



PATIENT	PRESENTING CLINICAL SIGNS
Raven Arsenault	Hematuria and stranguria. Recently diagnosed with diabetes. On Incurin and Clavamox. R/O bladder mass and assess for any comorbidities.
SPECIES	Abnormal PE/Chem/CBC/UA Results: RADS (attached): thickened bladder wall with possible gas entrapment. UA: SG 1.033, Prot 2+, Blood 3+, Ketones 2+, Glucose 3+. WBC 50-75/HPF, RBC TNTC, moderate Rod bacteria 9-40/HPF BW: Glucose 520, Alb 4.3, Hct 56%, ALP 911
Canine	
BREED	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN
Labrador Retriever	Urinary System
SEX	The urinary bladder presented uniformly thickened urinary bladder wall isoechoic to the adjacent normal urinary bladder wall. The luminal margin of the thickened urinary bladder wall was mildly asymmetrical in contour. Urinary bladder wall thickness measured 0.52 cm. Hyperechoic interface in the ventral and regional dorsal urinary bladder wall with reverberation consistent with gas was present. Mineralization or echogenic foci within the thickened areas of urinary bladder wall was not present. The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal tone. Anechoic urine was present in the lumen with potential for concurrent luminal micromineral possible. The ureteral papillae were normal. The ureters were not visible which is normal.
FS	
AGE	Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.2 cm in length. The right kidney measured 8.2 cm in length.
10yr	
WEIGHT	The area of the aortic trifurcation was free of pathology.
74lb	The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy.
INTERPRETED BY	Adrenal Glands
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The left adrenal gland was mildly prominent in size based on caudal pole measurement. Discrete cranial and caudal pole non-disruptive nodules were present. The cranial pole nodule measured 1.0 cm; the caudal pole nodule measured 0.59 cm. No evidence of capsular distortion, escape of vascular invasion. The left adrenal gland measured 0.83 cm width at the caudal pole and 0.86 cm width at the cranial pole.
IMAGING PERFORMED BY	The right adrenal gland was indistinctly visualized with potential for mild non-homogenous parenchyma, no overt tumors. The right adrenal gland measured 0.7 cm width at the caudal pole.
Karen Ebersole	
HOSPITAL NAME	Spleen
Scanvet	The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.
REFERRING VET	Liver/Gallbladder
Dr. Giroux	The liver presented increased in size. The parenchyma of the liver was subjectively increased in echogenicity compared to the spleen and renal cortices. The echotexture of the liver parenchyma was
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PATIENT	
Raven Arsenault	uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content and non-organized echogenic luminal debris. The cystic and common bile ducts were normal.
SPECIES	Gastrointestinal
Canine	The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild gastric distension with primarily anechoic fluid was present.
BREED	The Small Intestine
Labrador Retriever	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor duodenal corrugation was present. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.
SEX	Normal visible colon wall layers were present with apparent formed feces in lumen.
FS	Pancreas
AGE	The right pancreatic limb exhibited mild prominent size and capsule asymmetry with mild heterogenous parenchyma compared to the adjacent omental fat.
10yr	Free Abdomen
WEIGHT	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
74lb	ULTRASONOGRAPHIC FINDINGS
INTERPRETED BY	<ul style="list-style-type: none"> • Emphysematous cystitis • Mild age related kidney changes-no pyelectasia • Discretely nodule left adrenal gland-suspect adenomas • Diabetic hepatopathy pattern • Mild gallbladder debris (non-mucocele) • Heterogenous mildly prominent right pancreas, possible mild gastroduodenitis
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
IMAGING PERFORMED BY	A urine C/S on a sterile urine sample with antibiotic therapy based on results is recommended. Empirical therapy to cover for e. coli commonly cultured in these cases is recommended pending C/S results. Sonographic monitoring of the urinary bladder is suggested.
Karen Ebersole	
HOSPITAL NAME	Sonographic monitoring of the left adrenal gland for evidence of progressive nodular changes is advised. Hepatosupportive medications such as Denamarin and Ursodiol may prove beneficial. A spec cPL is suggested to assess for evidence of low-grade or chronic pancreatitis as a contributing factor. No evidence of significant pancreatitis or pancreatic/intra-abdominal neoplasia was present.
Scanvet	
REFERRING VET	This is a suggestive checkoff list when faced with an unregulated diabetic patient:
Dr. Giroux	<ul style="list-style-type: none"> • UTI • Dietary indiscretion/intolerance • Pancreatitis • Hyperthyroidism/hypothyroidism • Exogenous steroids (including topical eye meds)
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PATIENT

