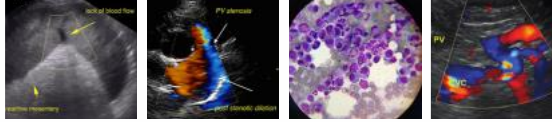


PATIENT

Piper Strunk

SPECIES

Canine

BREED

Terrier Mix

SEX

Spayed Female

AGE

9 Years

WEIGHT

8.4 kg

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Silver Creek AC

REFERRING VET

Dr. Tangeman

INVOICE NUMBER

16219

DATE

6/21/22

PRESENTING CLINICAL SIGNS

History: Patient presented for routine dental cleaning, but on pre-op blood work we found an ALT of 133 and an ALKP of 1687. Owner says patient is not lethargic, not PU/PD, and no excess panting. Owner elected to an abdominal ultrasound instead of the dental to evaluate the liver and adrenal glands. Last years blood work in July 2021 had an ALT of 131 and an ALKP of 600. Abnormal PE/Chem/CBC/UA Results: ALT: 133 ALKP: 1687

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

Left kidney is normal is size (4.56 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Right kidney is normal is size (5.02 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

Left adrenal gland is normal in size (1.65 cm in length 0.31 cm at cranial pole and 0.53 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (1.78 cm in length 1.0 cm at cranial pole and 0.45 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

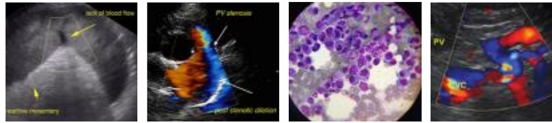
Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation. Some of the mucus/debris/sand appears adhered to the wall and a benign polyp cannot be ruled out but is considered less likely.



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Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. Visible capsule is smooth and normal in contour. Visible pancreatic parenchyma is homogenous and unremarkable. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

ULTRASONOGRAPHIC FINDINGS

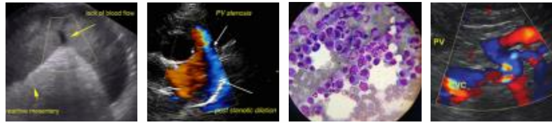
- Hyperechoic hepatomegaly. This appearance is most consistent with a benign steroid (endocrine) hepatopathy or reactive or idiopathic hepatopathy. Infiltrative neoplasia such as round cell neoplasia is also possible but considered less likely.

- Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili. Some of the debris adhered to the wall could be masking a small benign polyp.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Differentials are vast and non-specific. Differentials include, but are not limited to, benign nodular hyperplasia which occurs in 70% of older dogs and often does not result in an abnormal ultrasound, reactive or idiopathic/vacuolar hepatopathy, cholestasis and/or hyperadrenocorticism as well as many chronic non-hepatobiliary diseases such as chronic infections/inflammation from dental disease, IBD, neoplasia, hyperlipidemia, hypothyroidism, chronic pancreatitis, chronic stress, etc.

There is no ultrasonographic evidence of cholestasis. Adrenocortical testing such as a low dose dexamethasone suppression test could be considered if clinical signs of hyperadrenocorticism are present. Ursodiol could be considered if gallbladder sludge is noted. A fine needle aspirate of the liver could be considered if patient's coagulation status is appropriate. Otherwise, recommendations include addressing any other concurrent disease



