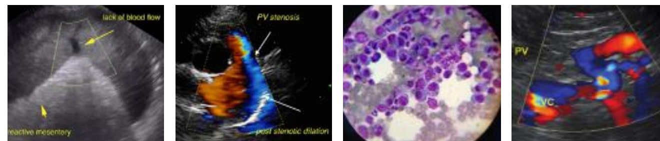


SonoPath.com™
1-800-838-4268 info@sonopath.com

PATIENT

Lily Torres

SPECIES

Canine

BREED

Mini Pinscher

SEX

FS

AGE

12 yr 7 mo

WEIGHT

7.23 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Debbie White DVM

HOSPITAL NAME

Lone Mountain Animal Hospital

REFERRING VET

Dr. Debbie White

INVOICE

10652ag

DATE

05/23/2022

PRESENTING CLINICAL SIGNS

History: Diabetic patient not doing well. Originally presented for bg curve today- but marked weight loss noted- workup pursued with modified bg sampling today. On vetsulin 8 units sq bid, w/d dry and canned food. Lost 3 pounds since Oct 2021. pu/pd/panting. eats very well. occasional vomiting - vomited this morning and last was 2 weeks ago some glucose curves in the past were flat lined, others had marked peak/drops glucose between 146-500 during day. glucose values 5.23.22 current dose 8 units vetsulin sq bid. ate/insulin 6:30am 7:30 am 444 11:30 92 1:30 110 glucose curve 10.4.21 dose 8 units vetsulin sq bid 7am 287 9-144 11-243 1pm -355 3-437 5pm 492 glucose history 5.3.21 dose 7 units vetsulin sq bid 7am 438 9 314 11am 379 1pm= 638 3pm=460

Abnormal PE/Chem/CBC/UA Results: 5.23.22 PE: mature cataracts, pot belly nonpainful on palpation, crusted thick dried urine on vulva abdomen/thorax xrays: right sided hepatomegally with right sided gastric deviation on vd view. some ingesta/gas w/in stomach cbc/chem: incr ast-79, incr alp=2698, bun/creat=34, incr gluc=448, decr ca=8.7, incr choles=469, decr amy-249 UA sg 1.044, 3+ glucose, trace ketones, culture pending

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 were noted. Ureteral papillae were normal.

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 left kidney measured 4.5 cm in length. The right kidney measured 4.5 cm in length.

Adrenal Glands

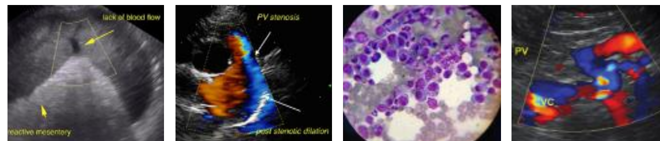
Mild bilateral adrenal enlargement was noted with swollen contour. The left adrenal gland measured 7 mm in width. The right adrenal gland measured 1.0 cm width at the cranial pole and 0.8 cm width at the caudal pole. The region of the right adrenal gland revealed no evident pathology.

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 were noted.

Liver

The liver was uniformly swollen with moderate 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 moderately increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of



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remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. Minor gallbladder sludge was observed.

Gastrointestinal

The gastrointestinal tract presented considerable gastric artifact due to the presence of ingesta. This did not permit thorough evaluation of portions of the gastric and upper intestinal structure. No overt abnormality was seen in the visualized tissue, however. This is consistent with a post-prandial presentation within a few hours of mealtime. If the prandial temporal interval does not fit the case history, and the patient presents a history of post-prandial vomiting, this could indicate a delayed upper gastrointestinal outflow due to primary or secondary pyloric hypertrophy, upper GI infiltrative disease, motor deficits, or a non-visualized foreign body. A prudent approach would be to rescan this patient at 24 hour NPO status to further review the non-visible regions if stomach primarily as well as assess any delayed outflow issue.

Pancreas

The pancreas exhibited subtle heterogeneous parenchymal changes. Some level of low-grade inflammation is possible.

ULTRASONOGRAPHIC FINDINGS

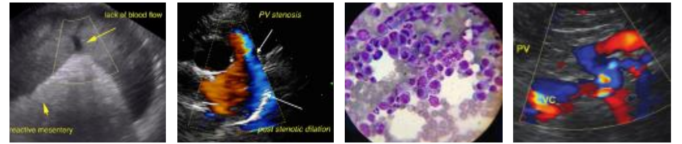
- Diabetic nephropathy
- Diabetic hepatopathy
- Mild bilateral adrenal enlargement. The adrenal enlargement may be owing to stress or atypical Cushing’s disease given that the USG is well concentrated. Standard cortisol-based Cushing’s disease is unlikely.
- Heterogeneous pancreatic parenchymal changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assessment and empirical treatment for low grade pancreatitis is recommended. A full adrenal panel to the University of Tennessee may prove fruitful.

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
Diffuse liver disease



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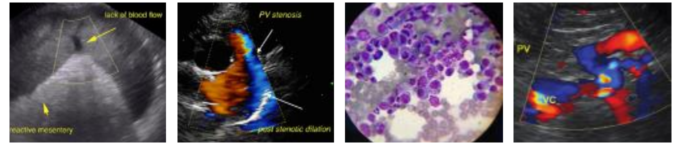

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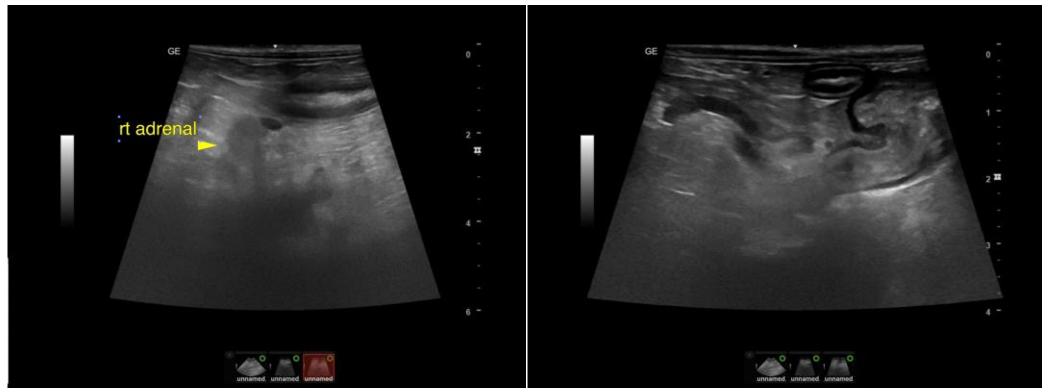

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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
Eric.Lindquist@SonoPath.com