



**PATIENT PRESENTING CLINICAL SIGNS**

Max Uhler Elevated liver values. Radiographs show spondylosis, enlarged liver and spleen.  
 Medication: (possibly) Vetmedin

**SPECIES**

Canine ALT 336, ALP 223, GGT 29, TBIL 0.8, BUN 17, Creatinine 1.3

**BREED**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

German Shepherd The urinary bladder was subnormal in size which prohibited full evaluation of the urinary bladder wall. There was no overt urinary bladder mural pathology noted. The urethra exhibited normal structure and tone to a depth of 5.0 cm.

**SEX**

MN The residual prostate was normal in size with mild nonhomogeneous parenchyma which is likely a residual prostate patient variant. There was no evidence of residual prostate pathology.

**AGE**

2016 The area of the aortic trifurcation was free of pathology.  
 Adequate size and mild asymmetrical contour were present in the kidneys. A 1:3 cortex / medulla ratio and indistinct corticomedullary border demarcation was present. No evidence of pyelectasia was noted in either kidney. The left kidney measured 7.2 cm in length. The right kidney measured 7.6 cm in length.

**WEIGHT**

89

**Adrenal Glands**

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline) The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.5 cm length x 0.57 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.51 cm width at the caudal pole.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT ARDMS/RVT

**Spleen**

The spleen exhibited subjective mild enlargement with symmetrical yet mildly rounded contour and generalized mild splenic parenchyma heterogeneity. No masses or nodules were noted. Normal splenic vascularity was noted.

**HOSPITAL NAME**

Maple Hills VH

**Liver/ Gallbladder**

**REFERRING VET**

Banzhof

The liver presented enlarged in size. 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. The gallbladder was non-distended in size containing primarily anechoic content with mild, hyperechoic, nonorganized gallbladder debris. No evidence of inflammatory criteria was noted. The cystic and common bile ducts were normal.

**INVOICE**

14755

**Gastrointestinal**

**DATE**

8/1/23

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.



**PATIENT**

Max Uhler

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.

**SPECIES**

**Pancreas**

Canine

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.

**BREED**

German Shepherd

**Free Abdomen**

No overt lymphadenopathy or peritoneal effusion was present.

**SEX**

MN

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

2016

- Subjective mild bilateral renal dysplasia
- Subnormal urinary bladder
- Mildly enlarged heterogeneous spleen
- Hepatopathy, mild gallbladder debris (non mucocele)

**WEIGHT**

89

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The overall liver was nonspecific yet sonographically suggestive of benign hepatopathy. Considerations may include vacuolar hepatopathy, inflammatory / immune-mediated disease, nonobstructive cholestasis, hyperplasia, hematopoiesis, or other hepatopathy with infiltrative neoplasia considered less likely. Suspect nonspecific inflammatory hepatopathy given the primarily elevated ALT in conjunction with mild gallbladder sediment.

The spleen, likewise, was suggestive of benign criteria with breed-associated hypersplenism, incidental hematopoiesis, hyperplasia, or splenitis likely. Assuming normal clotting status, screening hepatosplenic FNA cytology using a 25-gauge needle is warranted for further clarification. A hepatic core surgical biopsy is likely required for a definitive diagnosis. Hepatosupportive medications including Denamarin and Ursodiol may prove beneficial.

**INTERPRETED BY**

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

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ARDMS/RVT

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**REFERRING VET**

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**PATIENT**

Max Uhler

**SPECIES**

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**SEX**

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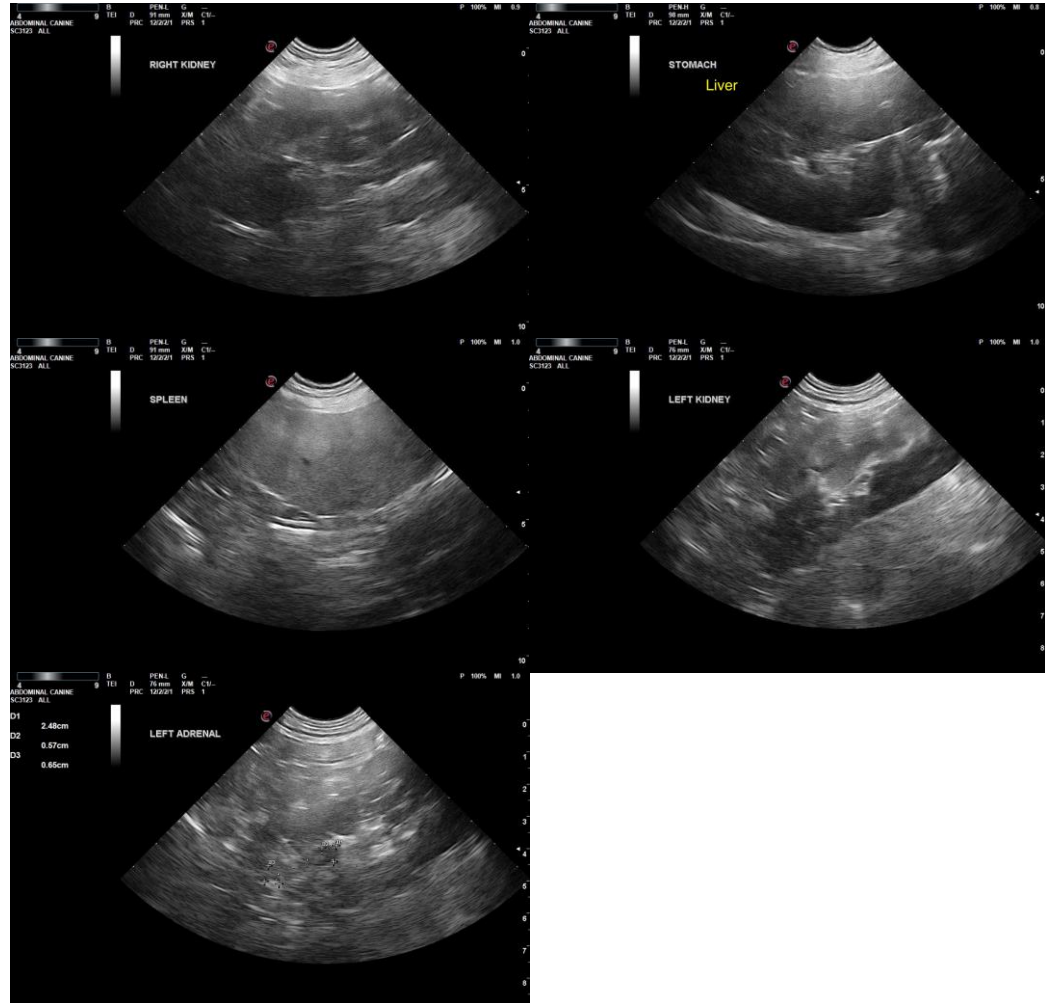
Banzhof

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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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