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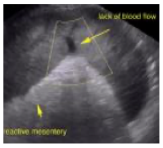
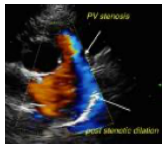
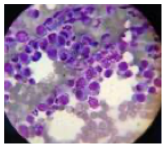
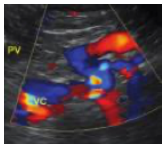
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT
Oreo Rodriguez

SPECIES
Canine

BREED
Mixed Med Breed

SEX
Neutered Male

AGE
8 years

WEIGHT
20.8 lbs

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

IMAGING PERFORMED BY
Dr. G. Ferrer, DVM

HOSPITAL NAME
Paseos VC

REFERRING VET
Dr. F. Ortiz Vidal, DVM

INVOICE
11375

DATE
8.8.22

PRESENTING CLINICAL SIGNS

History: Presented for evaluation as pt was having vomiting and no eating well. No diarrhea. The patient has sclera, pinna and mucus icterus.

Abnormal PE/Chem/CBC/UA Results: CBC: Thrombocytopenia 110 (148 - 484), MONO: 1.33 (0.16 - 1.12), EOS: 1.51(0.06 - 1.23), MPV:14.9(8.7 - 13.2). RETIC: 115.3 (10.0 - 110.0) Chemistry: ALT: 412(10 - 125), ALKP:399 (23 - 212), TBIL:10.4 (0.0 - 0.9), CHOL: 90 (110 - 320), AMYL: 314(500 - 1500), K: 2.9(3.5 - 5.8), CL: 102 (109 - 122) Fecal: NOS

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. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The **prostate** is normal in size (0.93 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The **left kidney** is normal size (5.01 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. A small cortical cyst is observed at the lateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter.

The **right kidney** is normal size (4.80 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present. There is no evidence of nephroliths, infarcts or hydroureter.

Adrenal Glands

The **left adrenal gland** is normal size (0.59 cm at cranial pole) (0.63 cm at caudal pole) (2.13 cm in length); normal shape; homogenous parenchyma. 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 (0.99 cm at the cranial pole) (0.49 cm at caudal pole) (1.98 cm in length); normal shape; 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 normal in size (1.75 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 normal to slightly small in size with irregular peripheral contours. The parenchyma is hypoechoic relative to the spleen and mottled, bordering on nodular in appearance. Discreet masses are not identified. 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 diffusely thickened (up to 0.22 cm) and edematous with a "double-walled" effect. The lumen is completely filled with echogenic sludge. 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 ileocecocolic junction and colonic wall are normal. There is no evidence of an obstructive pattern.

Pancreas

The left limb of the **pancreas** is visible/prominent with slightly irregular peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat. No distinct focal lesions are observed. The pancreatic duct is not overtly dilated.

Free Abdomen

A small to moderate amount of anechoic free fluid is present. The mesentery throughout the organ is hyperechoic. A 1.20 cm **lymph node** is observed at the aortic trifurcation. The node is normal in shape and echogenicity. In addition, a few prominent mesenteric lymph nodes are seen, the largest measuring 0.15 cm.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The gall bladder wall changes could be consistent with cholecystitis, hypoalbuminemia, increased hydrostatic pressure (i.e., secondary to congestive heart failure), anaphylaxis (less likely), immune-mediated disease, other. Given the elevated liver values, cholecystitis is suspected. The gall bladder sludge could be secondary to cholestasis, fasting or a developing mucocele.

- The hepatic parenchymal changes are nonspecific and could be consistent with inflammatory disease (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis, Leptospirosis, or other hepatopathy.

- The ascites may be secondary to increased vascular permeability, increased hydrostatic pressure (i.e., due to portal hypertension) or low oncotic pressure (if applicable).

- Diffuse peritonitis, likely secondary to hepatic +/- pancreatic pathology.

- The pancreatic changes are suggestive of mild, acute or chronic pancreatitis.

Secondary Findings

- Bilateral, chronic, age-related renal changes

- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

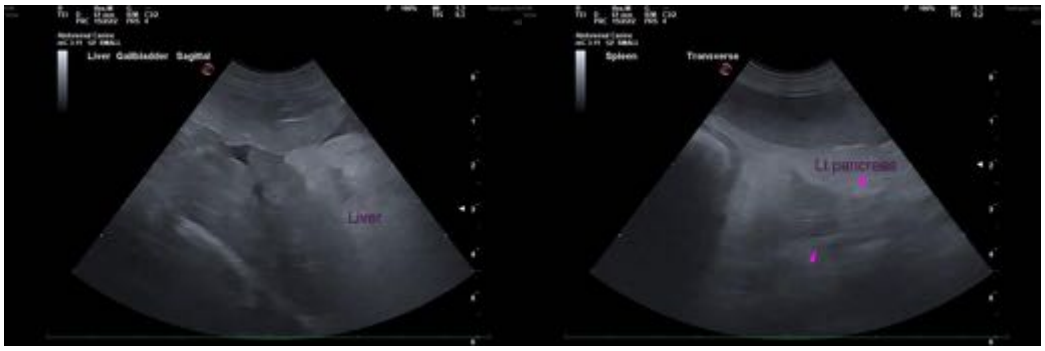
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

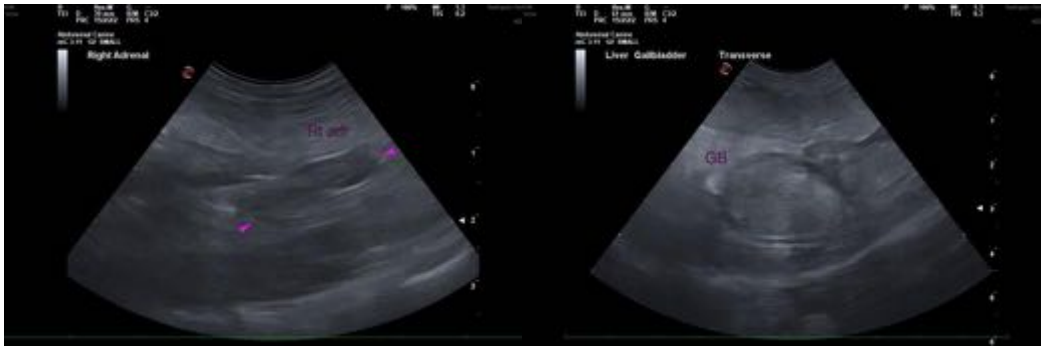
If an aggressive approach is desired, consider a surgical liver biopsy with aerobic and anaerobic bile cultures, +/- a cholecystectomy. If surgery is pursued, acquisition of additional hepatic tissue samples for potential copper quantitation is recommended.

Also consider Leptospirosis testing (i.e., blood and urine PCR, serology)

In the meantime, supportive care for cholecystitis/pancreatitis is recommended, including fluid therapy, broad-spectrum antibiotics, gastric protectants, antiemetics and hepatic antioxidants.

Three-view thoracic radiographs and clotting times (PT/PTT) are also recommended.





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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