



**PATIENT PRESENTING CLINICAL SIGNS**

**Mia Heist**  
History: Recently diagnosed diabetic, minimal response at 7U insulin, ketonuria also noted. Concern for Cushing's dz. LDDS supportive of Pituitary HAC, but per Idexx specialist requires follow up testing to confirm Cushing's

**SPECIES**  
Abnormal PE/Chem/CBC/UA Results: ALP 5226 Glu 513 Trigly 452 UPC 2.2 LDDS 5.6 baseline 2.1 at 4 hours (high >1.4) 2.5 at 6 hours (high >1.4)

Canine

**BREED ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Silky Terrier **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 was noted. Ureteral papillae were normal.

**SEX**

Spayed female

**AGE**

11 years

**WEIGHT**

18 lbs

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 4.2 cm.

**Adrenal Glands**

The right adrenal gland was normal in size and contour measuring 1.45 cm at the cranial pole and 0.75 cm at the caudal pole. The region of the left adrenal gland revealed a 3.0 x 2.0 cm structure that is suspicious for a left adrenal mass. However, the patient was extremely tense upon imaging. This along with colonic artifact did not allow for optimal resolution.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Dr. Brady

**Spleen**

**HOSPITAL NAME**

Shiloh VH

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.

**REFERRING VET**

Dr. Bangs

**Liver**

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Exam of the cranial abdomen demonstrated excessive **liver** size, swollen contour, with conserved uniform architecture. Parenchymal echogenicity was diffusely isoechoic to the spleen and falciform fat. 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

**DATE**

11/1/22



**PATIENT** endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

Mia Heist

**Gastrointestinal**

**SPECIES** 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.

Canine

**BREED**

Silky Terrier

**Pancreas**

The right limb of the **pancreas** was heterogenous with mixed echogenic changes.

**SEX**

Spayed female

**ULTRASONOGRAPHIC FINDINGS**

**AGE**

Benign hepatopathy.

11 years

Heterogenous pancreas, likely history of pancreatitis.

Structurally normal right adrenal gland. Suspect left adrenal mass, further imaging necessary to confirm.

**WEIGHT**

18 lbs

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

I recommend full sedation in this patient for further imaging of the left adrenal gland from the left and right approaches and its relationship with the vena cava. Otherwise, CT evaluation is warranted.

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUSS

**Potential Causes of Diabetic Dysregulation**

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

**IMAGING PERFORMED BY**

Dr. Brady

UTI

**HOSPITAL NAME**

Shiloh VH

Dietary indiscretion/intolerance

Pancreatitis

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Hyperthyroidism/hypothyroidism

Exogenous steroids (including topical eye meds)

