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Clinical Sonography & Telecytology
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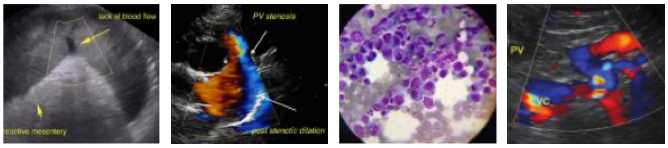

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PATIENT

Rascal Vangorder

SPECIES

Canine

BREED

Terrier Mix

SEX

Neutered Male

AGE

14 years

WEIGHT

10.6 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Aaron Deml, DVM

HOSPITAL NAME

Craig Road AH

REFERRING VET

Aaron Deml, DVM

INVOICE

12574

DATE

3.29.23

PRESENTING CLINICAL SIGNS

History: Presented today for chronic vomiting and decreased appetite. P has been seen for vomiting and diarrhea twice since November 2022. P was last seen on 3/20/23 and responded well to Cerenia, omeprazole, and metronidazole (BW noted is from 3/20). P is currently vomiting bile 2-3x a day, but diarrhea has stopped. P has not eaten since last night.

Abnormal PE/Chem/CBC/UA Results: Elevated ALP: 348 (20-150) Elevated ALT: 206 (10-118) Survey abdominal radiographs revealed mild small intestinal distention with no other significant findings noted.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is slightly irregular. The bladder is moderately distended. Luminal contents are anechoic. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The prostate is normal in size (0.79 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (3.72 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.20 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The caudal pole of the left adrenal gland is visualized and is normal in size (0.45 cm in width) with normal shape, glandular echogenicity and detail. The phrenicoabdominal vein and surrounding vasculature are normal.

The region of the right adrenal gland is evaluated. No obvious pathology is observed in this region.

Spleen

The spleen is normal in size (1.10 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is not visualized in its entirety. In the visualized portions, the liver is prominent in size with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogenous in appearance. An approximately 1.00 cm cystic lesion is observed in the region of the right medial lobe. A few hyperechoic nodules are also seen. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

What is thought to be gall bladder is not completely visualized. The wall appears mildly thickened and hyperechoic. Echogenic debris is observed within the lumen.

Gastrointestinal

The lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally fluid-distended (mild). The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. 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 visible with normal curvilinear peripheral contours. The parenchyma is largely hyperechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated (0.23 cm in diameter). 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The diffuse hepatic parenchymal changes are nonspecific and could be secondary to regenerative nodular hyperplasia, vacuolar hepatopathy, inflammatory disease, hepatotoxicosis (i.e., copper), fibrosis, infiltrative neoplasia (less likely), or some combination thereof. A hepatic cyst is observed in the region of the right medial lobe. This is likely a benign incidental finding.

- Suspected gall bladder wall thickening, a finding that is suggestive of cholecystitis.

- Mild small intestinal ileus

  *An obvious cause for the patient's clinical signs is not definitively identified in this study. Considerations include underlying metabolic issue (i.e., hepatobiliary disease), microscopic gastrointestinal disease (i.e., food allergy/intolerance, inflammatory bowel disease, infectious/parasitic disease), chronic intermittent pancreatitis, other.

