



**PATIENT**

Francis Smith

**SPECIES**

Canine

**BREED**

Toy Poodle

**SEX**

Spayed Female

**AGE**

11 Years

**WEIGHT**

5.3 kg

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Callihan/AEC

**HOSPITAL NAME**

Animal Emergency  
Care

**REFERRING VET**

Dr. Callihan/AEC

**INVOICE**

12844

**DATE**

8/28/21

**PRESENTING CLINICAL SIGNS**

History: Transferred from primary care vet yesterday to ER for management of newly diabetic, nonketotic. Presented to primary care for PU/PD, though pt has history of vomiting and diarrhea last week and has had pancreatitis in the past.

Abnormal PE/Chem/CBC/UA Results: CBC normal (slight thrombocytopenia automated); Chems with glucose 622 mg/dL (ref 75-125); normal lytes; ALKP 878, chol slight elev; ALT sl elev 133 (ref 0-120). UA with quiet sed, no bacteria, USG 1.042 but 2000+glucosuria; Surprisingly BAR on PE, happy to eat; started Humulin N last night at 0.2 U/kg but little response, boosted with regular insulin IM early morning and started coming down, have increased the Humulin N to 0.5 U/kg;

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. The bladder was empty. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

The **kidneys** were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. This is consistent with minor diabetic nephropathy. This is likely from glucosuria. However, assessment for proteinuria is also warranted. This is an idiopathic finding, but an expected finding in diabetic patients. The right kidney measured 4.37 cm. Slight mineralization was noted in both kidneys. The left kidney measured 4.42 cm. Microcystic changes were noted in the renal cortices as well.

**Adrenal Glands**

The **right adrenal gland** was visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.57 cm at the caudal pole and 0.47 cm at the cranial pole.

The **left adrenal gland** was slightly swollen at the caudal pole. The left adrenal gland measured 0.81 cm at the caudal pole and 0.44 cm at the cranial pole.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**Liver**

The **liver** revealed slight coarse in architecture with minor increased portal markings. Minor gallbladder debris was noted. A cystic mass was noted in the right cranial liver, may represent abscessation.

**Gastrointestinal**



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The **stomach** was thickened in this patient and filled with ingesta. No loss of mural detail. Hyperperistalsis was present. Some shadowing gastric material was noted yet the pylorus was patent. The small intestine and colon were unremarkable.

## SPECIES

Canine

## Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

## BREED

Toy Poodle

## ULTRASONOGRAPHIC FINDINGS

## SEX

Spayed Female

- Diabetic nephropathy with mineralization
- Undefined cystic mass in the right cranial liver, abscessation, complex cyst, carcinoma all possible
- Gastritis
- Irregular left adrenal gland, possible emerging Cushing's/PDH likely as the left adrenal was uniformly enlarged

## AGE

11 Years

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

After coagulation panel, Ultrasound guided FNA, cytology and culture indicated.

## WEIGHT

5.3 kg

Potential Causes of Diabetic Dysregulation

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

## INTERPRETED BY

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- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)
- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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## REFERRING VET

