



**PATIENT**

Lou Vanrell

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

10 Years

**WEIGHT**

10.6 Pounds

**INTERPRETED BY**

Tam Mengine, DVM,  
DABVP (canine/feline  
practice)

**IMAGING  
PERFORMED BY**

Kelly Vazquez

**HOSPITAL NAME**

The Venturing Vet

**REFERRING VET**

Dr. Marisa Herzog

**INVOICE**

17310

**DATE**

9/16/22

**PRESENTING CLINICAL SIGNS**

History: Patient with recent history of diabetes diagnosis presents for insulin resistance, confirmed, but small dermal mast cell tumor (5/28/22), PU/PD, and ravenous appetite. No weight gain or loss reported.

Abnormal PE/Chem/CBC/UA Results: BUN 41, BUN/Creat. ratio 37, glucose 389, CPK 43, platelet count 133, eosinophils 1428. (7/2/22) Fructosamine 660, glucose 456, (8/3/22) Fructosamine 592, glucose 401, (9/2/22) Fructosamine 533, glucose 316. U/A: 3+ glucose.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is moderately distended with anechoic urine, and no luminal sediment is present. The ureteral papillae, trigone and pelvic urethra are of normal appearance, and the ureters are not visible (normal). No masses, calculi or mucosal irregularities are noted. Urethra visualized to 2.0 cm.

The kidneys are of normal size and shape and exhibit appropriate corticomedullary differentiation with a normal 1:3 cortex to medulla ratio. There is no evidence of nephrolithiasis, mineralization, pyelectasia, cystic change or hydronephrosis. The proximal ureter is not visible (normal). The left kidney is 3.6 cm in length. The right kidney is 4.2 cm in length.

**Adrenal Glands**

The adrenal glands are both identified in their normal locations. They are normal in size and shape with appropriate parenchymal echogenicity and normal phrenic vasculature. The left adrenal gland height is 4.2 mm at the cranial pole and 4.2 mm at the caudal pole. The right adrenal gland height is 4.5 mm at the cranial pole and 4.5 mm at the caudal pole.

**Spleen**

The spleen is of appropriate size and has a normal, homogenous parenchyma with a smooth, continuous capsular surface. The splenic vasculature is normal with no evidence of congestion or thrombosis, and blood flow through the splenic hilus appears normal. Thickness at the splenic hilus is normal at 9.2 mm.

**Liver**

The liver is of appropriate size and shape, with sharp borders and a mildly coarse parenchymal echotexture that is hypoechoic to the spleen. The portal and hepatic vasculature are of normal size and appearance with no evidence of congestion or thrombosis.

The gallbladder is moderately distended with anechoic contents and a small amount of echogenic sludge. The wall was thin and continuous with no focal lesions. The cystic duct is tortuous, which is a normal variant in a cat, and the common bile duct is normal.

**Gastrointestinal**

The stomach is empty. The gastric wall is 2.6 mm with normal deviations due to rugal folds, and exhibits appropriate wall layering. The pylorus is of normal appearance.

The visualized portions of the duodenum, jejunum, and ileum are of normal thickness with intact wall layering that exhibits the appropriate 1:3 muscularis to mucosa ratio. The duodenal wall measures 2.7 mm. The jejunal wall measures up to 2.3 mm. Intestinal motility appears normal.



**PATIENT**

The visible portions of the colon are of normal thickness, up to 1.2 mm, with intact wall layering. The ileocecal junction is visualized and appears normal.

Lou Vanrell

**Pancreas**

**SPECIES**

The left limb of the pancreas is hypoechoic, but of normal size and with no changes to the surrounding mesenteric fat. There is no evidence of peripancreatic inflammation. The pancreatic duct appears normal.

Feline

**BREED**

**Free Abdomen**

DSH

There is no evidence of free fluid within the peritoneal cavity. The omentum and intra-abdominal fat are of appropriate echogenicity. Enlarged abdominal lymph nodes are not observed. The aortic trifurcation has normal blood flow with no evidence of thrombosis.

**SEX**

**ULTRASONOGRAPHIC FINDINGS**

Spayed Female

**Primary Findings**

**AGE**

- Unremarkable feline abdomen

10 Years

**Secondary Findings**

- Hypoechoic pancreas, which may indicate prior episodes of pancreatitis, but which can also be a normal variant in a cat.

**WEIGHT**

10.6 Pounds

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

There are no changes on today's ultrasound to explain the difficulty in regulating this patient. If the patient is receiving >1.5 units per kg of insulin twice daily, then insulin resistance is likely. Additional diagnostics might include:

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- A low dose dexamethasone suppression test to screen for Cushing's disease
- A serum IGF-1 concentration, to screen for acromegaly. This test is offered by Michigan State University, and would include an endocrinologist interpretation.
- A spec FPL or PLI level to screen for chronic pancreatitis.

