



**PATIENT**

Zoe Shusko

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

33.3 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Melissa Rosen

**HOSPITAL NAME**

South Bellmore

**REFERRING VET**

South Bellmore VG

**INVOICE**

21638

**DATE**

3/15/23

**PRESENTING CLINICAL SIGNS**

History of proteinuria from previous vet, on benazepril for that, recent bloodwork was stable, presented yesterday for decreased appetite, bloodwork shows diabetes, urinalysis supports diagnosis, urine culture pending, BCS 7.5/9

Abnormal PE/Chem/CBC/UA Results: BG 571, elevated plt, mild azotemia, hypochloremia hyponatremia, normal potassium, ALP 2000, ALT 215, alb 2.6, CPLi- abnormal

**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 a mild change, 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. Slight nonobstructive mineralizations were noted. The left kidney measured 5.1 cm. The right kidney measured 6.0 cm.

**Adrenal Glands**

The regions of the **adrenal glands** were imaged and revealed no evidence of pathology.

**Spleen**

The **spleen** revealed multifocal hypoechoic nodules. The nodules were nondisruptive, however, FNA is indicated.

**Liver**

The **liver** was diffusely hyperechoic to the falciform fat with multifocal hypoechoic, non-disruptive nodular changes. The largest nodule measured approximately 2.0 cm. The liver revealed generalized enlargement. The gallbladder was unremarkable. There is no suspicion of neoplasia; however, diffuse disease is present. Bile acid profile would be ideal as well as FNA. Minor gallbladder polyps were noted. This is a moderate change.

**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**

The base of the **pancreas** revealed a single region (approximately 2.0 cm x 2.0 cm adjacent to the upper duodenum) of hypoechoic irregular parenchyma. FNA of this region is indicated.

**ULTRASONOGRAPHIC FINDINGS**



## PATIENT

Zoe Shusko

- Diabetic hepatopathy nodular hyperplasia liver pattern
- Undefined splenic nodules- nodular hyperplasia or round cell neoplasia, or suppurative splenitis are possible
- Hypochoic area of the pancreas- necrosis, pancreatitis, or carcinoma all possible
- Diabetic nephropathy pattern

## SPECIES

Canine

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

## BREED

Puggle

Strongly recommend FNA of the spleen, liver and pancreatic lesions in this patient for further definition, to assess inflammatory cell type, as well as rule out underlying neoplasia. Treatment for pancreatitis is warranted in the meantime.

## SEX

Spayed Female

## Potential Causes of Diabetic Dysregulation

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

## AGE

12 Years

UTI

Dietary indiscretion/intolerance

Pancreatitis

Hyperthyroidism/hypothyroidism

## WEIGHT

33.3 Pounds

Exogenous steroids (including topical eye meds)

Cushing's

Acromegaly

## INTERPRETED BY

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

Owner compliance

Insulin quality issues

Antibodies to insulin

## IMAGING PERFORMED BY

Melissa Rosen

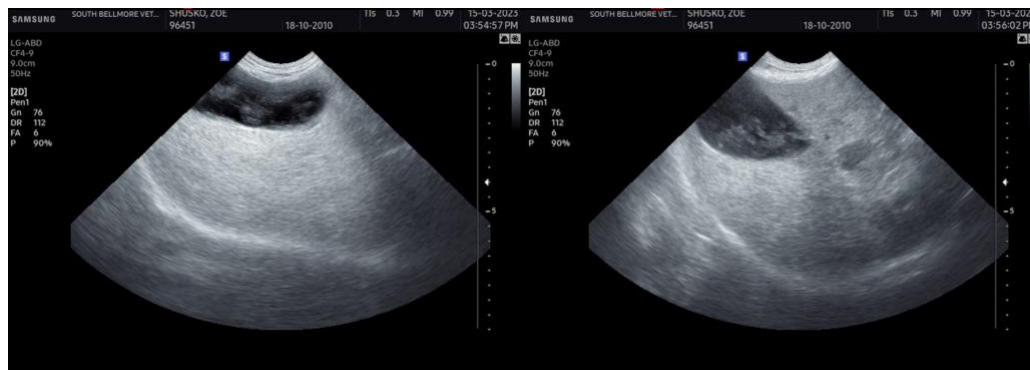
Underlying Neoplasia

## HOSPITAL NAME

South Bellmore

## REFERRING VET

South Bellmore VG



## INVOICE

21638

## DATE

3/15/23



**PATIENT**

Zoe Shusko

**SPECIES**

Canine

**BREED**

Puggle

**SEX**

Spayed Female

**AGE**

12 Years

**WEIGHT**

33.3 Pounds

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Melissa Rosen

**HOSPITAL NAME**

South Bellmore

**REFERRING VET**

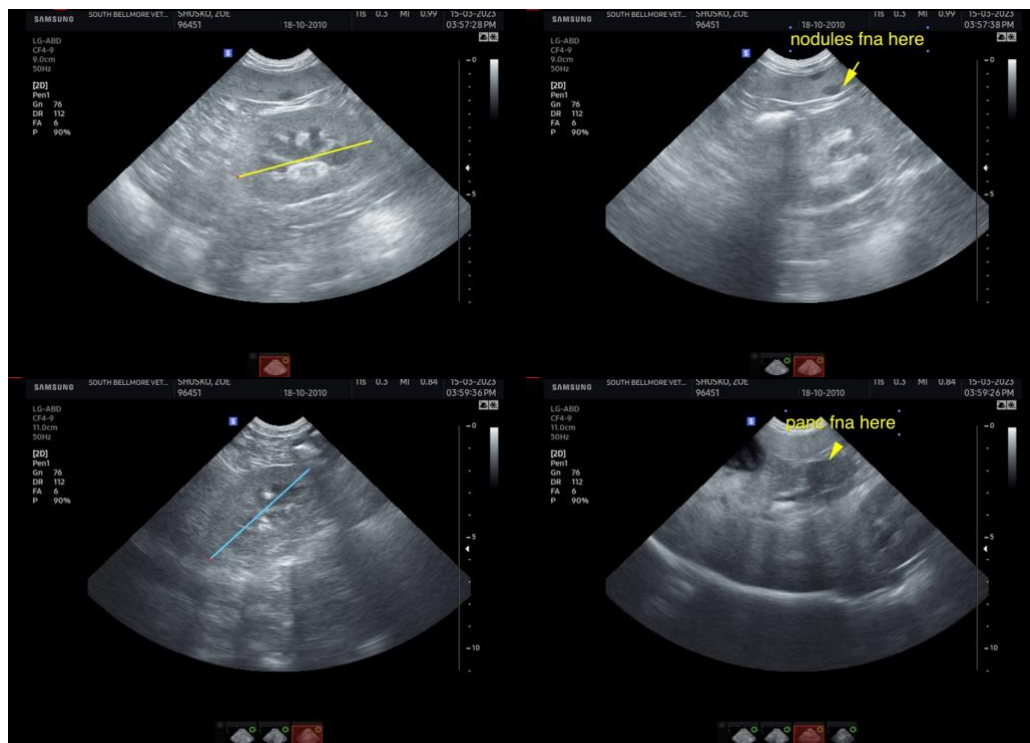
South Bellmore VG

**INVOICE**

21638

**DATE**

3/15/23



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