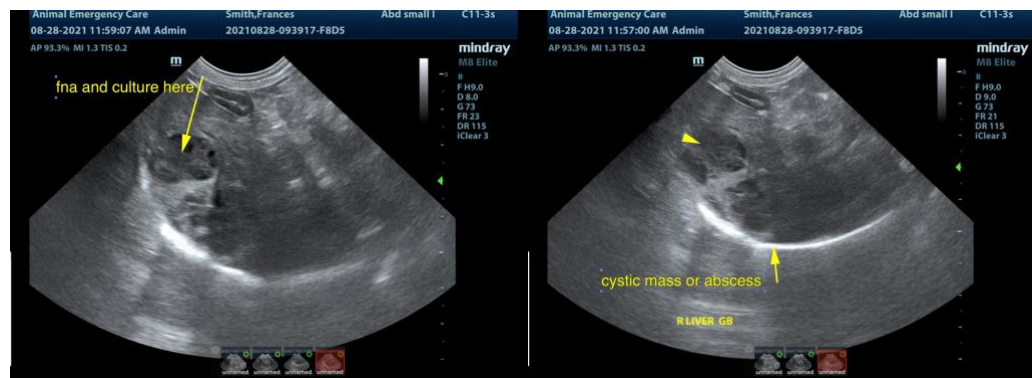
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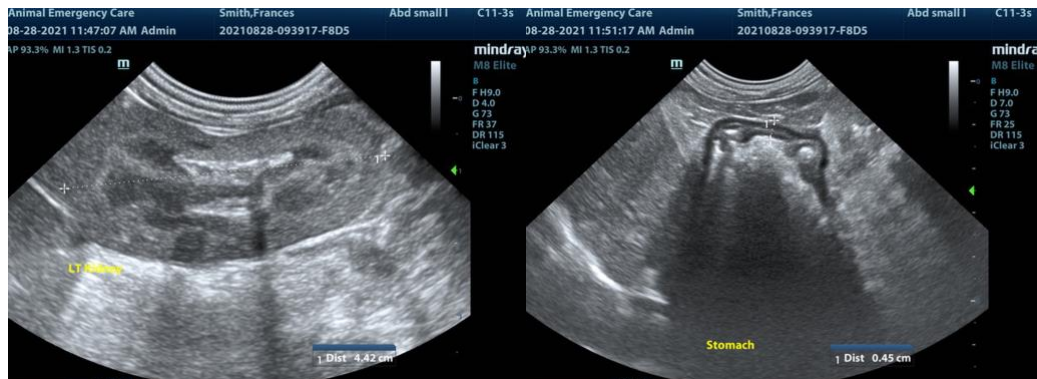
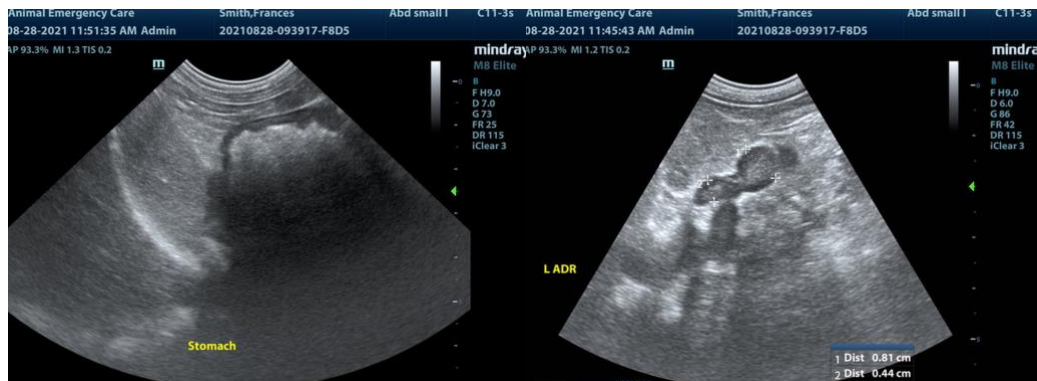
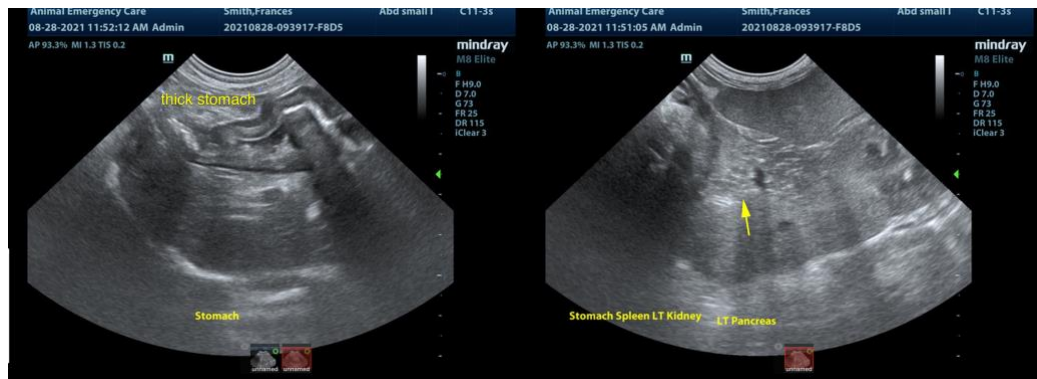
