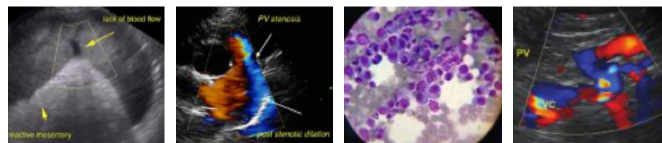

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1-800-838-4268 info@sonopath.com

PATIENT
Sole Sosia

SPECIES
Canine

BREED
Samoyed

SEX
Female, spayed

AGE
10 Yrs.

WEIGHT
10.5 lbs.

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

IMAGING PERFORMED BY
Dr. G. Ferrer

HOSPITAL NAME
Paseos VC

REFERRING VET
Dr. Martes

INVOICE
13801

DATE
8/9/22

PRESENTING CLINICAL SIGNS

History: Presented for an abdominal ultrasound to evaluate depression, decrease appetite and vomiting. Pt vomited once on 8/4/22. then vomited food, yellow liquid and saliva 6-7 times 8/5/22 lethargic. PT also has diarrhea and not eating well. Pt has a history of diabetes and is on vetsulin 6U BID.
Abnormal PE/Chem/CBC/UA Results: CBC: neutrophilia 12.25k (2.95 - 11.64) CHEM: hyperglycemia 569 (70 - 143), no ALT value, increased ALP 1871 (23 - 212), increased GGT 21 (0 - 11), hypercholesterolemia 448 (110 - 320), hyponatremia 140 (144 - 160), hypochloremia 100 (109 - 122) ear cytology: Cocci + AU

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The left kidney is normal size (6.57 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild loss of corticomedullary distinction. Trace pyelectasia is present (0.15 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

The right kidney is normal size (7.16 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Trace pyelectasia is present (0.21 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is normal in length (0.52 cm at cranial pole) (0.33 cm at caudal pole) (2.85 cm in length) with a flattened contour. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

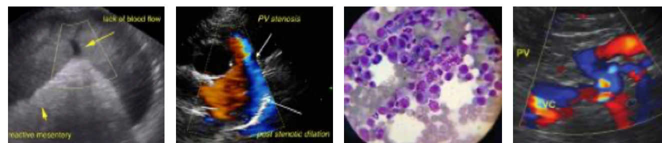
The right adrenal gland is normal size (0.51 cm at cranial pole) (0.48 cm at caudal pole) with a flattened contour. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.63 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few ill-defined myelolipomas are observed in the region of the hilus. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogeneous in appearance. No distinct focal lesions are observed. Intrahepatic biliary tracts are normal. The hepatic vasculature is questionably mildly dilated. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of suspended echogenic debris is observed



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within the lumen. In addition, a 0.51 cm cholelith is suspected in the region of the gallbladder neck. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. 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. No obstructive disease is noted.

Pancreas

The right limb of the pancreas is prominent in size with irregular peripheral contours. The parenchyma is hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is visible but not overtly dilated. The left limb is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance.

Free Abdomen

There is no evidence of free fluid. At least 2 medial iliac lymph nodes are visualized, the largest measuring 1.06 cm. In addition, a 2.94 cm mesenteric lymph node is seen.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

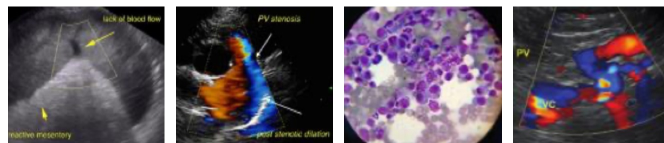
- The pancreatic changes in the right limb are suggestive of pancreatitis. It is unclear whether this is the sole cause of the patient's clinical signs or if another disease process (i.e., hepatopathy) is also at play.
- The hepatic parenchymal changes are non-specific and may be secondary to an inflammatory hepatopathy, hepatotoxicosis (i.e., copper), Leptospirosis, other hepatopathy +/- concurrent age-related change (i.e., regenerative nodular hyperplasia and/or vacuolar hepatopathy).

