



**PATIENT PRESENTING CLINICAL SIGNS**

Dakota Hadler Diffuse peritoneal effusion/peritonitis. The underlying cause is unclear. Abdominal ultrasound and fluid sampling is recommended for further evaluation in this case. Fluid sample taken was straw to red in colour

**SPECIES**

Feline

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

**BREED**

DSH

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 non-dependent particulate sediment was present, which may indicate mild cellular debris/protein, crystalline debris, lipid, or mucus. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

**SEX**

Spayed Female

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. The left kidney measured 4.3 cm. The right kidney measured 4.2 cm.

**AGE**

10 Years

**Adrenal Glands**

Both adrenal glands were overtly normal in size, position, and shape, without pathology. The right adrenal gland subjectively measured 0.30 cm. The left adrenal gland subjectively measured 0.36 cm.

**WEIGHT**

9 Pounds

**Spleen**

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Normal size (0.75 cm in width at the level of the hilus) with minor medial capsule asymmetry. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. No masses or nodules noted. No overt evidence of splenic neoplastic criteria. 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.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Kelly Reschny

**Liver**

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. No evidence of hepatic congestion. Normal vascular volume. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

**HOSPITAL NAME**

Burlington Lakeshore  
Veterinary Hospital

**Gastrointestinal**

**REFERRING VET**

Dr. Aziz

The stomach presented intact wall layering with a normal wall layer ratio. Mild retained anechoic fluid noted in the stomach. Mild echogenic yet non-shadowing chyme and luminal gas present.

**INVOICE**

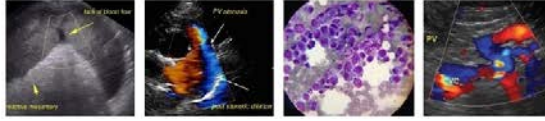
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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

**DATE**

12/5/22

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



**PATIENT** *Pancreas*

Dakota Hadler

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**

Feline

**Free Abdomen**

Moderate volume peritoneal effusion noted, exhibiting mild echogenic changes. Generalized non-uniform to discretely nodular omentum noted. Possible ill-defined, hypoechoic omental lesion in the mid abdomen, potentially measuring 4.0-5.0 cm in diameter.

**BREED**

DSH

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Spayed Female

- Moderate volume peritoneal effusion exhibiting mild echogenic changes
- Generalized non-uniform to discretely nodular omentum, possible ill-defined mid abdominal hypoechoic lesion – left pancreatic limb lesion, lymphadenopathy, unspecified omental lesion all possible.

**AGE**

10 Years

- Mild chronic renal changes
- Sonographically unremarkable liver exhibiting normal volume

**WEIGHT**

9 Pounds

- Mild urinary bladder sediment

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given no subnormal albumin levels that would diminish oncotic pressure to the point of causing free fluid, as well as no evidence of significant hepatopathy, hepatic congestion, or gastrointestinal mural pathology, a definitive cause of the effusion was not obvious. However, primary concern for lymphatic obstruction secondary to a neoplastic process i.e., carcinomatosis, lymphomatosis, or similar is warranted.

Abdominocentesis, effusion cytology, +/- culture and sensitivity (if evidence of inflammatory cells) is recommended. FIP is technically a potential yet considered less likely, given the patient age. FIP testing could be considered if clinically indicated. Carcinomatosis, lymphomatosis are the primary differentials with less likely potential for significant pancreatitis or other pancreatic pathology as a contributing factor.

The free fluid has mild echogenic changes to it. Given that no subnormal albumin that would diminish oncotic pressures to the point of causing free fluid as well as no evidence of passive congestion with hepatic vasculature or vena cava and no significant, diffuse hepatic disease is noted as well as no evidence of intestinal perforation or other pathology that would be responsible for effusion of this nature, lymphatic obstruction owing to carcinomatosis and lymphomatosis or similar is my primary concern.

