



PATIENT PRESENTING CLINICAL SIGNS

Shay Rubin New diabetic on 13 units of Humulin N, but still in 300's.

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Canine **Urinary System**

BREED The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction. 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 was noted. Ureteral papillae were normal.

Shih Tzu

SEX

Spayed Female The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex. The capsules were acceptably uniform without significant irregularities. Pyelectasia was noted in the left kidney and measured 0.89 cm. The left kidney measured 4.9 cm. The right kidney measured 4.85 cm.

AGE

5 years

INTERPRETED BY Adrenal Glands

Eric Lindquist, DMV DABVP, Cert. IVUSS Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 2.28 x 0.6 cm. The right adrenal gland measured 2.0 x 1.0 cm at the cranial pole and 0.54 cm at the caudal pole.

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Eric Lindquist, DMV DABVP, Cert. IVUSS

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Dr. Stoltze

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 was noted.

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Liver

Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.



PATIENT

Gastrointestinal

Shay Rubin

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.

SPECIES

Canine

BREED

Shih Tzu

Pancreas

The **pancreas** was heterogenous, hypoechoic and irregular changes in the right limb. The region of the pancreatic remodeling is approximately 2.0 x 3.0 cm.

SEX

Spayed Female

ULTRASONOGRAPHIC FINDINGS

Pancreatic remodeling.

AGE

5 years

Benign hepatopathy with minor remodeling.

Minor pyelectasia of the left kidney.

INTERPRETED BY

Eric Lindquist, DMV
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If any inflammatory sediment is present in the urine, embedded infection in the left kidney is a potential. Low-grade pancreatic inflammation is a potential. Diet change to a hydrolyzed diabetic friendly diet would be ideal if any inflammatory sediment is present. 4 week antibiotic therapy is warranted to treat for occult pyelonephritis both of which can be playing a role in diabetic dysregulation.

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Potential Causes of Diabetic Dysregulation

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

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UTI

Dietary indiscretion/intolerance

Pancreatitis

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Hyperthyroidism/hypothyroidism

Exogenous steroids (including topical eye meds)

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Cushing's

Acromegaly

Owner compliance

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Insulin quality issues

Antibodies to insulin

Underlying Neoplasia

Diffuse liver disease



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SPECIES

Canine

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Shih Tzu

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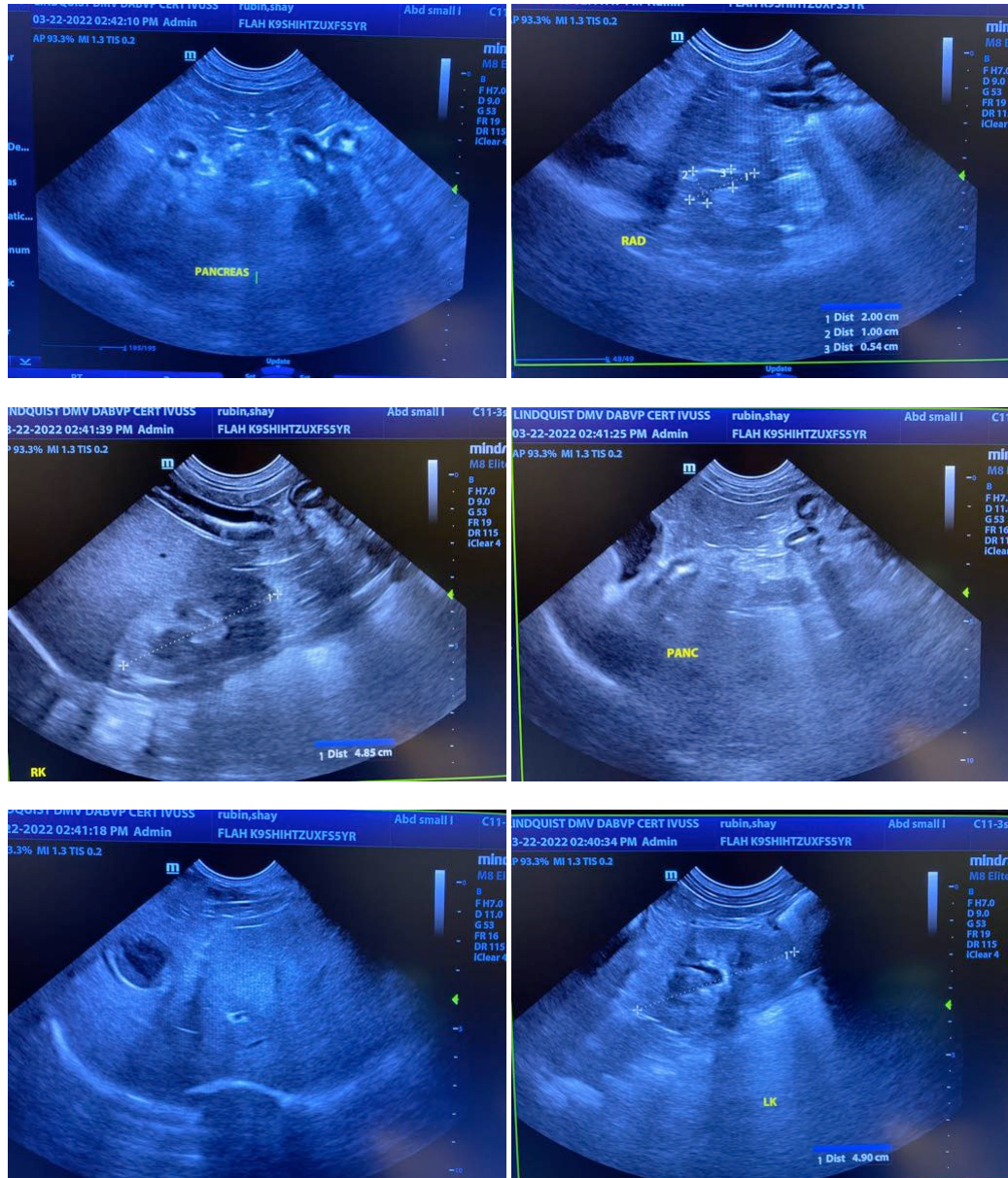
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

DATE

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