



PATIENT

Cobe Ross

SPECIES

Canine

BREED

Pomeranian Mix

SEX

Neutered male

AGE

13 years

WEIGHT

48 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Maniar

INVOICE

46540

DATE

8/10/23

PRESENTING CLINICAL SIGNS

History: persistently elevated liver values, excessive panting, restlessness at home current meds: gabapentin, trazadone, hydrocodone
Abnormal PE/Chem/CBC/UA Results: alp 1280, all else wnl, LDDST pending

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

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

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 measure 6.3 cm. The left kidney measured 5.9 cm.

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins was 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 2.46 x 1.12 cm at the cranial pole and 0.73 cm at the caudal pole. The left adrenal gland measured 2.8 x 0.97 cm at the caudal pole and 0.81 cm at the cranial pole.

Spleen

The **spleen** was hypochoic, expansive, and irregular with a 1.9 cm nodule at the cranial pole. The splenic lymph node was enlarged and hypochoic measuring 2.9 x 1.5 cm with a smaller, 0.5 cm lymph node adjacent to the primary lymph node.

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. 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. Occasional, hypochoic nodule was noted. There was no overt suspicion of neoplasia.



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Gastrointestinal

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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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Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

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ULTRASONOGRAPHIC FINDINGS

Splenic nodule and adjacent splenic lymphadenopathy.

AGE

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Vacuolar hepatopathy with occasional hypoechoic nodule.

Bilateral adrenal hypertrophy.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Direct exploratory surgery with splenic removal along with lymph node removal could be considered. Ultrasound-guided FNA of the liver, spleen and splenic lymph node can be considered for screening purposes. There was no obvious metastatic disease to the liver, yet micrometastasis cannot be completely ruled out. Chest radiographs and echocardiogram are warranted. The prognosis is guarded. Differentials include round cell neoplasia versus hemangiosarcoma. Hyperplasia and lymphadenitis is possible, yet less likely.

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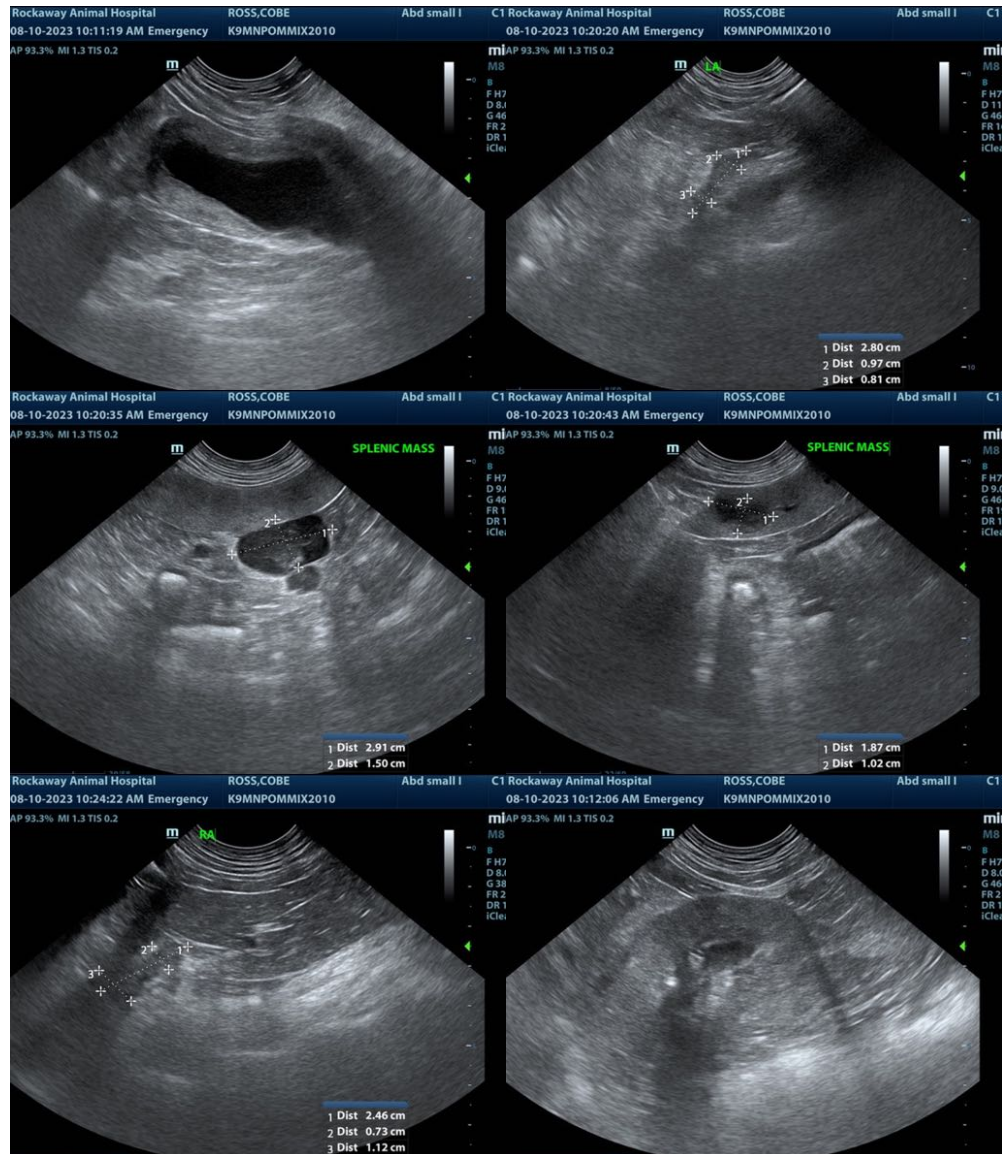
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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