



Boots Nadu

PRESENTING CLINICAL SIGNS

SPECIES

Canine

BREED

Pug

SEX

Male, neutered

AGE

2 Yrs.

WEIGHT

10.1 kg.

INTERPRETED BY

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

IMAGING PERFORMED BY

Erin Wicks

HOSPITAL NAME

Shores Veterinary
Emergency Center

REFERRING VET

Dr. Shonts

INVOICE

15223

DATE

8/23/23

History: Presented at our hospital flat out, newly dx diabetic, DKA, transferred here from rdvm. Hospitalized, liver values continue to climb. Hosp on insulin CRI and glucose.

Abnormal PE/Chem/CBC/UA Results: R ear infection Rdvm rads: enlarged spleen, loss of serosal detail in cranial quadrant of abd, gas filled intestines, no sign of FB Rdvm UA (free catch): ketones 3+; glu 4+; pro +1 8/22 rdvm: ALKP 1567; ALT 176; AMYL 154; BUN/UREA 51; Ca 7.7; Chl 88; GGT 26; GLU 632; Na 128; Tbil 2.0; TT4 <<0.5; HCT 33.6; HGB 11.6; WBC 20.18; Mono4.6; NEU 14.18; EOS .01; PLT 498; RBC 4.91 8/22 BG 378 8/23 Lym .82; EOS .02; RBC 4.21; HCT 29.7; Creat .2; Pi 1.8; Ca 7.7; Tp 5.0; ALB 2.1; Glu 133; Chol 379; ALT 170; ALP>993; GGT 45; Tbili 4.6; TCO2 16.4; PH 7.328; Na 138; iCa 1.12 CPL normal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder is distended. A small amount of suspended echogenic debris is observed within the lumen. No cystic calculi are observed. The region of the trigone and the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (6.59 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic to hyperechoic relative to the spleen and is mildly thickened and there is minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present (0.12 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (7.00 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is isoechoic to hyperechoic relative to the spleen and is mildly thickened and there is minimal to mild loss of corticomedullary distinction. Trace pyelectasia is present (0.12 cm in the transverse plane). There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.44 cm at cranial pole) (0.55 cm at caudal pole) (1.77 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.

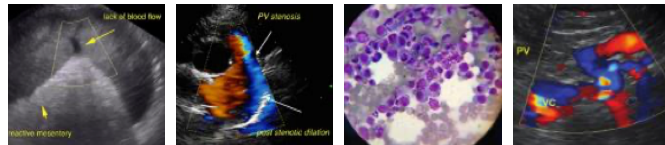
The right adrenal gland is normal size (xxx cm at cranial pole) (xxx cm at caudal pole) (xxx cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature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

Spleen

The spleen is normal in size (0.85 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 subjectively enlarged with swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and attenuating. No distinct focal lesions are observed. Vascular and biliary tracts



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are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of suspended echogenic debris/sludge is observed within the lumen. A small amount of debris is also adhered to the luminal surface. The cystic and common bile ducts are normal/not seen.

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The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. 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. There is no evidence of an obstructive pattern.

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Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

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Free Abdomen

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

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ULTRASONOGRAPHIC FINDINGS

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

- Suspected diffuse hepatopathy. Differentials include diabetic hepatopathy, inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), Leptospirosis, hepatotoxicosis, other hepatopathy.
- The gallbladder debris/sludge could be consistent with cholestasis, fasting or an emerging mucocele.
- The bilateral renal changes are most consistent with mild interstitial nephrosis/nephritis.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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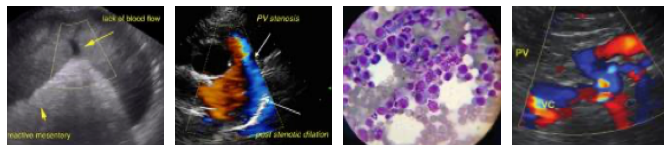
- Consider a urine culture and sensitivity to assess for occult infection.
- Also consider a cPLI to further assess for pancreatitis.
- Given the elevated liver values, consider the following:
 1. Leptospirosis testing (i.e., blood and urine PCR, serology).
 2. Hepatic tissue sampling (i.e., fine needle aspirate or biopsies (if clotting status is appropriate)). If biopsies are pursued, aerobic and anaerobic bile cultures are also recommended along with hepatic copper quantitation.
- While awaiting test results, symptomatic care for diabetic ketoacidosis is recommended, including regular insulin, fluid therapy, gastric protectants, broad spectrum antibiotics and electrolyte supplementation as needed.

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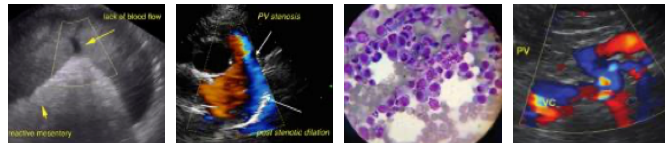
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com



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