



PATIENT

Pepper Garchinsky

PRESENTING CLINICAL SIGNS

History: Elevated liver values

ALP 370, ALT 215, Glucose 70, BUN 14, Albumin 3.3

SPECIES

Canine

Specific Gravity 1.035, negative protein and glucose, Fasting bile acids 4.4, Post prandial bile acids 70.4

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Dachshund

Urinary System

The urinary bladder was subnormal in size owing to a lack of urine distention. Sonographic assessment of the bladder was limited owing to lack of distention, yet without overt pathology. The urethra was normal in thickness and tone to a depth of 2.0 cm.

SEX

FS

The area of the aortic trifurcation was free of pathology.

AGE

12 years

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.4 cm in length. The right kidney measured 4.3 cm in length.

WEIGHT

10 Pounds

Adrenal Glands

A well-defined, hyperechoic nodule was present in the cranial left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 0.88 cm x 0.64 cm. The overall left adrenal gland measured 2.3 cm length x 0.91 cm width in the cranial pole and 0.47 cm width in the caudal pole.

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

The right adrenal gland was normal in size. Mild parenchyma heterogeneity and mild capsule asymmetry were present without suspicion for overt neoplasia. The right adrenal gland measured 2.2 cm length x 0.72 cm width in the cranial pole and 0.44 cm width in the caudal pole.

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling with minor potential for inflammatory or neoplastic disease.

HOSPITAL NAME

Simmonds VH

REFERRING VET

Dr. Cougar

Liver/ Gallbladder

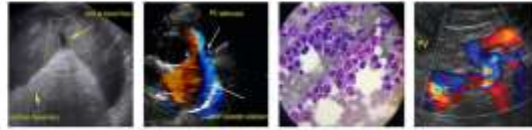
The liver was mild enlarged in size with normal structure and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. Moderate, nondependent, mildly congealed yet nonorganized gallbladder debris was present. No evidence of peripheral inflammation was noted. The common bile duct was normal.

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction, or foreign material.

SPECIES

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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

BREED

Dachshund

The descending colon was empty with intact yet prominent wall layering. The descending colon wall width measured 0.39 cm.

SEX

FS

Pancreas

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

AGE

12 years

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

WEIGHT

10 Pounds

Primary Findings

- Hepatopathy - subjectively benign
- Moderate gallbladder debris, potential for very early to emerging mucocele
- Cranial left adrenal nodule - suspect adenoma
- Possible colitis
- Mild chronic renal changes

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the liver was nonspecific but most consistent with benign hepatopathy. Considerations for the liver may include benign vacuolar hepatopathy in light of the elevated ALP or inflammatory hepatic disease in light of the elevated ALT. No overt evidence of hepatic neoplasia which is considered unlikely. Ultrasound guided FNA of the liver using a 25-gauge needle and assuming normal coagulation parameters would be warranted for screening cytology, primarily to assess for evidence of inflammatory cells and to rule out unlikely neoplasia. Hepatosupportive medications such as Denamarin or Vitamin E as well as Ursodiol due to its antioxidant and immunomodulatory effects within the liver would be warranted, although these medications may not result in decreased hepatic enzyme levels.

Potential for underlying endocrinopathy is considered unlikely, given the lack of reported clinical signs and urine specific gravity (> 1020). However adrenal testing may be considered if clinically indicated. A minor potential for emerging left adrenal neoplasia such as pheochromocytoma or adenocarcinoma. Screening blood pressure is suggested.

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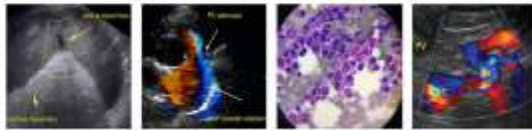
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Ideally, sonographic monitoring of the left adrenal gland for evidence of increasing nodule size with initial recheck in 4-6 weeks is suggested.



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



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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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