



PATIENT

Corey Lindler

SPECIES

Canine

BREED

Schnauzer

SEX

Neutered male

AGE

11 years

WEIGHT

32 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Amber Goldman RVT

HOSPITAL NAME

Appalachian
Veterinary Ultrasound

REFERRING VET

Dr. Billhorn

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43842

DATE

4/13/23

PRESENTING CLINICAL SIGNS

History: Recently diagnosed diabetic about 1 month ago. Spells of not eating lethargy, seeming low glucose at home (responded well to Karo syrup). Insulin was started at 4 units, then went to 5, then to 7 units. Owner described an episode of him acting extremely pruritic and agitated which subsided after she gave 25 mg. Diphenhydramine. He is not himself and owner having trouble giving insulin when he does eat, which has been quite little in the past few days.
Abnormal PE/Chem/CBC/UA Results: Very high bilirubin 2.7 otherwise unremarkable

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed a proximal urethra/trigonal calculus at 0.46 cm.

The residual prostate was uniform and measured 0.8 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Slight pinpoint mineralization was noted. The left kidney measured 5.6 cm. The right kidney measured 5.4 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 0.61 cm. The right adrenal gland measured 0.53 cm.

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself. This is a positional variant and is not pathological. There was no evidence of significant disease.

Liver

The **liver** was uniformly swollen. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. A 6.6 x 3.4 cm expansive parenchymal mass was noted in the mid liver. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. The gallbladder was mildly overdistended with suspended and dependent debris. This is consistent with emerging mucocele.



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Gastrointestinal

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There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

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Pancreas

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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.

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ULTRASONOGRAPHIC FINDINGS

AGE

Liver mass, potentially resectable.

11 years

Excessive gallbladder debris/emerging mucocele.

WEIGHT

32 lbs

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The gallbladder presentation or potential periodic passage of calculi may be playing a role with the clinical status of this patient. It is difficult to assess the exact position of the liver mass. It appears to be left-sided, potentially resectable. I recommend CT evaluation for surgical planning of the liver mass, cholecystectomy, cystotomy, stone analysis and culture. Normal and retrograde urethral flushing is warranted at the time of surgery. The liver mass may be histopathologically benign; however, it is expansive and somewhat precarious from a structural standpoint and should be removed. Low-grade hepatocellular carcinoma is possible versus hepatoma.

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Potential Causes of Diabetic Dysregulation

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

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Dietary indiscretion/intolerance

Pancreatitis

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Hyperthyroidism/hypothyroidism

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Exogenous steroids (including topical eye meds)

