



**PATIENT PRESENTING CLINICAL SIGNS**

Buster Decker

History: Cushing's, new diabetic, pancreatitis, DKA

**SPECIES**

Canine

Medication: Metronidazole, Pepcid, Cerenia, Trilostane, Entyce, Humulin N

ALP (>2000), ALT 165, Glucose 600, WBC 27K, CPL positive, Mild BUN and Creatinine elevation

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Dachshund

**Urinary System**

The urinary bladder was moderately distended in size without evidence of neoplastic or Inflammatory mural criteria. Anechoic urine was present with no sediment or calculi noted. The urethra was normal in structure and tone to a depth of 2.0 cm.

**SEX**

Neutered Male

The residual prostate was sonographically unremarkable, measuring 0.9 cm in diameter.

The area of the aortic trifurcation was free of pathology.

**AGE**

11 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. Small cortical cysts were present in both kidneys. No evidence of pyelectasia was noted in either kidney. The left kidney measured 5.8 cm in length. The right kidney measured 5.6 cm in length.

**WEIGHT**

26.5 Pounds

**Adrenal Glands**

**INTERPRETED BY**

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

The bilateral adrenal glands exhibited enlarged size with asymmetrical contour. Nonhomogeneous to regionally hyperechoic parenchyma with suspect parenchymal mineralization was present. Parenchymal expansion associated with the proximal left phrenicoabdominal vein is suspected. The left adrenal gland overall measured 4.3 cm length x 1.59 cm width at the caudal pole and 1.66 cm width at the cranial pole. The right adrenal gland measured 5.3 cm length x 3.0 cm width. Overt evidence of vascular invasion associated with the right adrenal gland was not definitively evident, yet cannot be definitively excluded.

**IMAGING PERFORMED BY**

Rebekah Jakum, CVT  
ARDMS/RVT

**Spleen**

**HOSPITAL NAME**

Stanglein

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. The spleen was mildly subnormal in size potentially owing to volume contraction.

**REFERRING VET**

Dr. Green

**INVOICE**

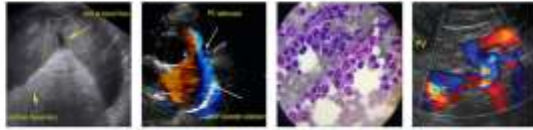
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**Liver/ Gallbladder**

The liver presented increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. Moderate,

**DATE**

10.27.2021



**PATIENT**

nondependent, yet nonorganized, subjectively mobile gallbladder debris was present. No overt evidence of peripheral gallbladder inflammation was noted.

Buster Decker

***Gastrointestinal***

**SPECIES**

The stomach exhibited moderate to marked distention with retained anechoic to echogenic fluid. No evidence of mechanical pyloric outflow obstruction was noted. The stomach walls were sonographically unremarkable. The ventral gastric body wall width measured 0.27 cm.

Canine

**BREED**

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.

Dachshund

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

**SEX**

***Pancreas***

Neutered Male

The parenchyma of the pancreas was hyperechoic to adjacent omental fat with diffuse parenchyma remodeling. The capsule of the pancreas was mildly asymmetrical in contour without evidence of peripancreatic inflammation. These changes may suggest chronic inflammation, fibrosis, or saponification if previous history of pancreatitis. No overt signs of pancreatic neoplasia.

**AGE**

11 years

***Free Abdomen***

**WEIGHT**

No overt lymphadenopathy or peritoneal effusion was present.