**INTERPRETED BY**

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Dakota Hadler

**SPECIES**

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**AGE**

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**WEIGHT**

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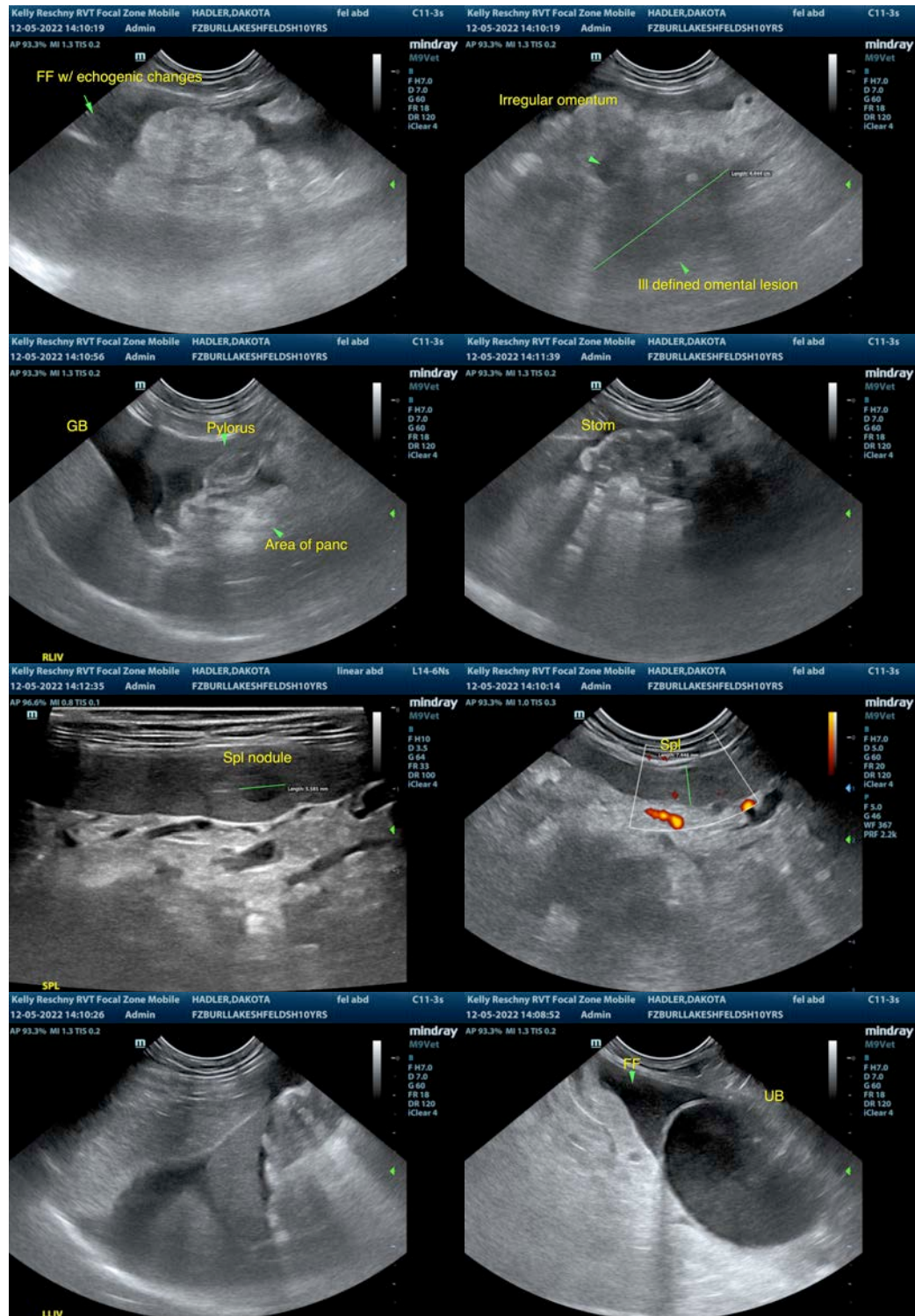
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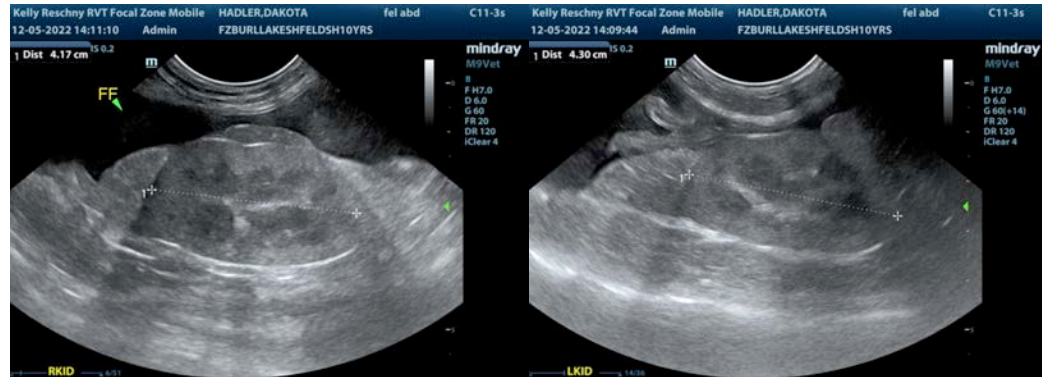
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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