Raven Arsenault

SPECIES

Canine

BREED

Labrador Retriever

- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

SEX

FS

AGE

10yr

WEIGHT

74lb

INTERPRETED BY

R. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)

IMAGING PERFORMED BY

Karen Ebersole

HOSPITAL NAME

Scanvet

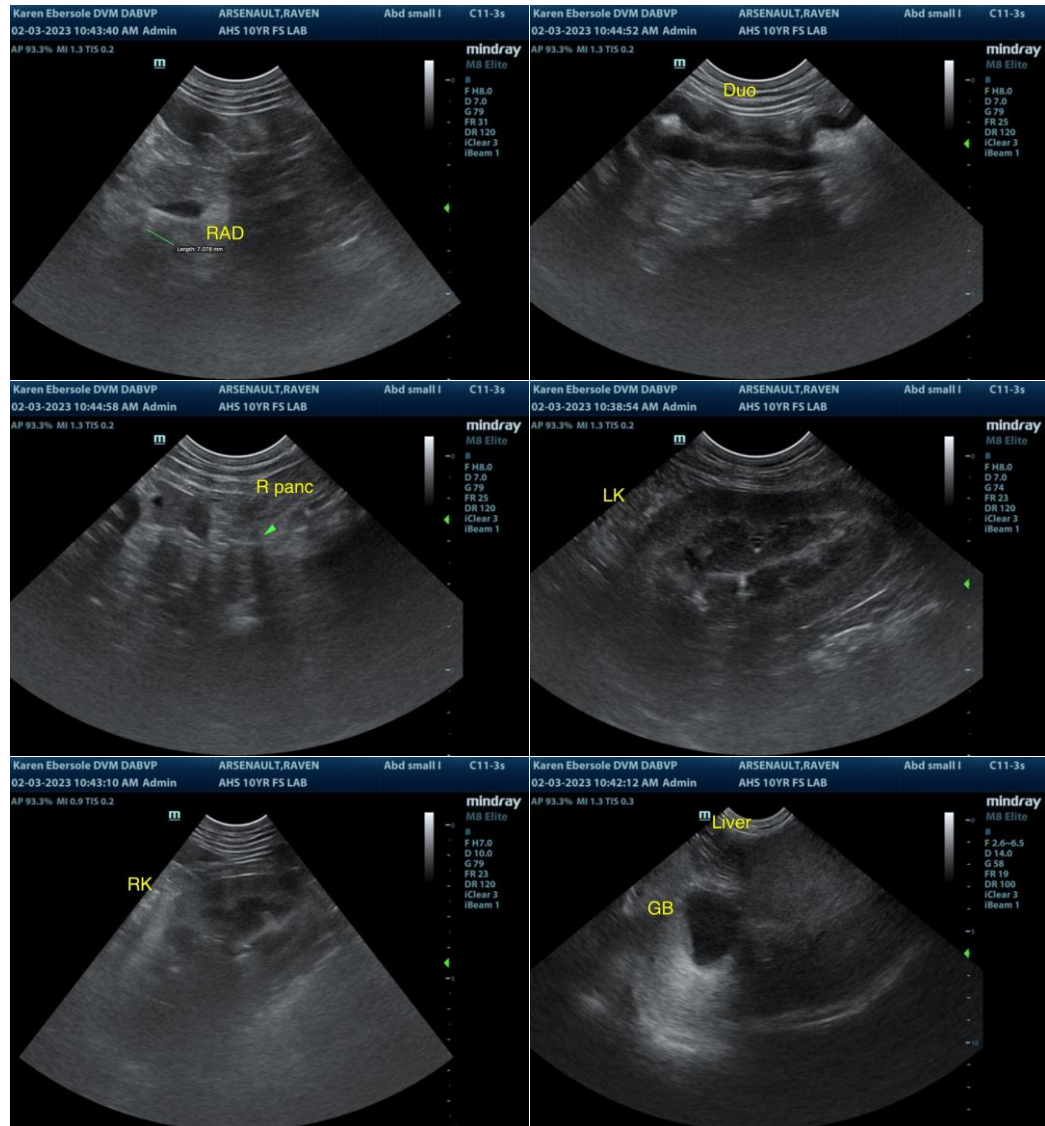
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PATIENT