Cushing's

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Acromegaly

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Owner compliance

Insulin quality issues

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Antibodies to insulin

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Underlying Neoplasia

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Diffuse liver disease

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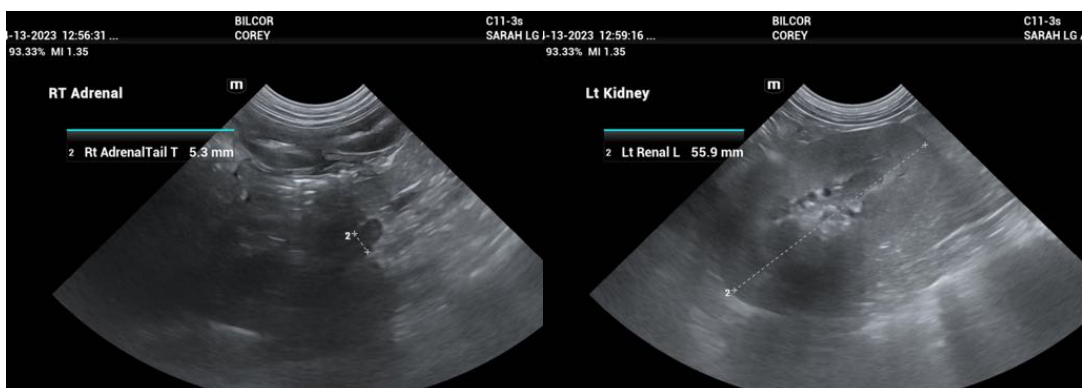
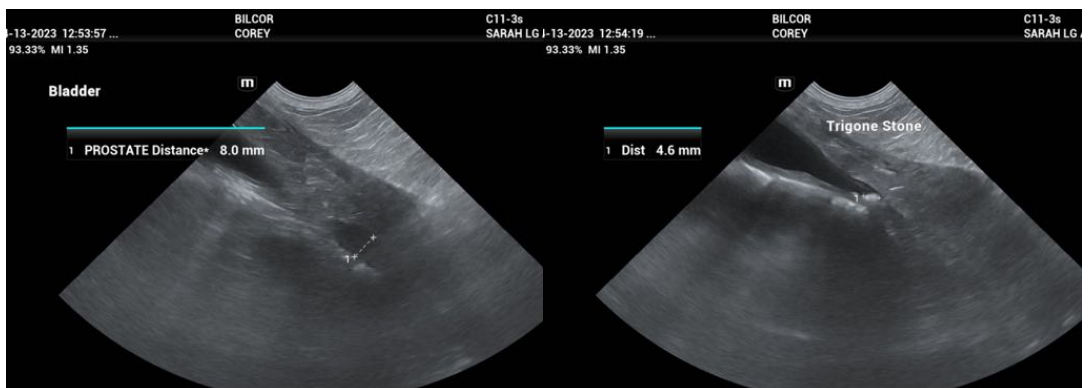
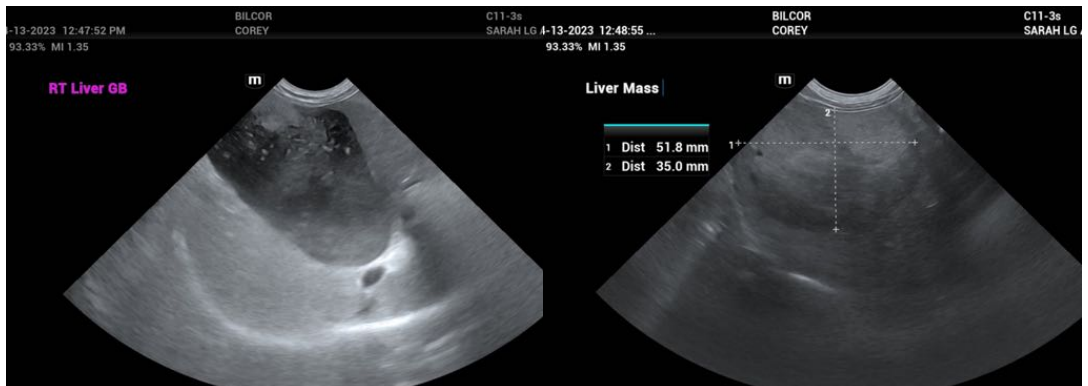
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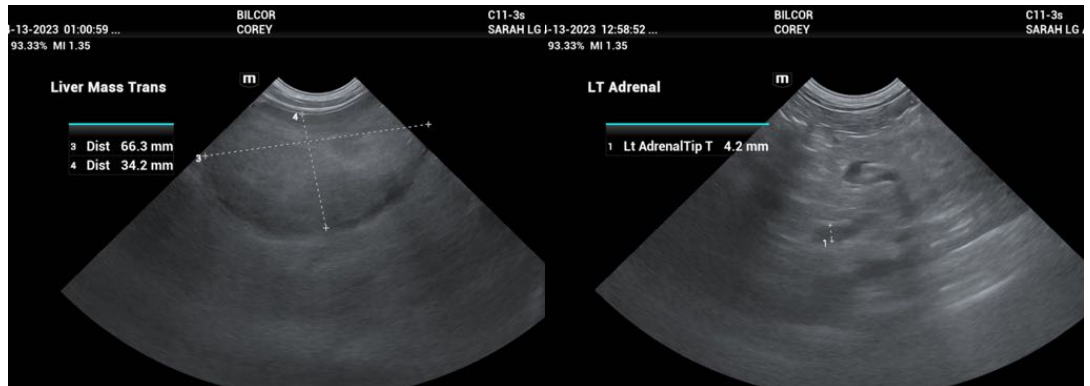
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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