



PATIENT PRESENTING CLINICAL SIGNS

Angus Inge
History: Elevated liver values, thickened intestines
Medication: Cerenia, Pepcid, Denamarin, Carafate

SPECIES

Canine

BREED

Norfolk Terrier

SEX

Neutered Male

AGE

13 years

WEIGHT

20.8 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebekah Jakum, CVT
ARDMS/RVT

HOSPITAL NAME

Easton AH

REFERRING VET

Dr. Yaswinski

INVOICE

12982

DATE

1.6.2022

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.68 cm in diameter.

The area of the aortic trifurcation was free of pathology.

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. Minor pyelectasia was present in the left kidney. The left kidney measured 4.4 cm in length. The right kidney measured 4.2 cm in length.

Adrenal Glands

Bilateral symmetrical adrenal gland enlargement with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.77 cm width at the caudal pole and 0.54 cm width at the cranial pole. The right adrenal gland measured 0.74 cm width at the caudal pole and 0.82 cm width at the cranial pole.

Spleen

The spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multifocal, well-defined, symmetrical, echogenic nodules were present throughout the cranial to caudal parenchyma. 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. Acute to chronic inflammatory or neoplastic changes were not noted. The echogenic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

Liver/ Gallbladder

The liver exhibited moderate generalized enlargement. Diffuse increased parenchyma echogenicity with multiple, non-expansive, hypoechoic Intraparenchymal nodules were present. The gallbladder was non-distended in size with mild gallbladder debris. The cystic and common bile ducts were normal.



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Gastrointestinal

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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.

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The small intestine presented intact wall layering and primarily maintained a 1:3 muscularis/mucosa ratio with subjective propensity for potential mild prominent mucosa. No evidence of loss of intestinal wall layering or masses was noted. Intermittent, segmental mucosal speckling was present in the duodenum and jejunum. The jejunum wall width measured 0.43 cm. The duodenum wall width measured 0.45 cm.

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Normal visible colon wall layers were present with apparent formed feces in lumen.

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Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia. This is likely consistent with age-related pancreatic changes and considered incidental.

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Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Bilateral mild chronic renal changes with mild left kidney pyelectasia
- Prominent adrenal glands
- Hepatomegaly exhibiting generalized parenchyma hyperechogenicity and intermittent, non-expansive, hypoechoic nodules
- Mild gallbladder debris (non-mucocele)
- Nonspecific segmental small intestinal mucosal speckling

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Secondary Findings

- Benign splenic nodules - likely benign myelolipomas or possible emerging areas of mineralization

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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The pyelectasia in the left kidney may be owing to chronic renal changes, potential pelvic scarring possibly owing to previous calculi passage, IV fluid therapy (if applicable). Urine C/S and protein:creatinine ratio on sterile urine sample is recommended.

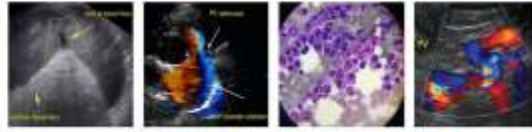
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The mucosal speckling noted in the small intestine is nonspecific and may be a patient variant or age-related intestinal mural changes, yet has been associated with enteritis or potential inflammatory enteropathy. Correlation with clinical signs is recommended.