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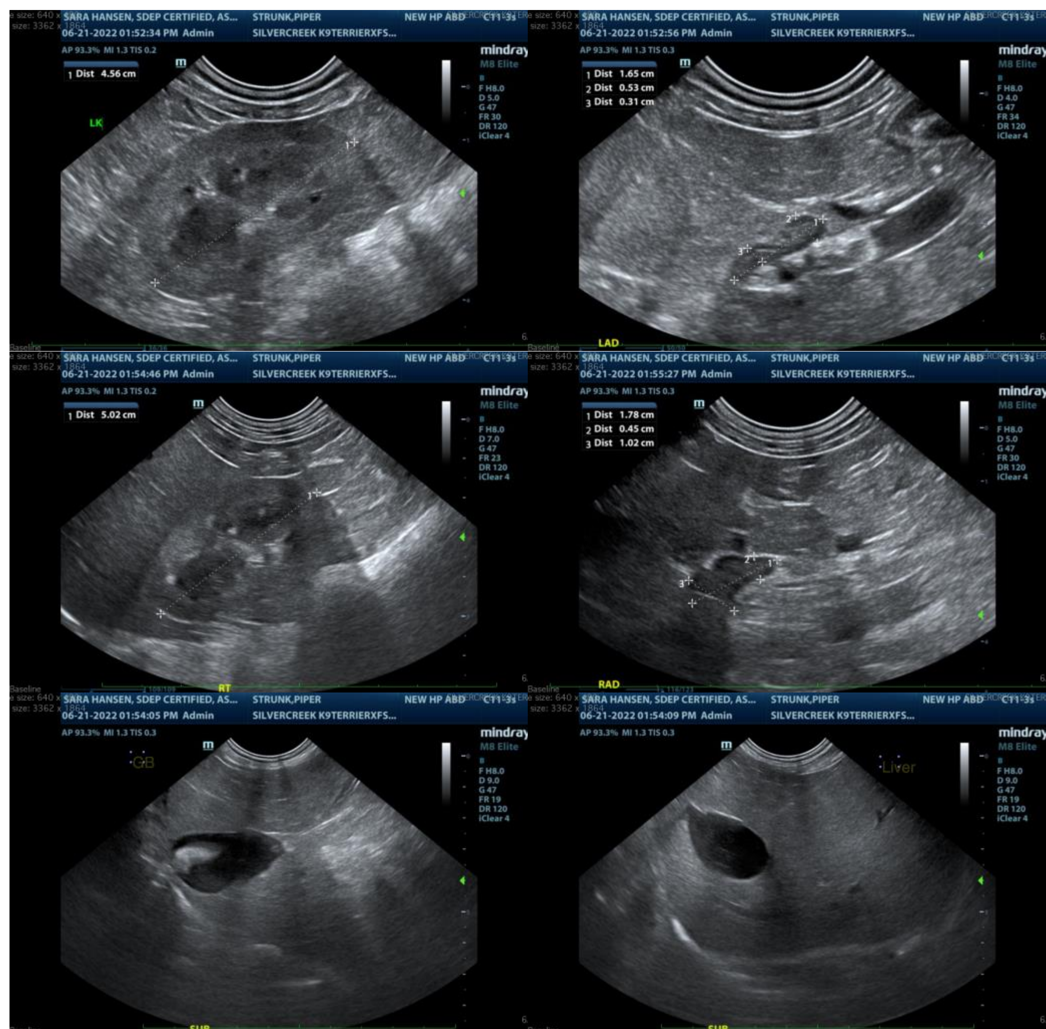
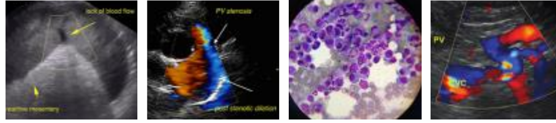
and monitoring. If values are progressive, recheck imaging is recommended.

Specifically for this patient, given the lack of clinical signs for hyperadrenocorticism and the gallbladder changes, recommendations include a course of broad-spectrum antibiotics, such as amoxicillin or clavamox in addition to ursodiol with monitoring of the ALP for improvement. If the ALP improves, continue antibiotics until the ALP plateaus with continuation of ursodiol long-term, if there is improvement. If ALP does not improve, continuing with medications is not necessary. If clinical signs of hyperadrenocorticism develop down the road, testing for hyperadrenocorticism in the form of a low-dose dexamethasone test could be considered. However, testing is not indicated at this time.



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.

Beth Johnson, DVM DACVIM
Beth.Johnson@SonoPath.com

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