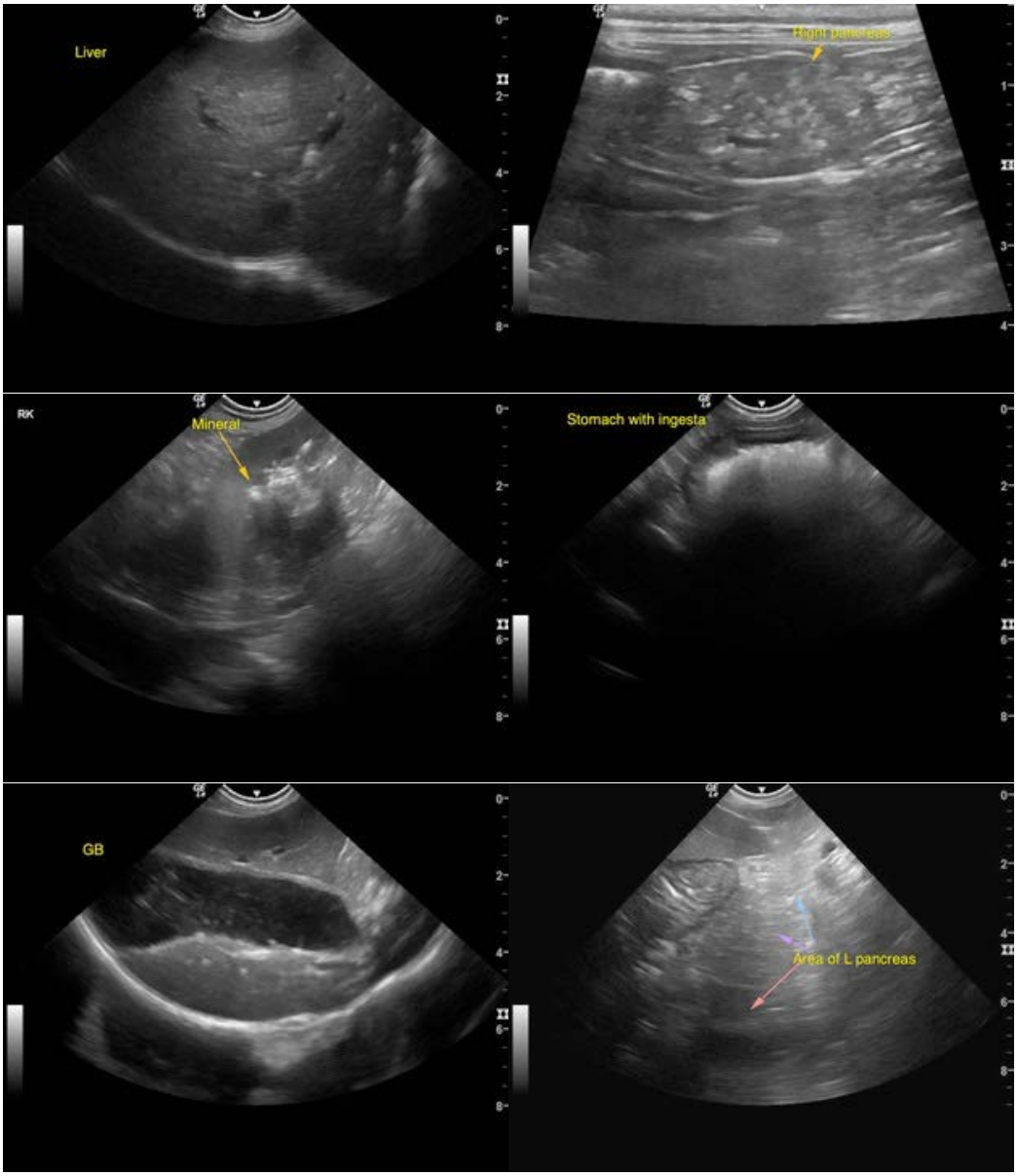

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com