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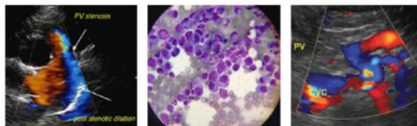

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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PATIENT
Ghost Klann

SPECIES
Feline

BREED
Bengal

SEX
FS

AGE
7yr

WEIGHT
6.9lb

INTERPRETED BY
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY
Amy Mayhew LVT

HOSPITAL NAME
SVS Imaging Michigan

REFERRING VET
Town Center Veterinary Associates

INVOICE
12214ag

DATE
11/21/2022

PRESENTING CLINICAL SIGNS

Assessment: Mid abdominal mass- GI lymphoma vs other. Some vomiting and not eating well.

Abnormal PE/Chem/CBC/UA Results: Diagnostics: 2 view abdominal rads- mass effect mid-abdomen, loss of serosal detail dorsally Senior screen to antech- pending Tx: none Plan: Discussed concerns for abdominal mass with possible free abdominal fluid-mentioned abdominal ultrasound being the ideal source of imaging to help determine extent/location of mass, and if surgery is an option. Other options would be focusing on QOL support. I will contact O with lab results tomorrow, and we can further discuss options and how he would like to move forward. Rx: none yet Exam findings and abnormal lab values: Talked to both Mr and Mrs-major concern on BW is the marked elevation of a couple of the liver enzymes (ALT and AST). With our PE and x-ray findings yesterday of an abdominal mass, this concerns me for possible liver metastasis. I did discuss and recommend abdominal ultrasound with O, but as they may consider surgery or chemo depending on results, I think it would be best to refer them out to an oncologist and have diagnostics performed with them as our in clinic options are going to be limited. I am going email over a referral sheet. In the meantime, we will start pt on steroids to hopefully help her feel a little bit better and maintain her weight. O reports pt ate some wet food last night and seems to have good energy. If owners decide they do not want to see an oncologist, we can maintain QOL to the best of our abilities or set up a mobile abdominal ultrasound scan. I did discuss that to definitively diagnose lymphoma or other cancerous masses, an intestinal biopsy under general anesthesia may be necessary, however the oncologist will determine the best course of action. I do not have any other major concerns as far as BW goes-the platelet count is on the low end, but may be normal as the blood draw yesterday was a little difficult. O to let us know where they end up taking pt so that we can get records and x-rays sent over. EDB TTO-O said oncologist will not see pt without an FNA. Explained to O that obtaining an FNA of the mass would required sticking a needle into pts abdomen, and is not something I feel comfortable obtaining so I would have to have our ultrasound tech come and perform an abdominal ultrasound and collect the sample. Pt may need to be sedated for this. Our ultrasound tech is on vacation for the next 2 weeks, but I will have an estimate made and emailed to O. O can then let us know if he would like us to reach out to her and get the ultrasound scheduled.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

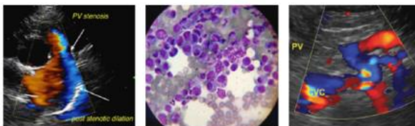
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal size and margination were present in the left kidney. The right kidney was subnormal in size compared to the left. A normal 1:3 cortex / medulla ratio with mild loss of corticomedullary definition was present. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with minor left kidney pyelectasia. Pinpoint medullary mineral was present. Cranial and caudal infarcts were present in the right kidney. The left kidney measured 3.7 cm in length. The right kidney measured 3.1 cm in length.

The area of the aortic trifurcation was free of pathology.

The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.

Adrenal Glands



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The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.31 cm width. The right adrenal gland was uniform in contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.41 cm width.

Spleen

The spleen exhibited borderline enlargement measuring 1.0 cm width at the level of the mid spleen with a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. 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. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver

The liver exhibited generalized enlargement with primarily uniform to homogeneous parenchyma. A moderately sized asymmetrical non-homogenous cystic mass appearing to involve the caudal mid to right and potentially caudate liver was present measuring ~ 6.0 cm in diameter. The mass extended to the level of the gastric axis. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The common bile duct was dilated and tortuous without overt post hepatic obstruction. The common bile duct measured 0.2 cm diameter. This finding was not consistent with overt post hepatic obstructive criteria.

Gastrointestinal

The stomach presented intact wall layering in the fundus and gastric body with mild retained variably echogenic fluid and chyme. Uniform mild thickening of the pylorus with decreased mural echogenicity and loss of discernable wall layering was present. The pylorus wall measured up to 0.7 cm in width. The normal appearing gastric body wall measured 0.28 cm in width.