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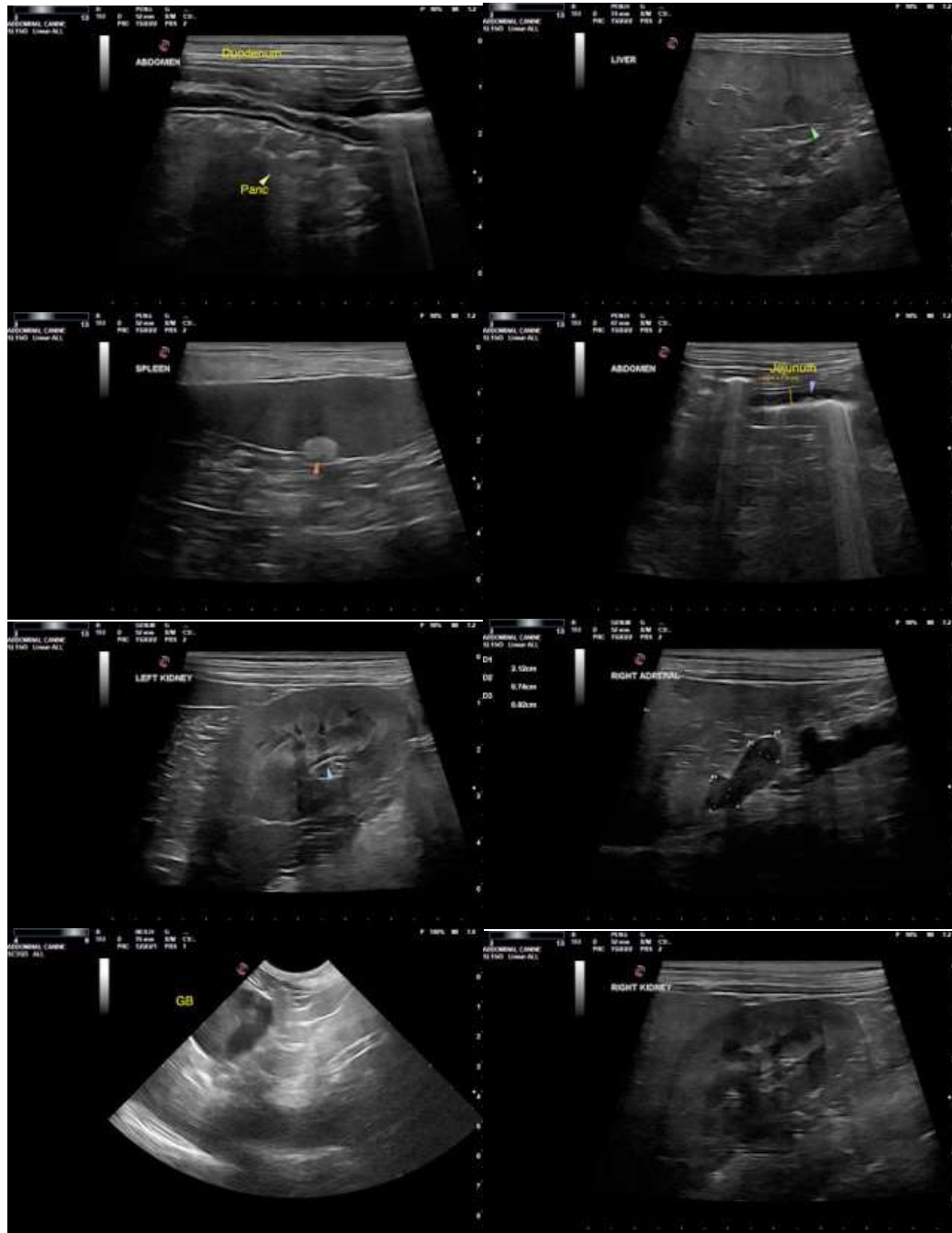
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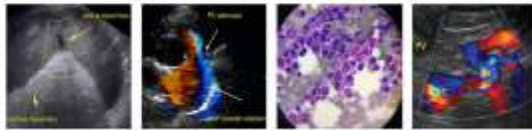
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The presentation of the liver may indicate vacuolar hepatitis, chronic active hepatitis, cholangiohepatitis, early fibrosis / cirrhosis or other hepatopathy with potential areas of nodular to regenerative hyperplasia or hematopoiesis. Neoplasia is considered a less likely differential diagnosis yet cannot be excluded. Further assessment may include hepatic FNA for screening cytology, assuming normal clotting status +/- LDDST If clinical signs suggestive of hyperadrenocorticism are present. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.





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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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mac.daniel@sonopath.com

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