



PATIENT PRESENTING CLINICAL SIGNS

Hoover Wittwer Increased SDMA increased BUN increased ALT ALP

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present.

SEX The region of the trigone and visible pelvic urethra were normal.

Neutered Male The **kidneys** presented a relatively uniform cortical hyperechogenicity when compared to the renal medulla, spleen and liver. No overt masses were noted. Corticomedullary definition was nebulous and the ratio favored the cortex slightly. The ureters were not visible and assumed to be normal. These changes are most consistent with chronic interstitial nephritis yet infiltrative disease could not be entirely ruled out without biopsy though neoplasia is not suspected. The right kidney measured 4.54 cm with pyelectasia noted. The left kidney measured 3.54 cm.

AGE

12

WEIGHT

15.6

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins were noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The right adrenal gland measured 2.44 cm x 1.28 cm at the caudal pole and 1.01 cm at the cranial pole. The left adrenal gland measured 2.2 cm x 0.97 cm at the caudal pole and 0.76 cm at the cranial pole. It was slightly irregular at the caudal pole. Capsular expansion present at the level of the phrenic vein. Early phrenic vein occupation may be an issue.

IMAGING PERFORMED BY

Jenn

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Maniar

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. Slight gallbladder calculi also noted. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

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Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.



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SPECIES

Canine

BREED

Min Pin

SEX

Neutered Male

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Pancreas

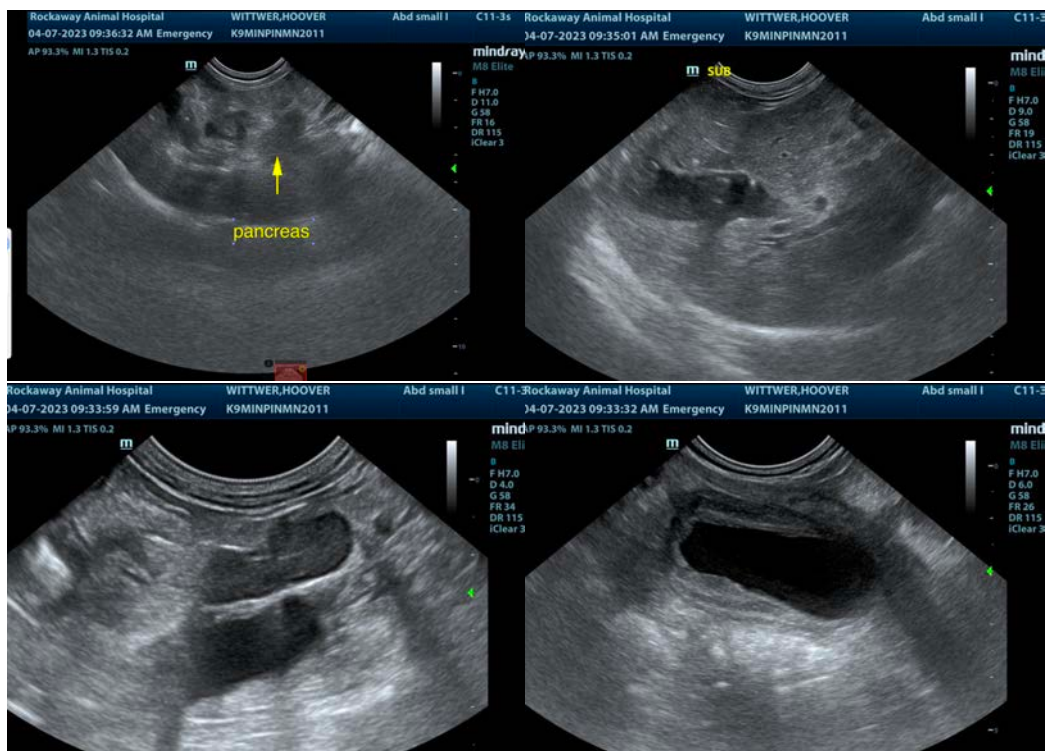
The **pancreas** was hypoechoic and irregular in the right limb. Potential low-grade inflammation. No evidence of masses.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenal hypertrophy with irregular left adrenal gland – possible emerging Cushing’s.
- Moderate degenerative renal changes with pyelectasia, interstitial nephrosis pattern
- Age related bladder changes
- Vacuolar hepatopathy liver pattern, age related
- Heterogeneous pancreas, potential concurrent pancreatitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

72 hour IV fluid protocol, urine culture and sensitivity, blood pressure measurements all recommended and reassessment of the clinical status.





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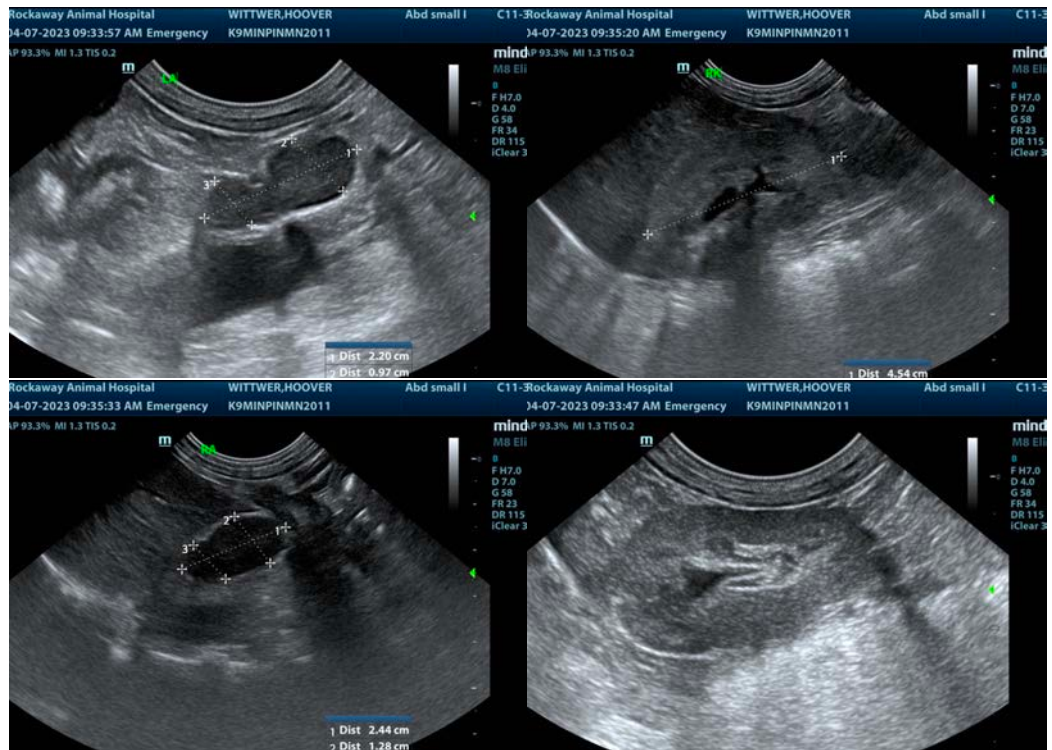
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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