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. The duodenum wall measured 0.24 cm width. The jejunum wall measured 0.20 cm width.

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

Pancreas

The pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

Free Abdomen

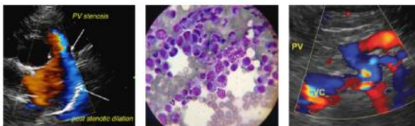
Focally enlarged gastric lymph node was present adjacent to the pylorus. This lymph node was homogenous, mildly hypoechoic and smoothly marginated. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. The node measured 1.2 cm in diameter.

Subtle evidence of perigastric hyperechoic mesentery was present.

Scant to mild volume peritoneal free fluid was present.

ULTRASONOGRAPHIC FINDINGS

- Hepatomegaly with non-homogeneous cystic mass



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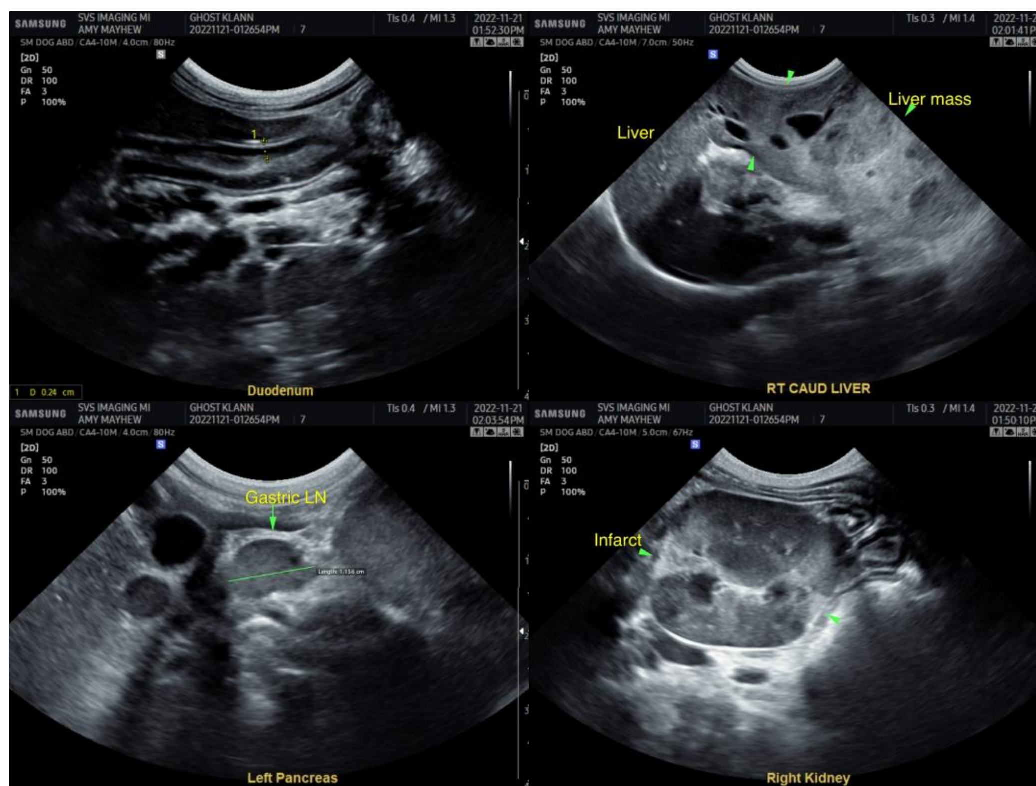
- Uniformly thickened pylorus exhibiting hypoechoic mural echogenicity and loss of wall layering, mild gastric fluid/chyme
- Suspect concurrent mild pancreatitis
- Borderline splenomegaly with symmetrical contour and homogeneous parenchyma
- Mild volume peritoneal free fluid and focal gastric lymphadenopathy

Secondary

- Non-specific mild chronic renal changes with right kidney cortical infarcts

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Concern for hepatic neoplastic mass with early infiltrative pyloric criteria and associated gastric reactive benign or early neoplastic/metastatic lymphadenopathy is warranted. Correlation with pending hepatic mass cytology is recommended. Pyloric biopsies +/- concurrent gastric lymph node and screening splenic FNA for further staging could be considered. Oncology consult is recommended pending hepatic mass cytology. Three view chest radiographs are recommended if not done to assess for occult thoracic pathology.



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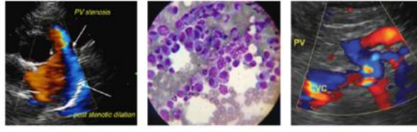

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com