26.5 Pounds

**ULTRASONOGRAPHIC FINDINGS**

***Primary Findings***

**INTERPRETED BY**

- Distended urinary bladder, sonographically unremarkable residual prostate and visible proximal urethra
- Mild chronic renal changes with small cortical cysts, no overt pyelonephritis
- Bilateral adrenomegaly with nonhomogeneous to suspect mineralized parenchyma and possible vascular involvement of the left phrenicoabdominal vein
- Hepatomegaly with uniform echogenic parenchyma - consistent with steroid / metabolic / reactive (diabetic) hepatopathy, (Subjectively benign)
- Moderate gallbladder debris (non-mucocele)
- Chronic pancreatitis, possible pancreatic fibrosis
- Severe gastric hypomotility - likely metabolic gastric stasis

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

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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Both adrenal glands are abnormal in this patient with a strong concern for potential bilateral adrenal tumors, although potential severe chronic hyperplasia with non-neoplastic mineralization is possible. Strong concern for early left proximal phrenicoabdominal vein invasion owing to potential neoplasia.

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CT assessment could be considered for further clarification. Hospitalization with stabilization of blood glucose levels with potential insulin CRI, urine culture and sensitivity, and as-needed supportive care is recommended. Systemic blood pressure is suggested.

**SPECIES**

Canine

For an additional charge, internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

