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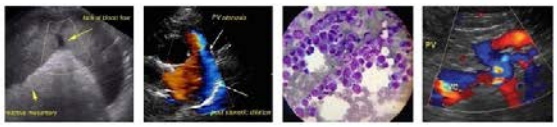


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Darlin Ertel

SPECIES

Canine

BREED

Schnauzer

SEX

Spayed Female

AGE

10 Years

WEIGHT

7.8 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Main Street AH

REFERRING VET

Dr. Morris

INVOICE

38043

DATE

5/26/22

PRESENTING CLINICAL SIGNS

Seen on May 18, 2022 for second opinion as owner concerned in regards to lump on abdomen. PE - BAR, lymph nodes NAF, m.m. pink and moist, HR 116 with V/VI systolic heart murmur, respiration NAF, 6cm x 4cm x 3cm thick palpable mass with loss of domain/displacement of gastrointestinal (r/o abdominal mass, renomegaly). Radiographs done in clinic (will be emailed separately), which large abdominal mass seen, kidney visible with multiple bladder stone present. Owner ok'd proceeding with abdominal ultrasound. At previous clinic, seen for suspected lick granuloma and noted a 6cm firm, sensitive structure palpable on mid-cranial abdomen on April 4, 2022 (r/o organomegaly, neoplasia, pancreatitis +/- steatitis). Recommended radiographs +/- ultrasound which owner declined. Bloodwork done at clinic (will be emailed separately). Glucosamine and Vetmedin. r/o abdominal mass
Abnormal PE/Chem/CBC/UA Results: Please see attached labwork and rads.

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, or masses. There is a small amount of hyperechoic shadowing material within the dependent portion of the urinary bladder, most consistent with a small pile of mineralized debris/small stones.

The left kidney has a normal shape and size (3.73 cm). Overall echogenicity is normal with adequate 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 right kidney has a normal shape and size (4.75 cm). Overall echogenicity is normal with adequate 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 0.34 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.

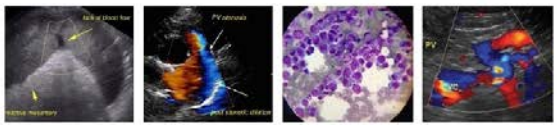
The right adrenal gland is normal in size. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is large and irregular. The blood flow through the hilus and splenic parenchyma appears normal. There is a very large, hyperechoic mixed echogenic, solid mass effect originating from the head of the spleen, measuring approximately 0.65 cm x 0.58 cm. There is no surrounding free fluid, and minimal inflammation.

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is mildly 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.



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The gallbladder 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 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 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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.

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

A brief view of the heart was submitted. No significant pericardial effusion was seen.

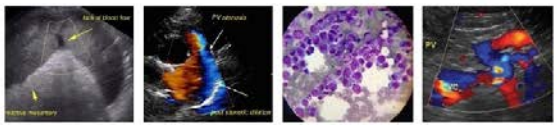
ULTRASONOGRAPHIC FINDINGS

- Hyperechoic shadowing foci within the urinary bladder – most consistent with numerous small calculi. These findings are supported by the presence of stones on abdominal radiographs. Recommend urinalysis and culture (these may be small enough to hydropulse or urinate out(?).
- Large, solid, mixed echogenic splenic mass – This could represent a benign or neoplastic lesion. Recommend splenectomy for both diagnostic and therapeutic purposes.
- Mildly 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 most significant finding on today's scan is a very large cranial abdominal mass, which appears to be arising from the head of the spleen. Recommend splenectomy for both diagnostic and therapeutic purposes.