Secondary Findings:

- Bilateral age-related degenerative renal changes.
- The flattened adrenal glands may be a normal variant or could be consistent with early atrophy (i.e., secondary to hypoadrenocorticism).
- Possible small cholelith, incidental.
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- A urinalysis to assess for ketonuria is recommended to help determine if ketoacidosis is present.
- Regarding the elevated liver enzymes, an ALT reading would be useful in determining if a significant hepatopathy is present. If the ALT is substantially elevated, consider hepatic tissue



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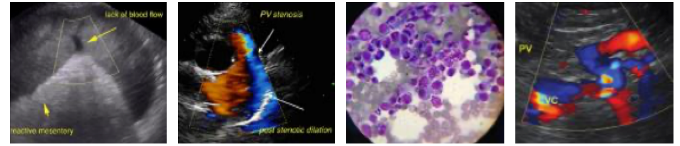
sampling (i.e., fine needle aspirate or surgical biopsy). If surgical biopsies are pursued, aerobic and anaerobic bile cultures are recommended along with acquisition of additional hepatic tissue samples for potential copper quantitation. If surgery is pursued, three-view thoracic radiographs and clotting times (i.e., PT/PTT) should be performed prior to anesthesia. Leptospirosis testing Blood/urine PCR, serology) should also be considered, particularly if the liver enzyme elevations are acute in nature.

- Consider a CPLI to further determine if pancreatitis is present.
- While awaiting test results, empirical treatment for pancreatitis/bacterial cholangiohepatitis is recommended including fluid therapy, broad spectrum antibiotics and symptomatic care.
- Regular insulin should be administered as needed until the patient's appetite normalizes.



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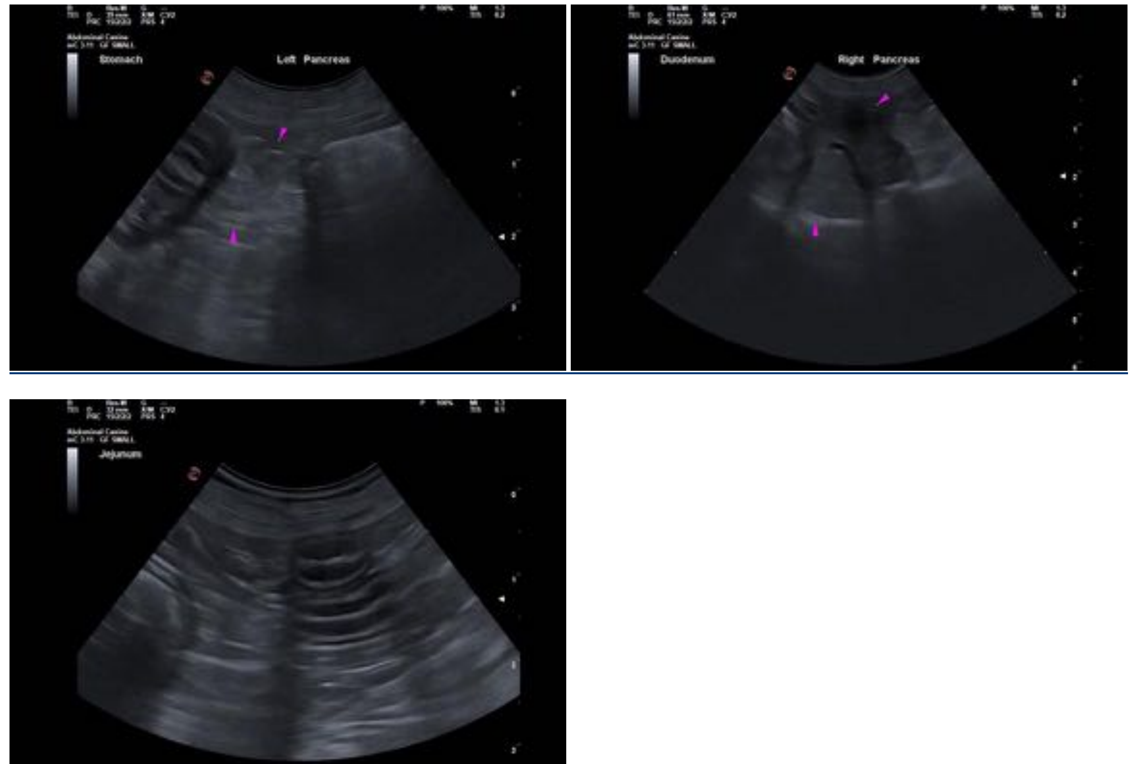

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
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