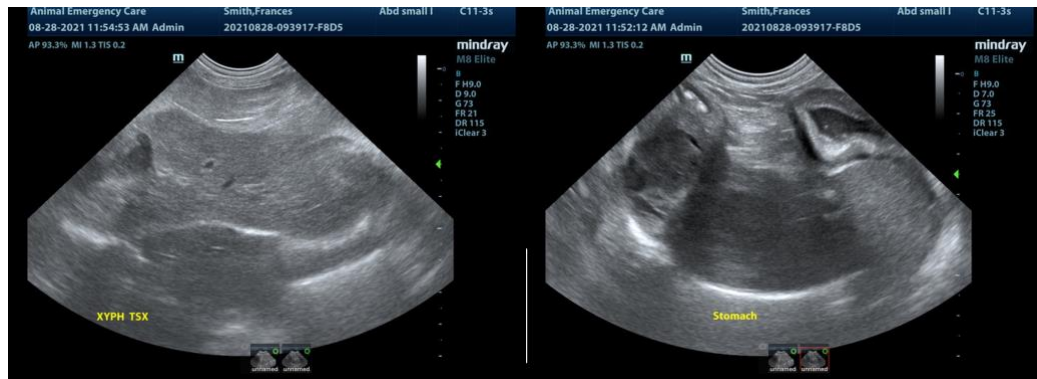
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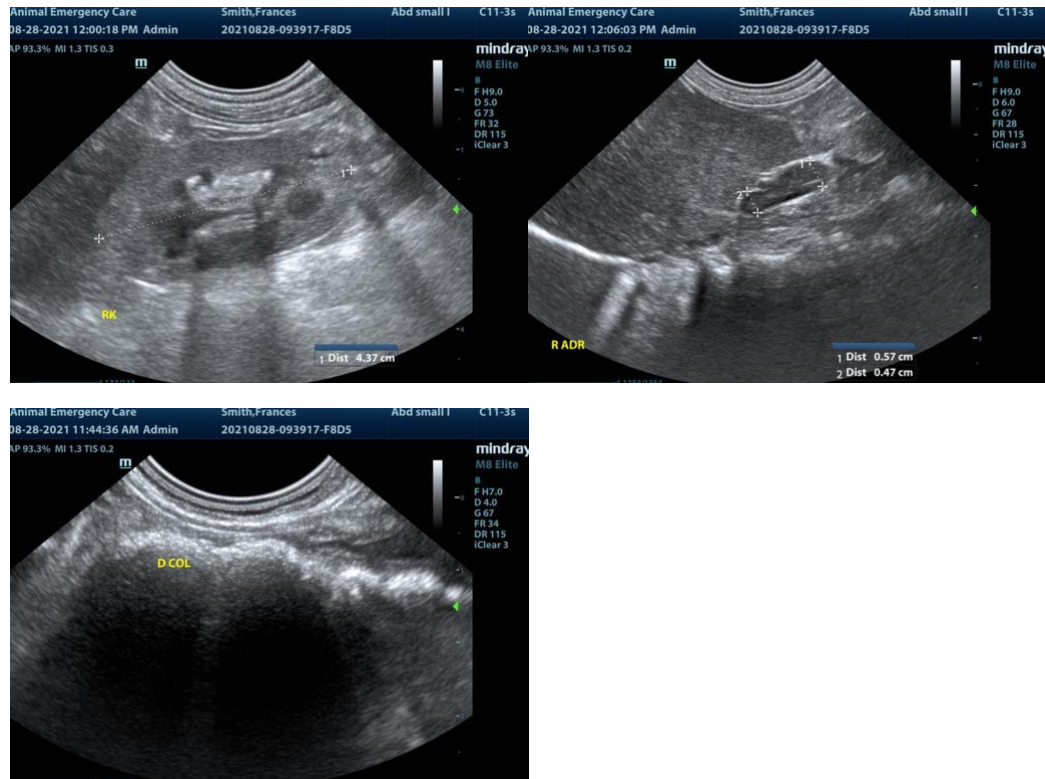
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com