



PATIENT PRESENTING CLINICAL SIGNS

PATIENT Maci Ciesiel
SPECIES Canine
BREED Pug
SEX Spayed Female
AGE 10 years
WEIGHT 57 lbs

PRESENTING CLINICAL SIGNS
 History: Obese pug presented for inappetence and PU/PD. Vomit and diarrhea as well. Diagnosed hypothyroid last year. not currently on meds
 Abnormal PE/Chem/CBC/UA Results: Glucosuria, ketonuria, Glu 577. ALT 383, GGT 16, LIPA 2378, Na140, K 6.1, CI95 WBC 17, HCT 36.3

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 1.0 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.

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.

Adrenal Glands

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 1.45 x 0.49 cm at the caudal pole and 0.29 cm at the cranial pole. The right adrenal gland measured 1.24 x 0.45 cm at the cranial pole and 0.5 cm at the caudal pole.

Spleen

The **spleen** was normal size and relatively normal contour with multifocal hyperechoic areas of mineralization. This is a benign change likely owing to the diabetic state.

Liver

The **liver** in this patient was mildly enlarged and uniform with hyperechoic parenchymal changes. There were subtle, hypoechoic heterogenous nodular changes. The gallbladder and common bile duct were unremarkable other than a minor amount of gallbladder sludge/debris.

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.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Ray Caughman

HOSPITAL NAME

Dogwood AH

REFERRING VET

Dr. Caughman

INVOICE

96760

DATE

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PATIENT

Pancreas

Maci Ciesiel

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

SPECIES

Canine

BREED

Pug

ULTRASONOGRAPHIC FINDINGS

Diabetic hepatopathy.

SEX

Spayed Female

Diabetic nephrolith.

Emerging gallbladder mucocele.

Age related pancreatic changes.

AGE

10 years

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Bile acid profile is warranted. Ultrasound-guided FNA of the liver is indicated. Urinalysis is warranted to ensure that underlying complicated UTI is not an issue. Otherwise, treatment for diabetic state, inflammatory hepatopathy and low-grade pancreatitis is indicated. FNA of the liver is recommended for further definition and refinement of therapy.

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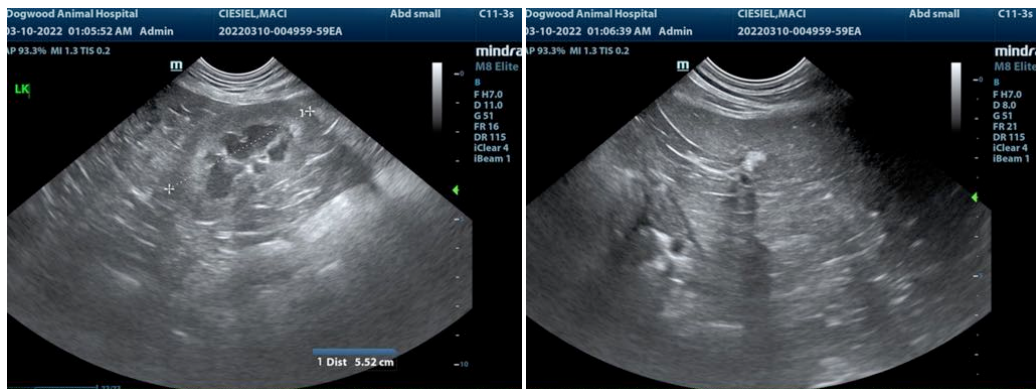
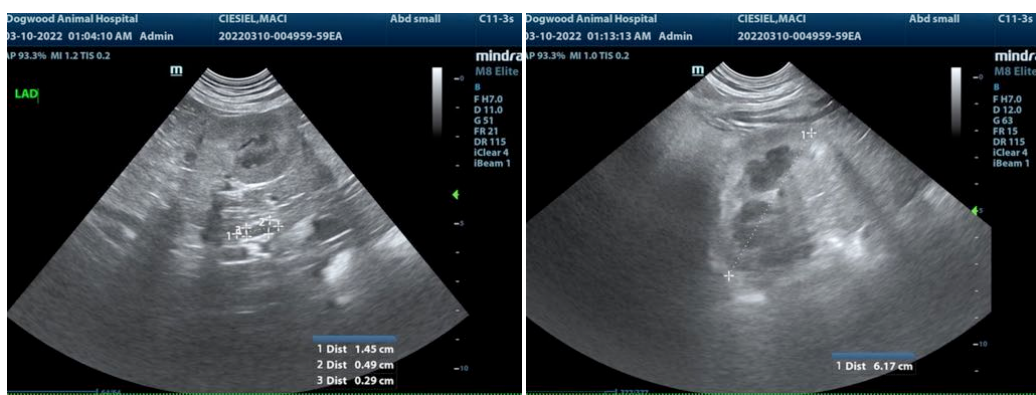
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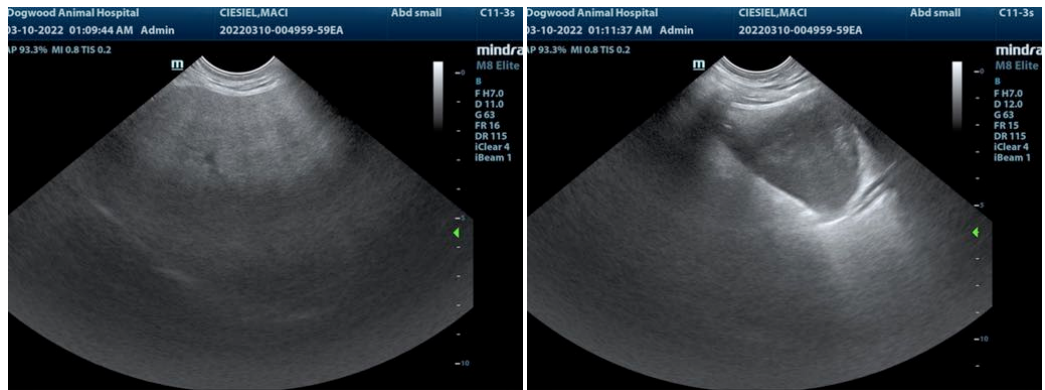
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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