



PATIENT PRESENTING CLINICAL SIGNS

Oscar Romano Patient with abnormal liver enzymes and abnormal pre-prandial bile acids. ALT 363 (10-125) ALP 289 (23-212) Current meds Hepato Support.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED

Havanese

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild dependent to non-dependent, hyperechoic yet non-shadowing sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

SEX

Neutered Male

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Subtle medullary mineralization present in both kidneys. The right kidney measured 3.3 cm. The left kidney measured 3.7 cm.

AGE

14 Years

The area of the aortic trifurcation was free of pathology.

Adrenal Glands

WEIGHT

5.6 kg

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.81 cm at the cranial pole and 0.58 cm at the caudal pole. The left adrenal gland measured 0.51 cm at the cranial pole and 0.63 cm at the caudal pole.

INTERPRETED BY

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

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present. A solitary, non-expansive, hypoechoic nodule was noted in the caudal spleen measuring 0.83 cm in diameter. 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.

IMAGING PERFORMED BY

Crystal Hill

Liver

HOSPITAL NAME

Simcoe AH

The liver was mildly enlarged. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. No overt evidence of a portosystemic vascular anomaly. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

REFERRING VET

Dr. Aliaga-Leyton

Gastrointestinal

INVOICE

25055

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.

DATE

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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.

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



PATIENT *Pancreas*

Oscar Romano 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 was evident.

SPECIES *Free Abdomen*

Canine No overt lymphadenopathy or peritoneal effusion was present.

BREED **ULTRASONOGRAPHIC FINDINGS**

- Havanese
- Non-specific yet non-expansive solitary splenic nodule
 - Hepatopathy – subjectively benign
- SEX**
- Mild bilateral chronic renal changes
- Neutered Male
- Mild hyperechoic yet non-shadowing urinary bladder sediment

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

AGE
14 Years 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.

WEIGHT
5.6 kg

INTERPRETED BY

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

The solitary splenic nodule may indicate a benign process such as nodular lymphoid hyperplasia or focal hematopoiesis, with unlikely potential for emerging splenic neoplasia possible. Given the non-expansive nature of the nodule at this time, continued sonographic monitoring for evidence of progression or additional nodular changes would be reasonable.

IMAGING PERFORMED BY

Crystal Hill

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of - cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Echogenic to particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

HOSPITAL NAME

Simcoe AH

The abnormal post-prandial bile acids may be spurious or owing to gallbladder contraction. Recheck bile acids may be considered, although hepatic functionality is likely normal assuming normal albumin, glucose, cholesterol and BUN levels.

REFERRING VET

Dr. Aliaga-Leyton

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PATIENT

Oscar Romano

SPECIES

Canine

BREED

Havanese

SEX

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REFERRING VET

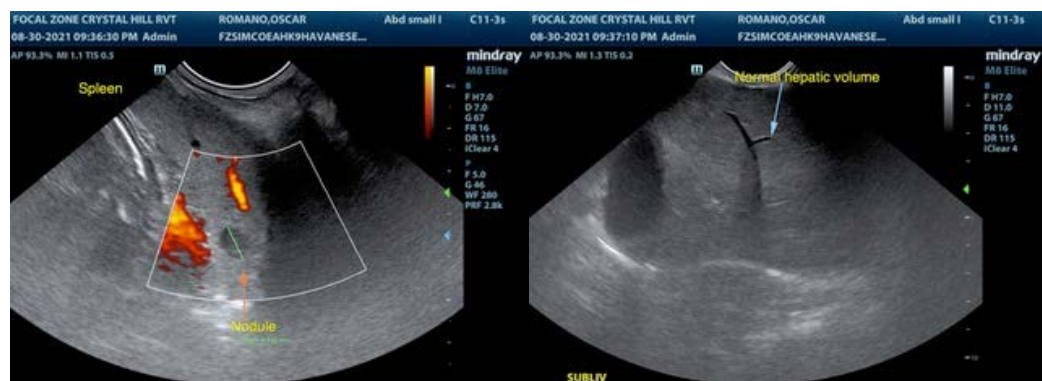
Dr. Aliaga-Leyton

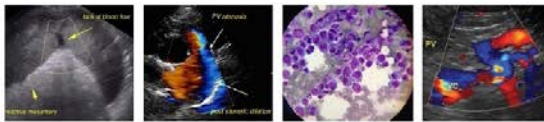
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PATIENT

Oscar Romano

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.

SPECIES

Canine

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.

BREED

Havanese

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com

SEX

Neutered Male

AGE

14 Years

WEIGHT

5.6 kg

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