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SPECIES

Canine

BREED

Labrador Retriever

SEX

FS

AGE

10yr

WEIGHT

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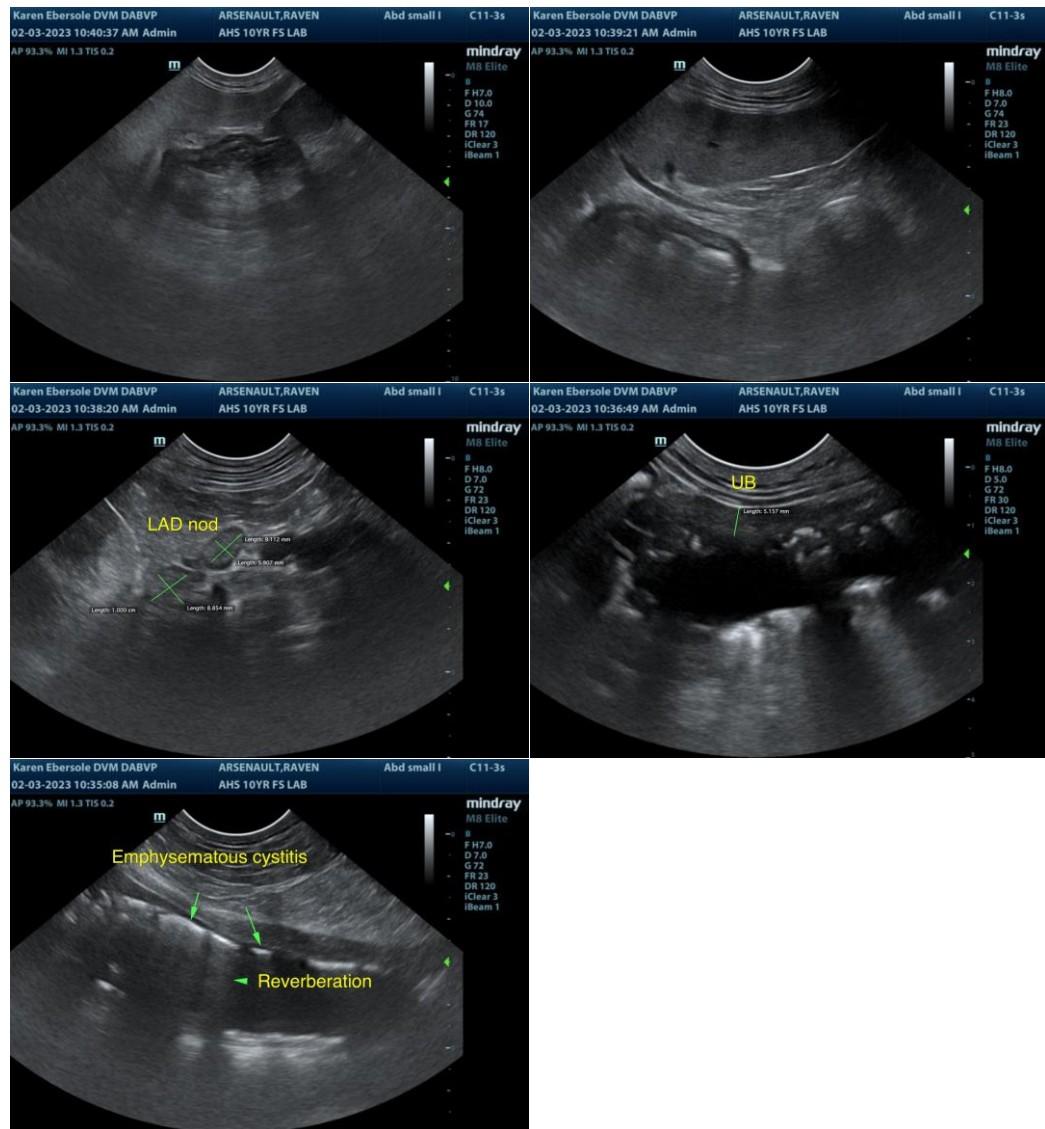
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Dr. Giroux

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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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
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