



**PATIENT PRESENTING CLINICAL SIGNS**

**PATIENT** Hoover Drumm diabetes - on insulin, hypertension on amlodipine, stage 1 renal failure enlarged abdomen - owner would like investigated

**SPECIES** Abnormal PE/Chem/CBC/UA Results: Glucose 393, BUN = 41, Crea = 2.1, was 2.4 blood pressure was 240, now on amlodipine and 150-160  
Feline

**BREED** Current Medications Amlodipine, Prozac insulin 2 units BID SQ

DLH Radiographic Findings none

**SEX**

MN

**AGE**

16yr

**WEIGHT**

13.3lb

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Sara Hansen

**HOSPITAL NAME**

Q Street Animal  
Hospital

**REFERRING VET**

Dr. Bretschneider

**INVOICE**

12998ag

**DATE**

02/17/2023

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with moderate non-dependent to swirling particulate sediment. The sediment may indicate cellular debris / protein, crystalline debris, lipid, or mucus. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. The renal medullary volume was subjectively reduced. Pinpoint dystrophic medullary mineralization was present bilaterally. The left kidney measured 3.8 cm in length. The right kidney measured 4.0 cm in length.

The area of the aortic trifurcation was free of pathology.

**Adrenal Glands**

The area of the left adrenal gland was free of pathology. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.54 cm width. No overt evidence of adrenal tumors.

**Spleen**

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.

**Liver/Gallbladder**

The liver was subjectively borderline to mildly enlarged with symmetrical contour and generalized mild increased parenchyma echogenicity. Lobar biliary tree mineralization was present. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content with moderate non-organized variably echogenic focally hyperechoic debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.



**PATIENT** *Gastrointestinal*

Hoover Drumm  
**SPECIES** The stomach presented intact wall layering with a normal wall layer ratio. Mildly prominent to hyperechoic mucosa/submucosa which is likely a normal patient or age related variant. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

Feline  
**BREED** The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Segmental propensity for mildly prominent intestinal wall layering yet no evidence of significant intestinal mural hypertrophy, loss of intestinal wall layering or intestinal masses. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. The duodenum wall measured 0.27 cm width. The jejunum wall measured 0.30 cm width. The ileocolic wall measured 0.30 cm width.

**SEX** Normal visible colon wall layers were present with apparent formed feces in lumen.

**MN** *Pancreas*

**AGE** The pancreas was normal in size and contour with heterogeneous to mixed echogenic regionally hyperechoic parenchyma in the right pancreatic limb. No signs of active inflammation or neoplasia.

16yr *Free Abdomen*

**WEIGHT** No omental masses, overt lymphadenopathy or peritoneal effusion was present.

13.3lb **ULTRASONOGRAPHIC FINDINGS**

**INTERPRETED BY**

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

- Moderate urinary bladder sediment
- Moderate chronic renal changes
- Overtly normal bilateral adrenal glands
- Non-specific lobar biliary tree mineralization
- Moderate gallbladder debris with focal emerging mineralization
- Heterogenous to mixed echogenic pancreas
- Intact subjective borderline prominent segmental small intestinal walls

**IMAGING PERFORMED BY**

Sara Hansen

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Q Street Animal Hospital

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended. The biliary tree mineralization is non-specific and potentially incidental yet at times in conjunction with the gallbladder debris been associated with chronic or previous hepatobiliary inflammatory disease. Assessment for evidence of cranial abdominal/subxiphoid discomfort on palpation +/- a spec fPL for evidence of chronic pancreatitis is recommended. No evidence of intra-abdominal neoplastic criteria.

**REFERRING VET**

Dr. Bretschneider

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

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- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)

