



PATIENT

Wendy Damron

SPECIES

Canine

BREED

Cocker Spaniel

SEX

Spayed female

AGE

10 years

WEIGHT

31.3 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

Dr. Whitesell

INVOICE

40195

DATE

10/20/22

PRESENTING CLINICAL SIGNS

History: Elevated liver enzymes that did not respond to Denamarin, Clavamox and metronidazole. History of heart murmur managed by a cardiologist.

ALKP 1296 IU/L, BUN 36 IU/L. November of 2021 ALKP was 430 and BUN 39

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities.

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 left adrenal gland measured 0.83 cm at the cranial pole and 0.76 cm at the caudal pole. The right adrenal gland was slightly heterogenous measuring 1.53 cm at the cranial pole and 1.12 cm at the caudal pole and 2.5 cm in length.

Spleen

The visible **spleen** was normal; however it was small and minimal views were present.

Liver

Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. Occasional, hypoechoic, non-disruptive nodular changes were noted and measured up to 0.62 cm. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.



PATIENT

Wendy Damron

SPECIES

Canine

BREED

Cocker Spaniel

SEX

Spayed female

AGE

10 years

WEIGHT

31.3 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

Dr. Whitesell

INVOICE

40195

DATE

10/20/22

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.

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.

ULTRASONOGRAPHIC FINDINGS

Bilateral adrenal hypertrophy, subjectively benign metabolic hepatopathy with nodular hyperplasia pattern.

Minor excessive gallbladder debris.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If the urine specific gravity is less than 1.020 then work-up for Cushing's/PDH is indicated if the patient has physical attributes of endocrinopathy. FNA of the liver can be considered for further definition of the general parenchyma and nodules, yet it appears subjectively benign.





PATIENT

Wendy Damron

SPECIES

Canine

BREED

Cocker Spaniel

SEX

Spayed female

AGE

10 years

WEIGHT

31.3 lbs



INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Ashley Whitesell

HOSPITAL NAME

Dickson AC

REFERRING VET

Dr. Whitesell

INVOICE

40195

DATE

10/20/22

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com