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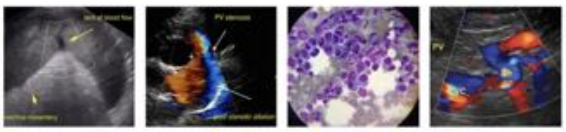


Charleston Mobile Veterinary Services
IMAGING PERFORMED BY
CharlestonMobile.Net 800.403.5408

PATIENT

Mary Kate Atkay

SPECIES

Canine

BREED

Chihuahua Mix

SEX

Spayed Female

AGE

1/26/12

WEIGHT

2.97 kg

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

HOSPITAL NAME

Sun Dog Cat Moon VC

REFERRING VET

Kim Wilson

INVOICE

12570

DATE

3.30.23

PRESENTING CLINICAL SIGNS

Clinical Exam Findings: Intermittent vomiting (3-4 x week), mild lethargy, inappetence, most recently anorexia. Resolved with Cerenia, appetite improved. Previous history of a left adrenal mass, a liver mass and a splenic nodule. Intermittent vomiting for 3-4 weeks and inappetence for the last week. Has improved with Cerenia. Most-recent bloodwork showed an albumen of 2.4. ALP 678.

Exam nonpainful abdomen, no masses palpated. Vitals wnl. Head tilt secondary to previous vestibular episode.

Abnormal lab-work values: Albumin 2.4 (2.7-4.4). Alk Phos 678
Current Medications: Cerenia

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and visible portion of the proximal urethra are normal.

The left kidney is normal in size (3.37 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. A hyperechoic medullary band is observed at the corticomedullary junction. Hyperechoic shadowing diverticular foci are visualized. Mild to moderate pyelectasia is present (0.33 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.00 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. A hyperechoic medullary band is observed at the corticomedullary junction. Mild pyelectasia is present (0.15 cm in the longitudinal plane). There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is enlarged (1.86 cm at cranial pole) (0.42 cm at caudal pole) with an irregular shape. A 1.89 x 1.72 cm hyperechoic to slightly heterogenous mass is observed at the cranial- to mid-aspect and appears to extend into the caudal pole. In the remainder of the gland, echogenicity and detail are normal. Surrounding vasculature appears normal with no obvious evidence of vascular invasion.

The right adrenal gland is in normal size (0.47 cm at cranial pole) (0.37 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is subjectively overall normal in size. A 1.01 x 0.65 cm heterogenous nodule is observed approximately mid-spleen. The lesion causes slight capsular expansion at the medial aspect. The remaining parenchyma is homogenous. Splenic vasculature appears normal with no obvious evidence of thrombosis.

Liver

The liver is subjectively prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen. A 4.25 x 2.30 cm mildly heterogenous mass effect is observed deep on the left side. The remaining parenchyma is homogenous. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic, partially dependent sludge is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal
The gastric lumen is not distended. The gastric wall in the region of the fundus is normal to borderline thickened (up to 0.30 cm) with retention of the normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall is normal to moderately thickened (up to 0.45 cm). There is slight disruption in the normal 1:3 muscularis: mucosal ratio in some segments. There is evidence of mild mucosal speckling in some regions. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

Pancreas
The right limb of the pancreas is normal in size with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen
The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other
A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The bowel pattern, in conjunction with the patient's clinical signs, are suggestive of a protein-losing enteropathy. Top differentials include inflammatory bowel disease, lymphangiectasia, emerging lymphoma, infectious/parasitic disease, other.

- The hepatic mass has increased in size compared to the previous sonogram. Differentials include neoplasia versus a benign process (i.e., excessive regenerative nodular hyperplasia, other).

- The left adrenal mass has also grown slightly since the previous sonogram. Differentials include neoplasia (i.e., adenoma, adenocarcinoma, pheochromocytoma) vs. a non-neoplastic process (i.e., macronodular hyperplasia).

- The splenic nodule is similar in size (compared to the previous sonogram). Differentials include neoplasia (i.e., sarcoma, round cell tumor) vs. a focal benign process (i.e., lymphoid hyperplasia or similar).