Cushing's

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Acromegaly

Owner compliance

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Insulin quality issues

Antibodies to insulin



**PATIENT** Underlying Neoplasia

Mia Heist Diffuse liver disease

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**HOSPITAL NAME**

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**REFERRING VET**

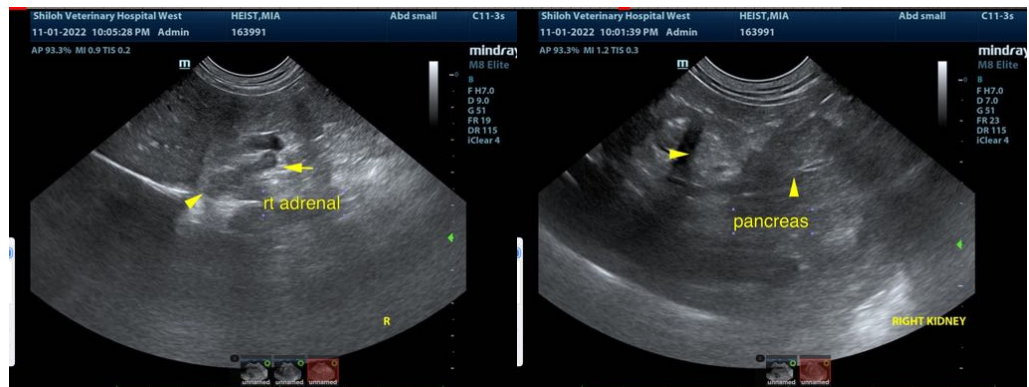
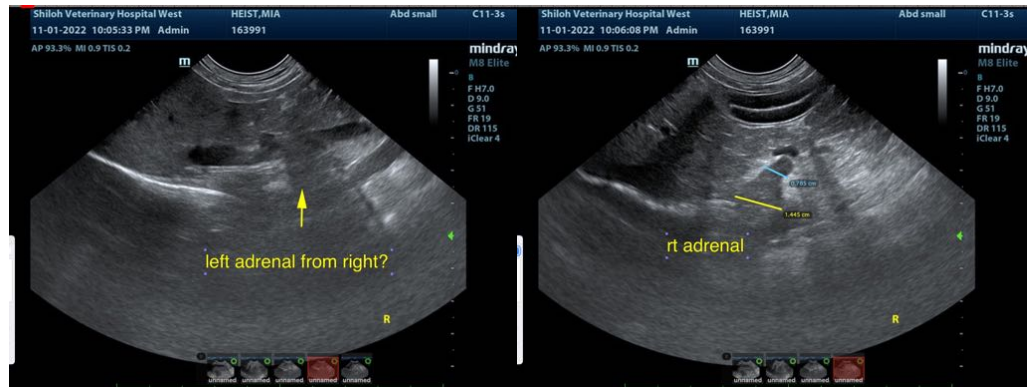
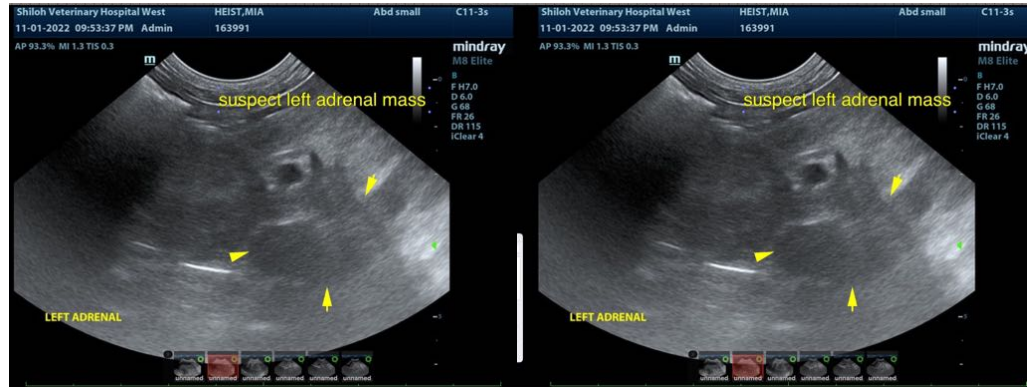
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**PATIENT**

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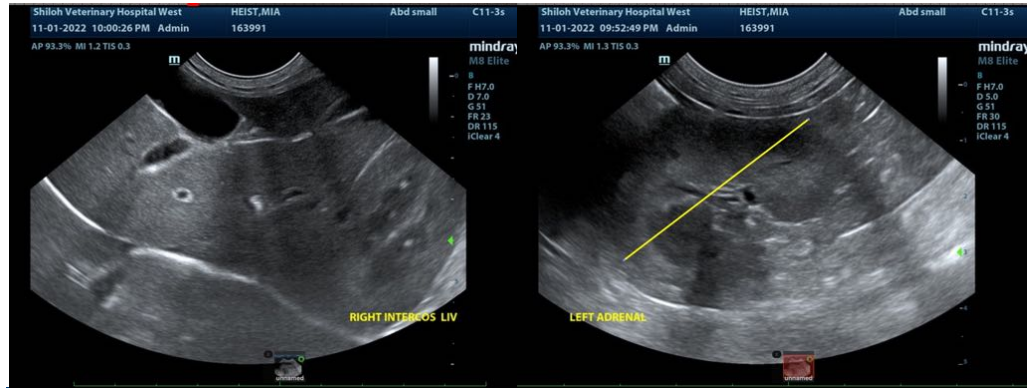
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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