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Additionally, if not already addressed, a discussion with the client regarding insulin handling, rotation of insulin injection site, administration technique, and evaluation of patients diet would be recommended, as other possible causes for lack of insulin effectiveness.

**REFERRING VET**

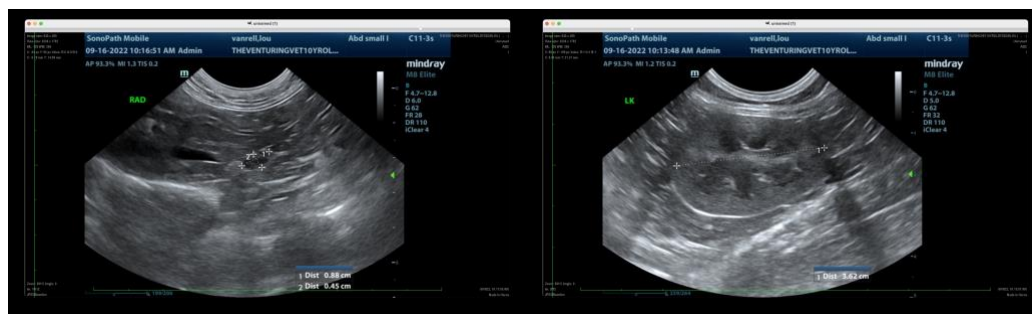
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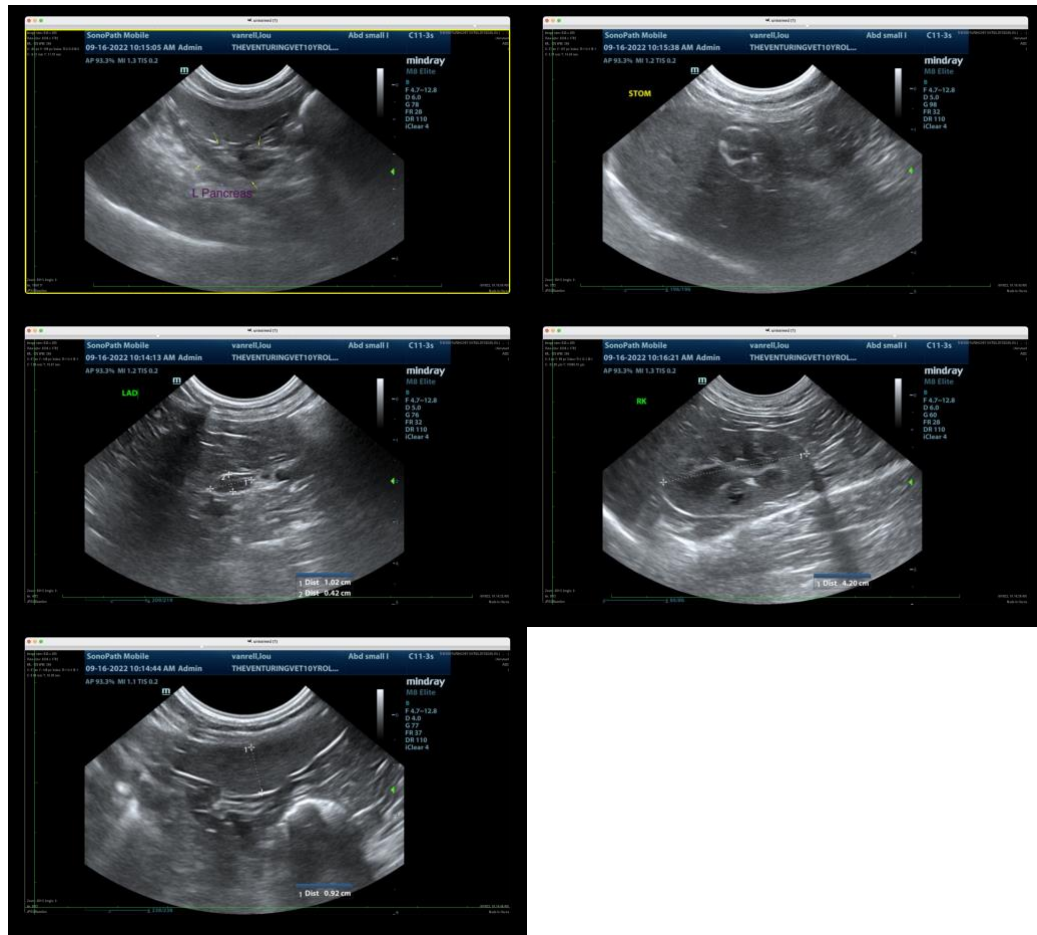
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**The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Tam Mengine, DVM, DABVP (canine/feline practice) info@SonoPath.com**