



PATIENT PRESENTING CLINICAL SIGNS

Augie Hartzell

History: known diabetic. DKA. Initial good response to insulin CRI but now holding at high >24 hours IVF/CRI. Still poor regulation. Erratic response to insulin. on Enrofloxacin and cerenia.
Abnormal PE/Chem/CBC/UA Results: serum ketones 2+, CPL normal; 11/13: BUN 119, crea 4.4, Phos 10.7, Ca 6.7, ALKPO 353, GGT 15, tbili 1.5; 11/15: BUN >140, crrea 4.1, gluc >600, K 7.2, ALKP 268.

SPECIES

Canine

BREED

Pomeranian

SEX

Intact male

AGE

8 years

WEIGHT

11.4 lbs

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 was noted. Ureteral papillae were normal.

The prostate revealed minor cystic changes.

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 right kidney measured 4.98 cm with slight pyelectasia and slight mineralization. The left kidney measured 4.9 cm.

Adrenal Glands

Both **adrenal glands** were 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 left adrenal gland measured 1.42 x 0.61 cm at the caudal pole and 0.55 cm at the cranial pole. The right adrenal gland measured 1.42 x 0.66 cm at the caudal and 0.67 cm at the cranial pole.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Diane McFadden, RVT

HOSPITAL NAME

Newton VH

INVOICE

93142

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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 was noted.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.



PATIENT

Gastrointestinal

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Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. The small intestines were spastic. This is consistent with enteritis. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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Pancreas

The **pancreas** revealed minor heterogenous parenchymal changes. Low-grade pancreatitis is suspected.

SEX

Intact male

ULTRASONOGRAPHIC FINDINGS

Benign hepatopathy with heterogenous pancreatic changes.

Spastic small intestines.

AGE

8 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Treatment for primary diabetic state in this patient with Leptospirosis titers would be warranted. Ampicillin, Metronidazole and nutraceuticals as well as fluid support are all indicated.

WEIGHT

11.4 lbs

Potential Causes of Diabetic Dysregulation

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

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UTI

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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

HOSPITAL NAME

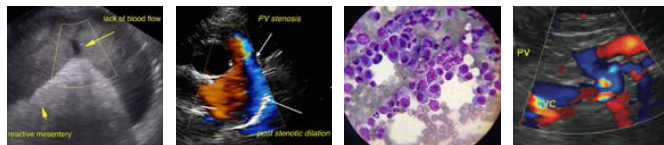
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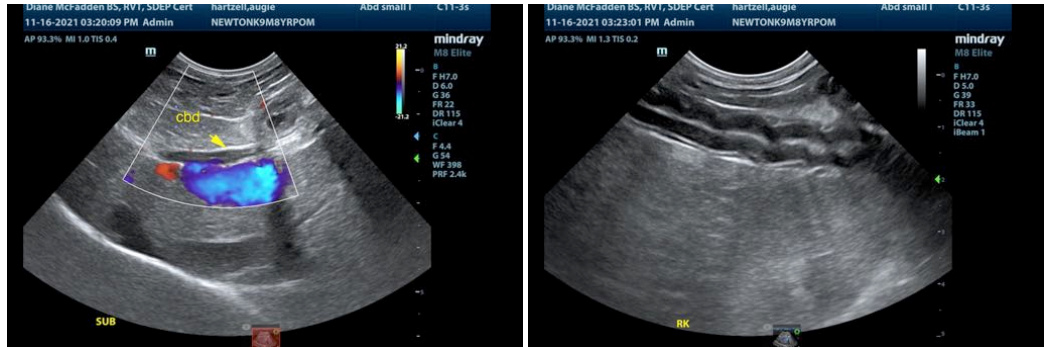
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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