Secondary Findings

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

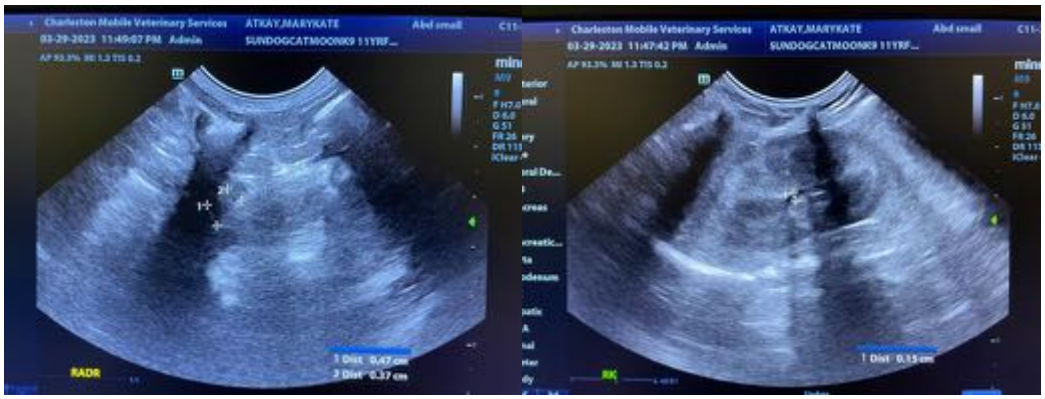
- Bilateral chronic age-related renal changes with pyelectasia and subtle left dystrophic mineralization. Changes are similar to the previous sonogram.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the bowel changes, consider the following:

    1. Fecal evaluation for ova and Giardia
    2. Consider transitioning to a low-fat, hypoallergenic, or hydrolyzed protein diet.
    3. Consider initiation of a probiotic (i.e., Proviable DC or Visbiome) if the patient is not already receiving one.
    4. Ultimately, GI biopsies (i.e., endoscopic or surgical) would be necessary to get a definitive diagnosis. Surgical biopsies are more likely to provide valid results as they are full thickness, versus endoscopic biopsies which are mucosal only.
    5. If a conservative approach is pursued, recheck bloodwork is recommended in 3-4 weeks. If the albumin remains persistently low, empirical treatment for inflammatory bowel disease/lymphangiectasia (i.e., corticosteroids) along with an appropriate diet can be considered (as long as the client understands the risks of treatment without a definitive diagnosis).
    6. Also consider a UPC +/- pre/post serum bile acids to assess for other causes of hypoalbuminemia.

- To evaluate for further growth of the hepatic left adrenal and splenic lesions, consider a recheck ultrasound in 3 months.

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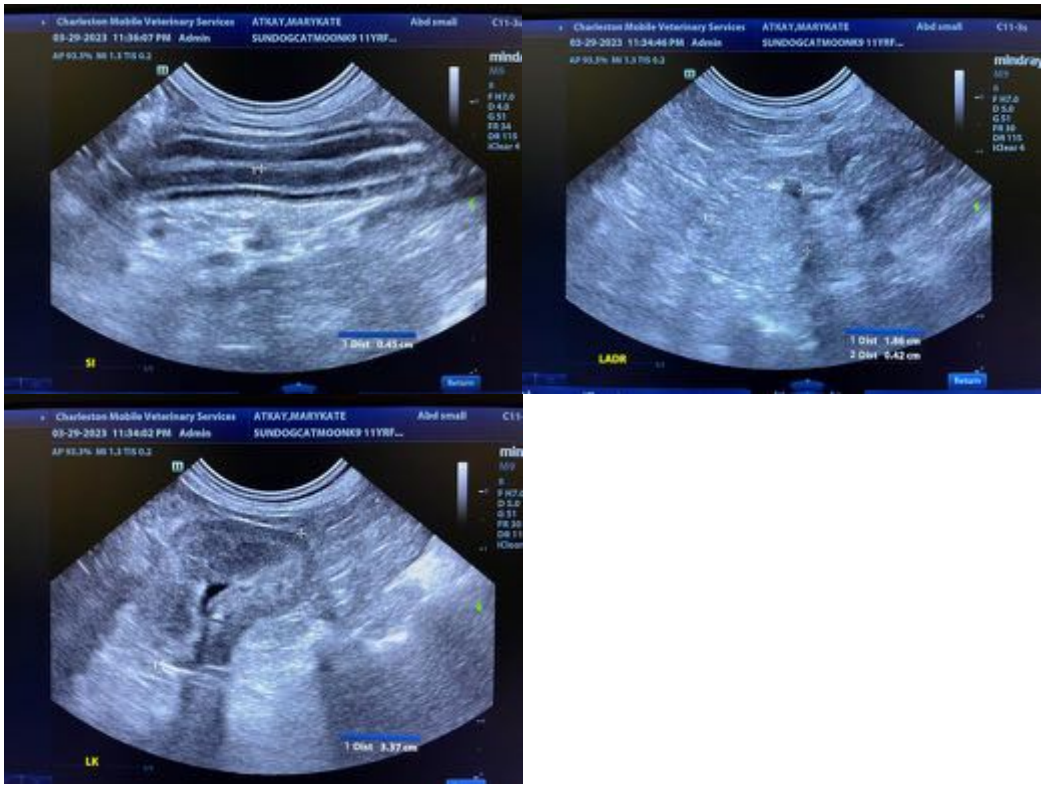

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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