



**PATIENT**

**PRESENTING CLINICAL SIGNS**

Frankie Old Dog Haven

History: NAF  
Abnormal PE/Chem/CBC/UA Results: Elevated ALT

**SPECIES**

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine

**Urinary System**

**BREED**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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 were noted. Aortic trifurcation was normal.

Dachshund

**SEX**

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 5.2 cm in length. The right kidney measured 5.3 cm in length.

Spayed Female

**AGE**

**Adrenal Glands**

18 Years

Both adrenal glands were enlarged in size with primarily maintained symmetrical capsule contour. Nonhomogeneous parenchyma noted, exhibiting pinpoint hyperechoic foci. The right adrenal gland measured 2.0 cm in length x 1.0 cm at the caudal pole in width. The left adrenal gland measured 1.9 cm in length x 0.85 cm at the caudal pole in width.

**WEIGHT**

12.5 Pounds

**Spleen**

**INTERPRETED BY**

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.

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

**IMAGING PERFORMED BY**

Dr. Jacquie Preston

**Liver**

**HOSPITAL NAME**

The liver was enlarged with maintained symmetrical to mildly swollen hepatic capsule contour. Nonuniform parenchyma present, exhibiting moderate coarse echotexture and evidence of parenchymal remodeling. Focal areas of minor biliary tree mineralization were present.

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Inc.

**REFERRING VET**

The gallbladder was non distended in size with echogenic, nonmineralized, non-dependent biliary sludge. The biliary sludge was non organized with a hypoechoic to anechoic, irregular to interrupted rim visible between the nondependent sludge and inner wall. No evidence of peripheral gallbladder inflammation or effusion. The gallbladder sludge exhibited areas of mineralization. No signs of peripheral inflammation.

Dr. Pam Wiltzius

**INVOICE**

**Gastrointestinal**

15041

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild focally shadowing ingesta/chyme without signs of obstruction or foreign material.

**DATE**

5/4/22



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The small intestine presented intact wall layering and primarily maintained 1:3 muscularis/mucosa ratio. Prominent duodenum walls noted, exhibited mild duodenal mucosal hyperechoic striations. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

**SPECIES**

Canine

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

**BREED**

Dachshund

**Pancreas**

The pancreas base and right pancreatic limb exhibited prominent size with areas of capsule asymmetry. Primarily hyperechoic parenchyma with focal areas of intermixed hyperechoic parenchyma and pancreatic parenchymal remodeling. Subtle evidence of minor peripancreatic reactive mesentery.

**SEX**

Spayed Female

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

18 Years

- Age-related kidneys
- Bilateral adrenomegaly
- Hepatopathy, exhibiting mild nonuniform parenchyma with minor areas of biliary tree mineralization

**WEIGHT**

12.5 Pounds

- Immature gallbladder mucocele with mineralized nondependent sludge
- Primarily chronic to focal chronic active pancreatitis pattern with parenchymal remodeling
- mild gastric ingesta with potential mild duodenitis

**INTERPRETED BY**

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

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Full adrenal work up, including LDDST warranted if clinical signs consistent with adrenal hyperfunctionality (i.e., PU/PD, polyphagia, etc.) are present. The overall appearance of liver was nonspecific yet not overtly consistent with neoplastic criteria. Potential for chronic inflammatory hepatopathy possible ALT elevation. Ultrasound guided hepatic FNA, using a 25-gauge needle and assuming normal clotting status could be considered for screening cytology. Hepatosupportive medications, including ursodiol suggested with serial monitoring for evidence of increasing cholestasis given the presence of the immature gallbladder mucocele. Recheck sonogram recommended if these clinical signs are noted for gallbladder reassessment.

**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

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**Cholecystitis/Emerging Mucocele protocol.**

**REFERRING VET**

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**Enrofloxacin** 5 mg/kg SID PO & **Metronidazole** (10-20 mg/kg po bid) over 3 weeks, **Ursodiol** (10-15 mg/kg p.o. q24h) over 8 weeks and recheck sonogram. Monitor rapid rise in ALT, SAP, Bilirubin, bilirubinuria, leukocytosis, focal cranial abdominal subxyphoid discomfort or progressive anorexia. More information regarding clinical emerging mucocele issues may be found with our article and research at <http://sonopath.com/resources/articles>, **Defining a GB Mucocele** and **Clinical Parameters in Dogs with Sonographically Diagnosed Surgical Biliary Disease** from ECVIM 2009.

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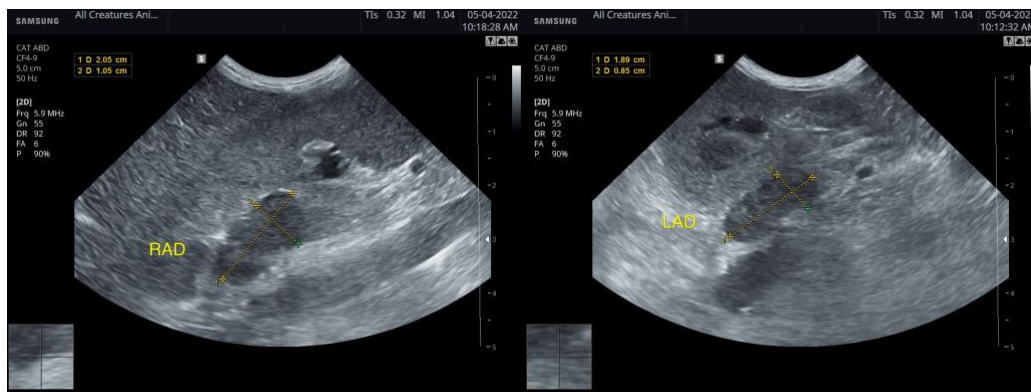
Frankie Old Dog Haven

**SPECIES**

Canine

**BREED**

Dachshund



**SEX**

Spayed Female

**AGE**

18 Years

**WEIGHT**

12.5 Pounds



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**HOSPITAL NAME**



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**BREED**

Dachshund

**SEX**

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**WEIGHT**

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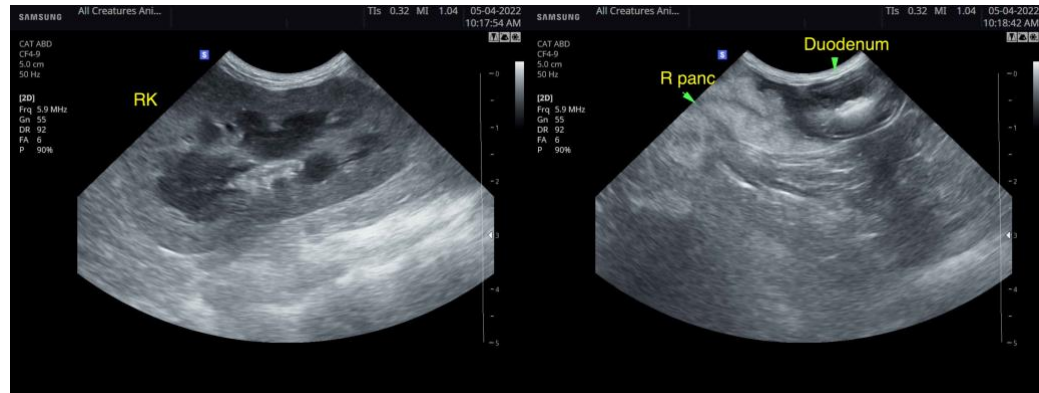
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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