**BREED**

Dachshund

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>

**SEX**

Neutered Male

**AGE**

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**WEIGHT**

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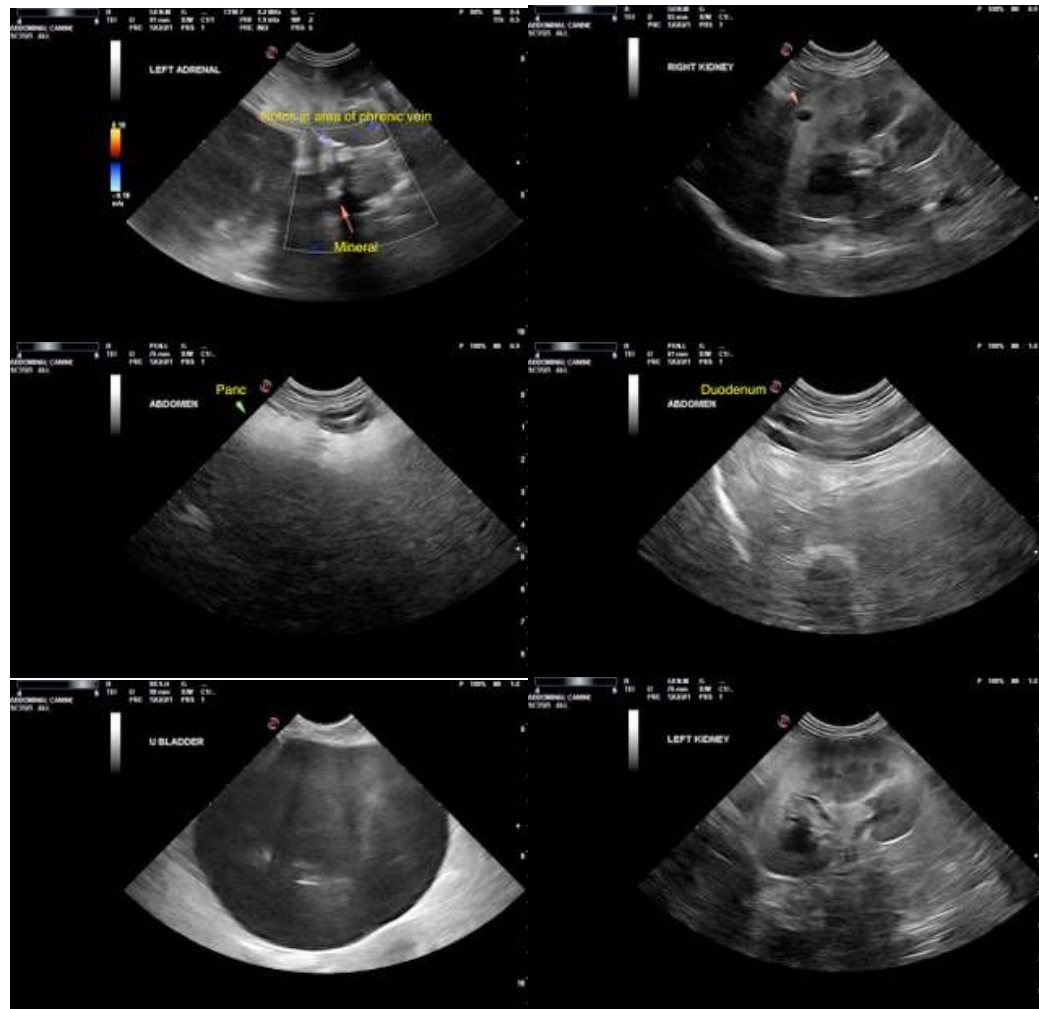
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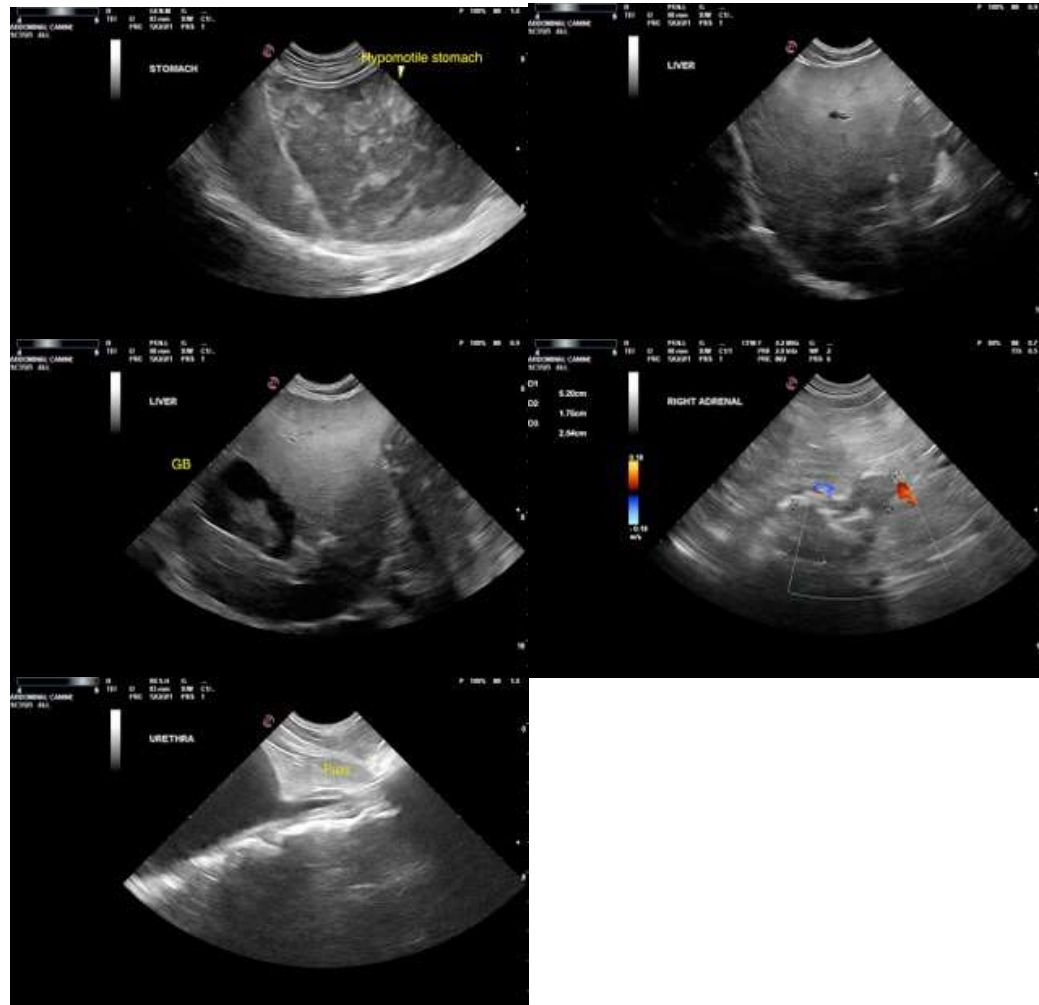
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)**  
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