



PATIENT

Chico Johnson

SPECIES

Canine

BREED

Chihuahua

SEX

Male, neutered

AGE

8+ Yrs.

WEIGHT

7.3 lbs.

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Dr. Beard

HOSPITAL NAME

Animal Care
Veterinary Center

REFERRING VET

Dr. Beard

INVOICE

14536

DATE

2/1/23

PRESENTING CLINICAL SIGNS

History: Diabetic, on insulin. Not eating well last 2-3 days. Vomited once last night.
Abnormal PE/Chem/CBC/UA Results: Icteric. CBC Neutrophilia, monocytosis, thrombocytosis; GHP hyperglycemia, ALT, SAP, GGT, Total Bilirubin high; CPL abnormal. Abdominal radiographs reveal enlarged liver.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to moderately distended. The wall in the region of the apex is normal to mildly thickened (up to 0.44 cm) with a smooth mucosal surface. The wall tapers to a normal thickness as it extends toward the urinary bladder neck. A small amount of mineralized sand +/- tiny calculi are observed within the lumen along with a small amount of suspended echogenic debris. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.71 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 (4.24 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Pinpoint hyperechoic foci are observed within the cortex. Trace pyelectasia is present (0.19 cm in the transverse plane). There was no evidence of infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size (4.20 cm in length) with a normal shape, smooth peripheral margins and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Trace pyelectasia is present. A few small non-obstructive nephroliths are visualized. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal size (0.49 cm at cranial pole) (0.46 cm at caudal pole); 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 (0.83 cm at cranial pole) (0.54 cm at caudal pole); 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 (0.65 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 slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. A 0.27 cm cystic lesion is observed on the left side, at the caudal aspect. The parenchyma is otherwise homogeneous in appearance. Vascular



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and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. A large amount of aggregated echogenic suspended sludge in a partially stellate to stellate pattern is observed within the lumen. The mesentery effacing the serosal surface of the gallbladder is mildly hyperechoic. The cystic and common bile ducts are normal/not seen.

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Gastrointestinal

The gastric lumen is mildly distended with ingesta. 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 segmentally dilated with chyme. 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. The lumen of the descending colon contains shadowing fecal material. No obstructive disease is noted.

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Pancreas

The right limb of the pancreas is normal 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.

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Free Abdomen

There is no obvious evidence of free fluid. The abdominal lymph nodes are normal/not visible.

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ULTRASONOGRAPHIC FINDINGS

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(*Small Animal Internal
Medicine*)

Primary Findings:

- Gallbladder mucocele with adjacent mild peritonitis. Concurrent cholecystitis is suspected.
- The hepatic parenchymal changes are non-specific and could be consistent with inflammatory disease (i.e., bacterial cholangiohepatitis, chronic hepatitis), vacuolar hepatopathy (i.e., idiopathic, endocrine), hepatotoxicosis (i.e., copper), Leptospirosis (less likely), other hepatopathy.
- Mineralized urinary bladder sand +/- cystic calculi. The urinary bladder wall changes are suggestive of cystitis.

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Secondary Findings:

- Minor age-related pancreatic remodeling.
- Minor bilateral chronic age-related renal changes with non-obstructive nephrocalcinosis, more pronounced in the right kidney.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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- Consider a cholecystectomy and liver biopsy. If pursued, thoracic radiographs and clotting times (PT/PTT) should be performed prior to anesthesia.
- If surgery is not pursued at this time, empirical treatment (i.e., broad spectrum antibiotic therapy, Ursodiol, hepatic antioxidants, symptomatic care) for cholecystitis/cholangiohepatitis

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is recommended with close monitoring of the patient's liver enzymes for worsening and close sonographic monitoring of the gallbladder for potential rupture.

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- To further evaluate for distinct cystic calculi, consider abdominal radiographs. If stones are present, a cystostomy with stone removal, analysis and culture can be considered. Alternatively, an attempt at medical dissolution is an option.

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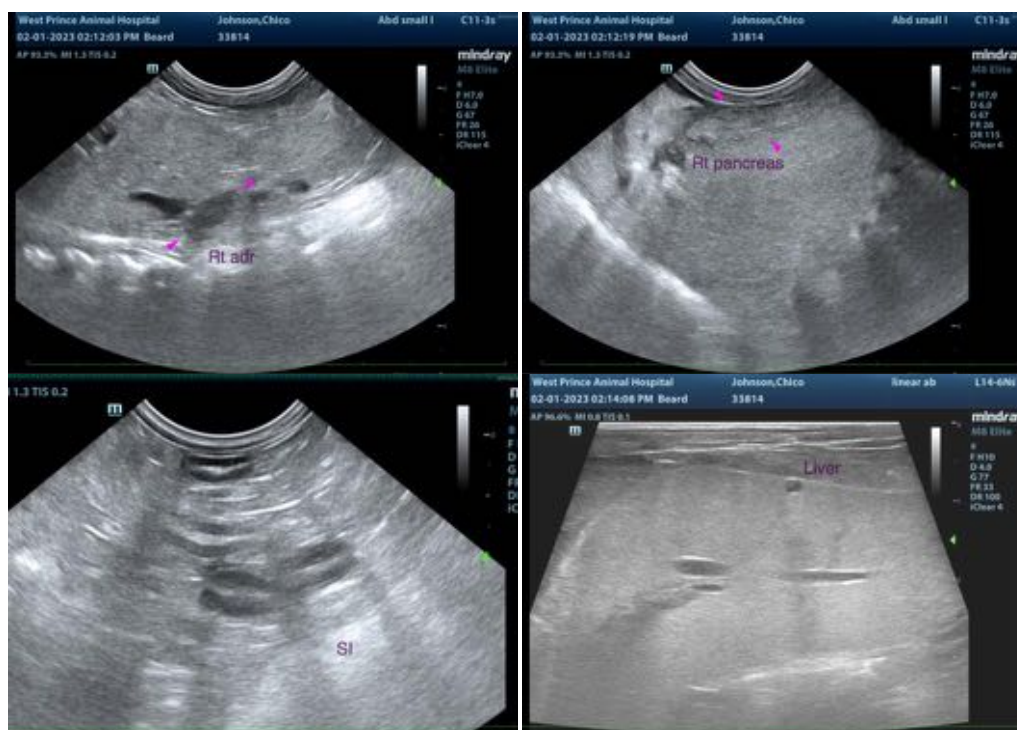
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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