



PATIENT

Miley Knieriemen

SPECIES

Canine

BREED

Husky

SEX

Spayed Female

AGE

6 Years

WEIGHT

21.5 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Anna Wepprich

HOSPITAL NAME

Wilvet Salem

REFERRING VET

Dr. Anna Wepprich

INVOICE

39642

DATE

7/18/22

PRESENTING CLINICAL SIGNS

Urinary incontinence x 4 months, some response with Proin. Diagnosed with Diabetes mellitus and UTI 6/29, progressively lethargic since. Not started on antibiotics until 7/15. Hospitalized for DKA since 7/16, now improving and eating well. Looking for comorbidities - pancreatitis, pyelonephritis. Abnormal PE/Chem/CBC/UA Results: cbc - leukocytosis chem - ALKP 3256 U/L ; ALT 217; BUN 5 mg/dl; Glu 402 mg/dl; GGT 40 U/L; Amylase 343 U/L; Lipase 2,246, phos 2.7 cPL - abnormal snap UA - 1.022, visible cocci, culture pending

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. No uroliths or sediment were visualized and anechoic urine was present. 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 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 left kidney measured 6.0 cm. Occasional cortical cyst noted.

Adrenal Glands

The **adrenal glands** appeared slightly enlarged and swollen. No evidence of focal capsular expansion or invasion into the phrenic veins were noted. No overt suspicion of neoplasia was noted. This is considered likely a hyperplastic change associated with stress or adrenal endocrinopathy (PDH). If isosthenuria is persistently present and the patient morphologically suggests Cushing's disease then ACTH testing would be indicated. The left adrenal gland measured 0.70 cm. The right adrenal gland measured 0.80 cm.

Spleen

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change; however, can be related to Cushing's disease or other endocrinopathies.

Liver

The **liver** was diffusely hyperechoic to falciform fat, consistent with vacuolar hepatopathy and/or lipidosis. The **gallbladder** was mildly over distended with suspended and dependent debris, yet not to the level of emerging mucocele, yet sludge appears to be mildly excessive. No adjunctive inflammation was noted.

Gastrointestinal

A minor amount of non-shadowing, non-obstructive ingesta was noted in the **stomach**. Transit of chyme appeared to be adequate, yet some areas of spastic bowel present.

Pancreas

The right limb and base of the **pancreas** were hyperechoic and ill-defined. Localized areas of free fluid noted. Reactive mesentery noted.



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PRIMARY FINDINGS

- Extensive pancreatitis with localized free fluid
- Diabetic hepatopathy
- Diabetic nephropathy
- Bilateral adrenal hypertrophy

SECONDARY FINDINGS

- Gastric ingesta

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

IV fluid support, treatment for pancreatitis and UTI warranted. Blood pressure measurements indicated. Bile acid profile would be warranted, given the diffuse hepatic changes. Underlying Cushing's/PDH may also be an issue in this patient.

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/>.

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>

Potential Causes of Diabetic Dysregulation

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

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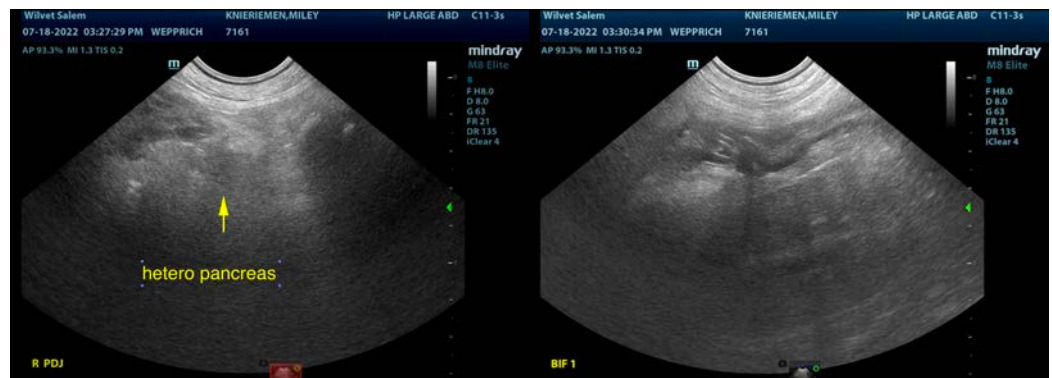
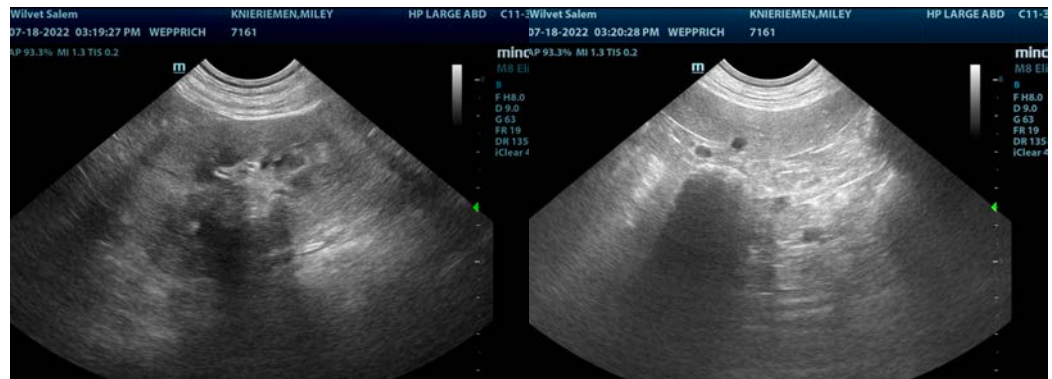
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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

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