The liver is mildly heterogeneous. This could be an age related change, and the enzyme elevations could



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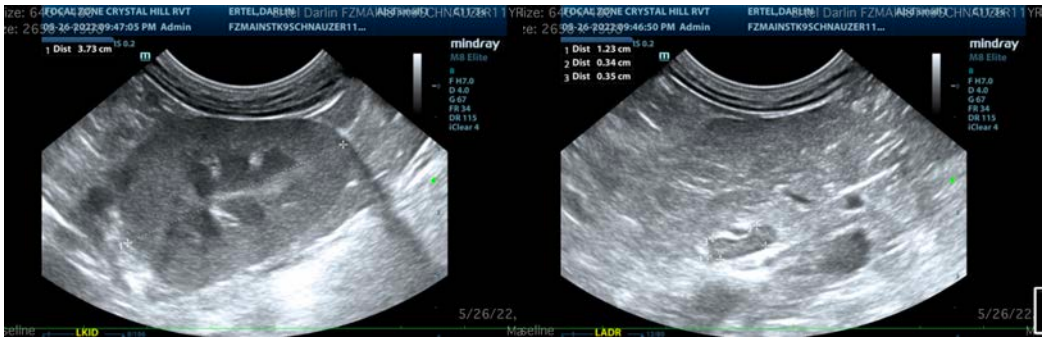
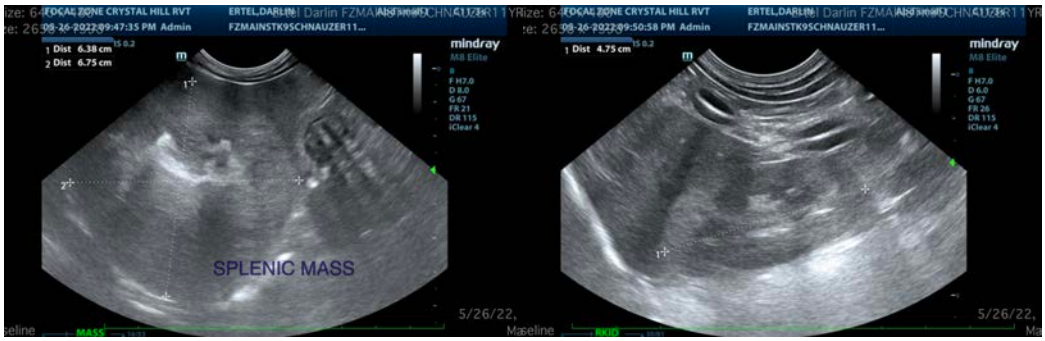
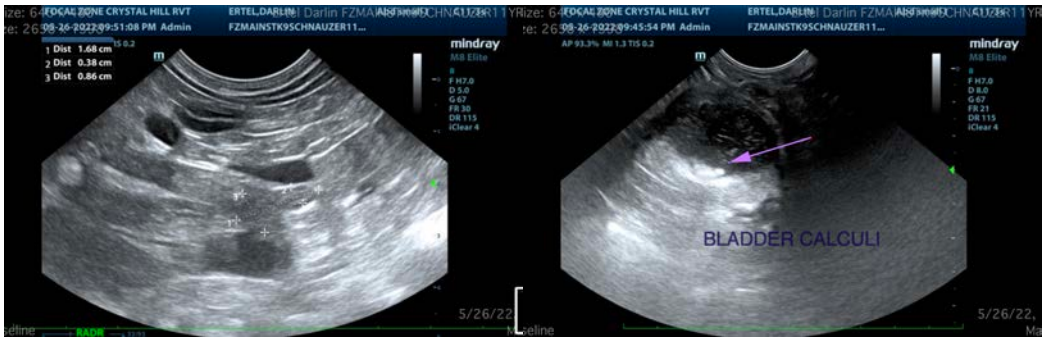
be reactive secondary to the splenic mass, but a primary hepatopathy is also possible. Recommend primary dealing with the splenic mass and obtaining a liver biopsy at the time of surgery (recommend coagulation profile prior to surgery).

Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Additionally, there are numerous small calculi present. Correlate this finding with abdominal radiographs to try and determine if cystotomy is necessary for removal. Recommend urinalysis and culture. If clinically appropriate, the stones could be removed at the time of the splenectomy(?).







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)

kathleen.sennello@sonopath.com