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

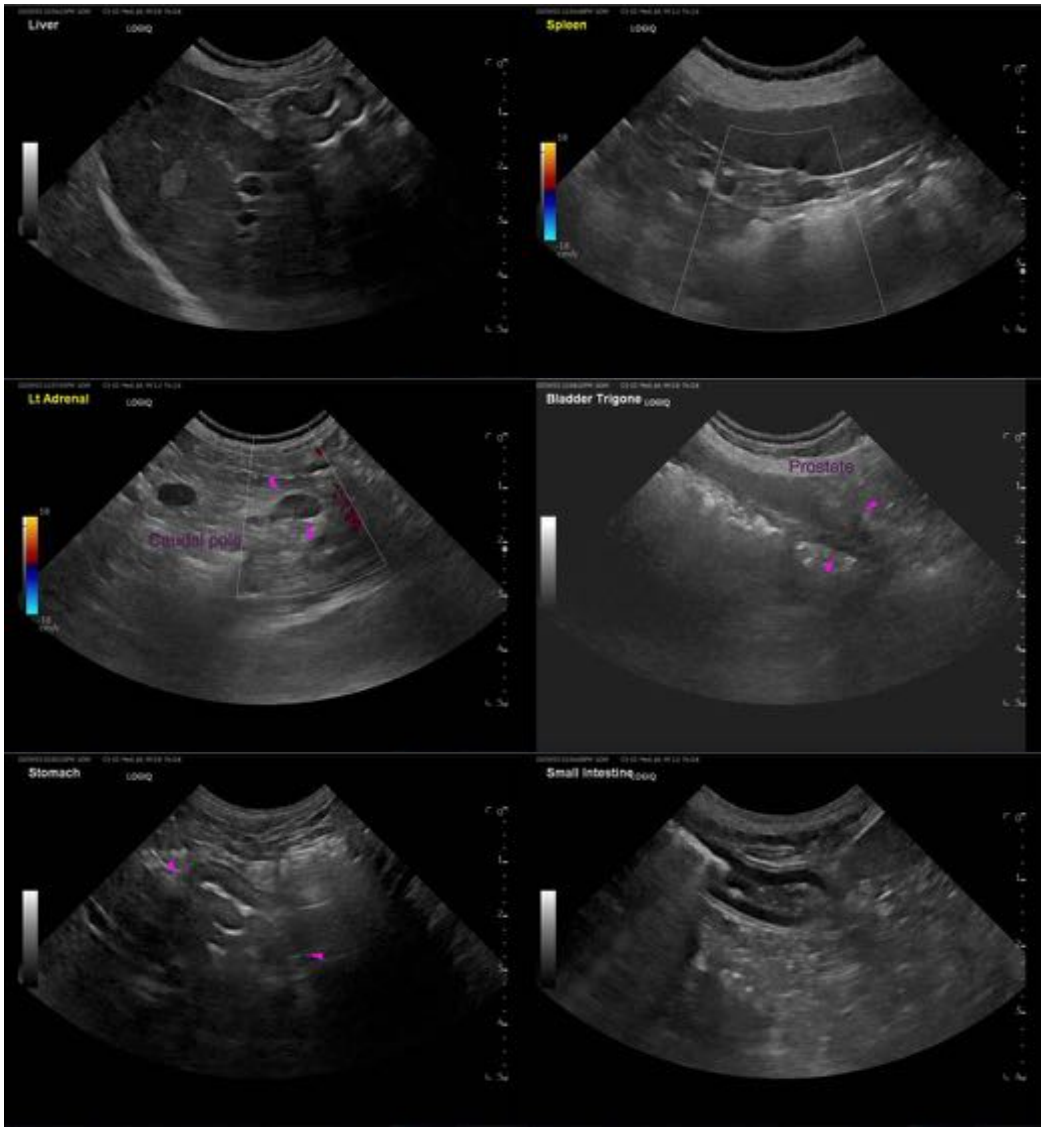
- Consider obtaining additional sonographic images of the liver and gall bladder to further assess for pathology in these organs.

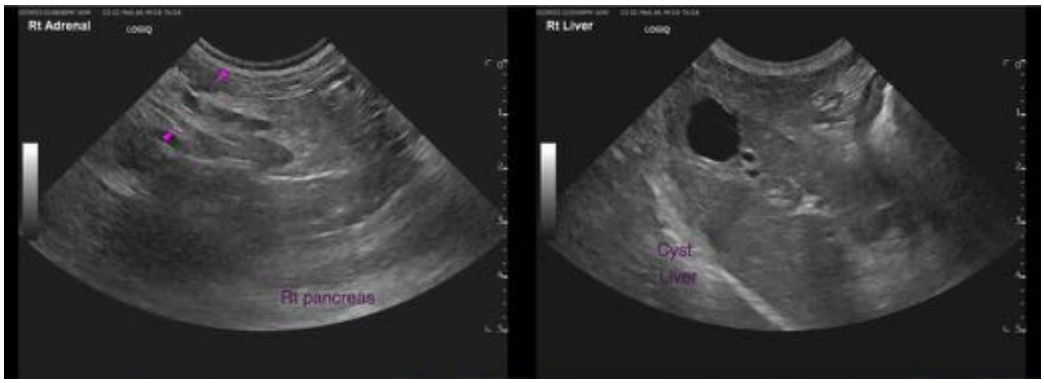
- Pre-and postprandial serum bile acids are also recommended to assess hepatic function.

- Other diagnostics considerations include the following:

  1. Fecal evaluation for ova and Giardia
  2. Prophylactic deworming with Fenbendazole

3. GI panel including serum cobalamin and folate, TLI, PLI and resting cortisol level
4. 2-4 week hypoallergenic or hydrolyzed protein diet trial
5. Ultimately, GI and/or liver biopsies may be necessary to get a definitive diagnosis. If pursued, thoracic radiographs should be performed prior to anesthesia. In the meantime, symptomatic care is recommended along with initiation of a probiotic as well as a fiber supplement (i.e., Metamucil or Konsyl).





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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