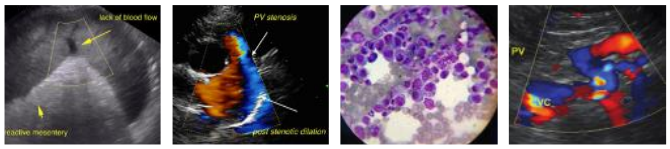
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Buddy Breen/Sledge

SPECIES

Canine

BREED

Lhasa Apso

SEX

Neutered Male

AGE

13 Years

WEIGHT

8.16 kg

INTERPRETED BY

Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Massa

HOSPITAL NAME

Animal Emergency Hospital, Volusia

REFERRING VET

Dr. Massa

INVOICE

15806

DATE

5/29/22

PRESENTING CLINICAL SIGNS

History: History of diabetes prior - owner was giving 12 units Humulin BID, P stopped eating very much at home for 36 hours, then ate so owner gave 1/2 dose. P stopped eating again so came to ER for continued care. At ER with diagnostics done found pancreatitis positive, DKA, moderate ketones, and mild UTI.

Abnormal PE/Chem/CBC/UA Results: calcium 7.7, glucose >600, cholesterol >450, ALT 123, ALP 747, GGT 16, Tbilli 0.6, PLT 617, sodium 137, moderate ketones, CPLi positive

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **bladder** in this patient was mildly thickened with slight echogenic mural changes. No calculi or masses were noted. Slight micropolypoid changes were noted. This is a frequent finding in older animals and may be linked to a history of chronic urinary tract infection or active urinary tract infection. Urinalysis would be recommended with culture if any evidence of inflammatory sediment is present. The region of the trigone and visible pelvic urethra were normal. This is a moderate change.

The **kidneys** were normal in size and contour; however, a minor hyperechoic ring was noted at the corticomedullary junction. Increased cortical echogenicity noted, consistent with degenerative changes. This is consistent with moderate 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. Both kidneys measured 5.0 cm each.

Adrenal Glands

The **adrenal glands** were not visualized.

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. This is a mild change.

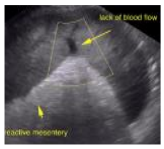
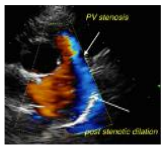
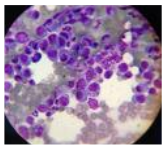
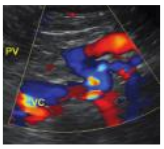
Liver

The **liver** presented heterogenous parenchyma with increased portal markings and coarse architecture. Slight undulating capsular contour was noted. The gallbladder and common bile duct were unremarkable. This is consistent with chronic inflammatory hepatopathy.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. 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.

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.

ULTRASONOGRAPHIC FINDINGS

- Diabetic hepatopathy with remodeling
- Diabetic nephropathy
- Mild urinary bladder thickening, consistent with chronic UTI
- Splenic mineralization

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend treatment of the primary diabetic state. FNA of the liver indicated to assess for suppurative hepatitis and primary treatment for the UTI noted. If the patient appears Cushingoid, then further imaging of the adrenal glands warranted under sedation. The UTI may be the reason why the patient dysregulated.

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

Chronic UTI Protocol

I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.

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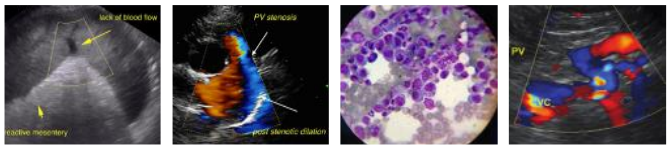

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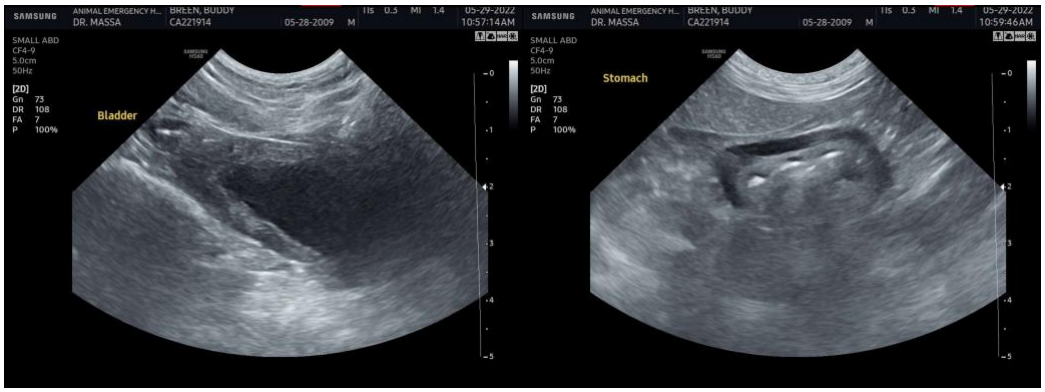

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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