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**PATIENT**

Hoover Drumm

**SPECIES**

Feline

**BREED**

DLH

**SEX**

MN

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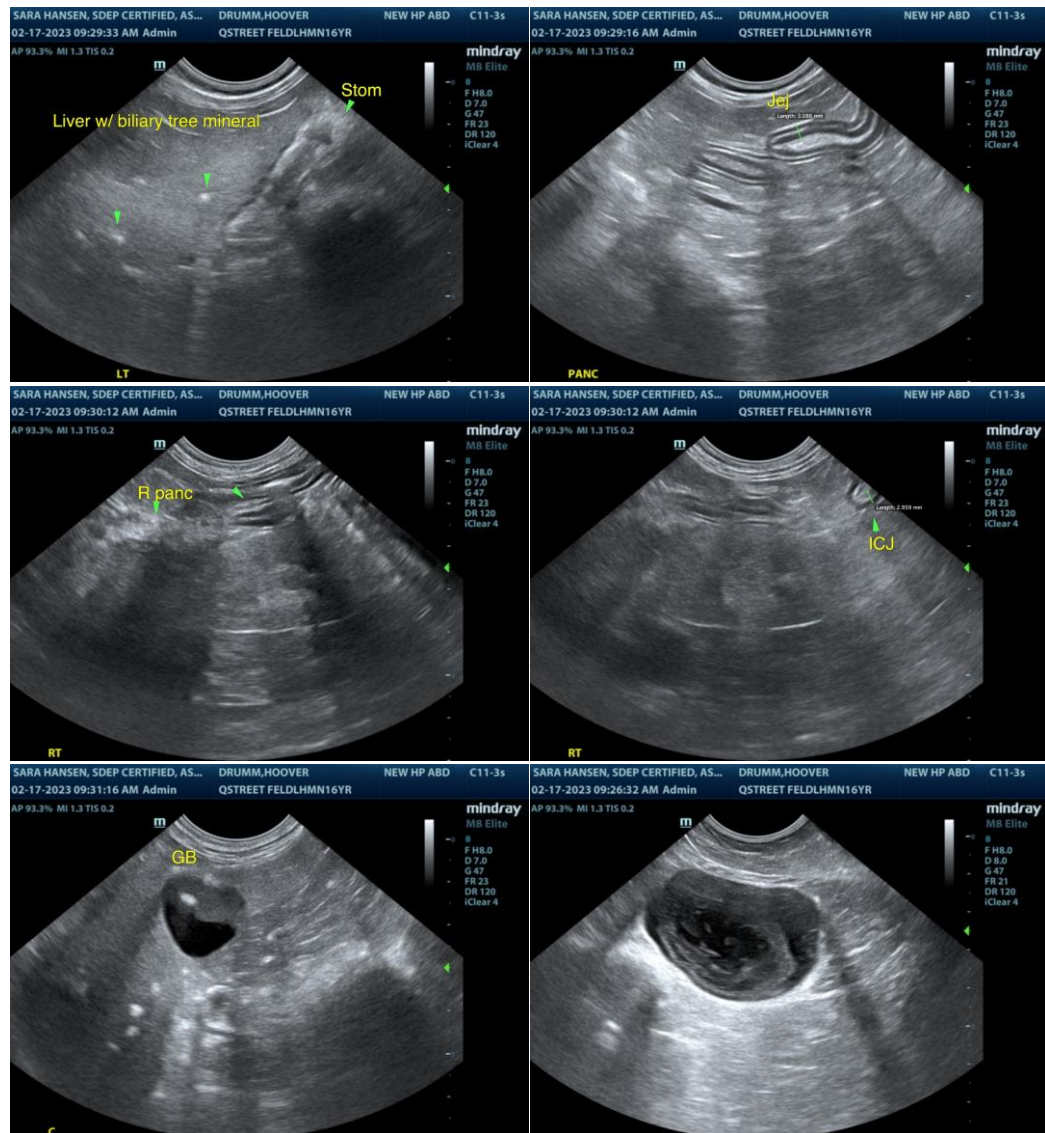
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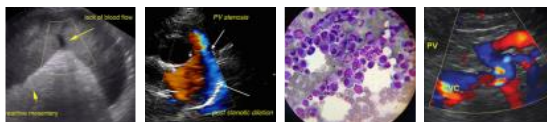
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- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease





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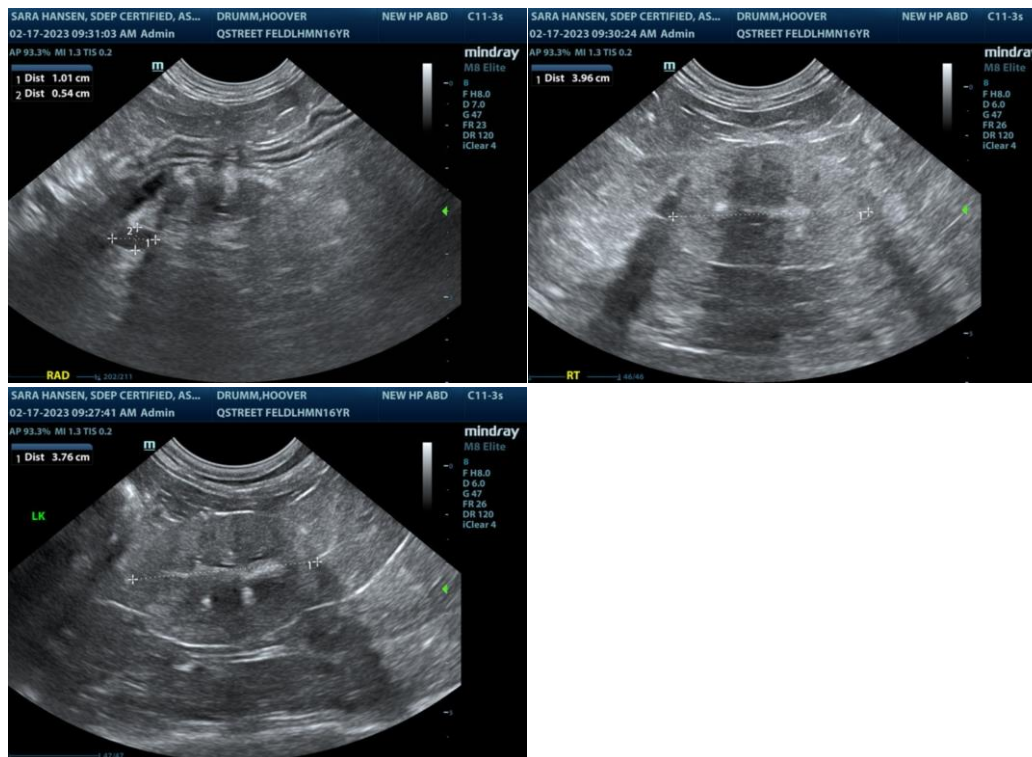
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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