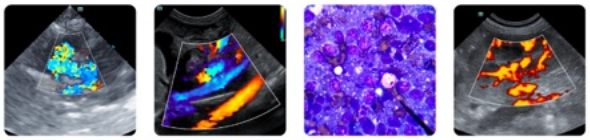


PATIENT

Kharma Warder

SPECIES

Canine

BREED

Puggle

SEX

Spayed female

AGE

11 years

WEIGHT

17.42 lbs

INTERPRETED BY

Alicia Angosto Guerrero, DMV, PgDip, MSc.

IMAGING PERFORMED BY

Christina Wagner

HOSPITAL NAME

Angeles Clinic for Animals

REFERRING VET

Dr. Zuber

INVOICE

75537

DATE

5/14/26

PRESENTING CLINICAL SIGNS

History: Owner reports PU/PD; has always drunk a lot but seems increased
Abnormal PE/Chem/CBC/UA Results: Hematology - NSF Chemistry: - H ALT 549 (18-121) - H AST 218 (16-55) 4Dx negative Normal T4 1.6 Urinalysis: SG 1.008 pH 5.5 Sediment quiet, no apparent bacteria or crystals Urine cortisol creatinine ratio 32 - normal

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder lumen is slightly underdistended, and the urinary bladder wall measures 3.35 mm and appears smooth. Due to underdistension, wall thickness may be mildly overestimated. The urine is anechoic. The bladder neck, trigone region, and proximal urethra are unremarkable. There are no calculi and no evidence of inflammatory or neoplastic changes.

The left kidney measures 4.04x2.55 cm and the thickness of the cortex is 0.45 cm in the sagittal plane. Multiple small thin-walled anechoic cystic structures are distributed throughout the renal parenchyma, the largest measuring 4.78×4.84 mm. The renal cortex is isoechoic compared to the hepatic parenchyma. The corticomedullary ratio and corticomedullary definition are preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

The right kidney measures 4.69×2.59 cm, and the thickness of the cortex is 0.49 cm in the sagittal plane. The cortex is isoechoic compared to the hepatic parenchyma. A smaller number of scattered small renal cysts are present compared to the left kidney, the largest measuring 2.25×2.24 mm. The corticomedullary ratio and corticomedullary definition are preserved. There is no evidence of pyelectasia, nephrolithiasis, or hydronephrosis. Color Doppler demonstrates a normal vascular pattern.

Adrenal Glands

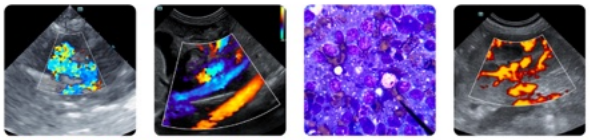
Both adrenal glands demonstrate normal shape and echogenicity. Dorsoventral diameters measured in the sagittal plane are as follows: the left adrenal gland measures 0.51 cm at the cranial pole and 0.46 cm at the caudal pole. The right adrenal gland measures 0.56 cm at the cranial pole and 0.43 cm at the caudal pole. These measurements are within normal limits for a dog of this size.

Spleen

Splenic thickness is 1.02 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

Liver

The liver is subjectively normal in size, with sharp edges and a regular contour. The hepatic parenchyma is homogeneous and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.



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The gallbladder lumen is moderately distended. The gallbladder contains a moderate amount of echogenic non-shadowing intraluminal material with a markedly organized and inspissated appearance. The contents are clumped and aggregated, forming irregular nodular-to-filamentous structures rather than simple dependent sludge. These findings are most consistent with early gallbladder mucocele formation. No evident dilation of the common bile duct is identified.

Gastrointestinal Tract

The stomach is empty and folded, with preserved wall layering and normal mural thickness (1.94 mm).

The duodenum measures 2.90 mm. The jejunum measures 1.96–2.25 mm. Wall layering is preserved throughout the evaluated small intestine. No ultrasonographic evidence of focal gastrointestinal inflammation, mechanical ileus, or foreign material is identified.

The colon wall measures 1.18 mm and is largely empty.

Pancreas

The evaluated pancreatic regions do not show evidence of overt inflammation or neoplastic disease.

Free Abdomen

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation is normal.

ULTRASONOGRAPHIC FINDINGS

- Bilateral multifocal small renal cysts, greater on the left.
- Organized/inspissated gallbladder contents consistent with early gallbladder mucocele formation.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Multiple bilateral small renal cysts are present, more numerous within the left kidney. These findings are most compatible with acquired renal cystic change and may be contributory relative to the patient's PU/PD. Despite the relatively preserved renal ultrasonographic appearance, the marked urine hyposthenuria/isosthenuria remains clinically significant and indicates impaired urine concentrating ability and/or medullary washout. Early functional renal disease cannot be excluded despite the absence of overt morphologic chronic kidney disease changes.

The liver parenchyma appears normal. The gallbladder demonstrates markedly organized inspissated non-shadowing material forming nodular-to-filamentous intraluminal structures, most consistent with early gallbladder mucocele formation rather than simple biliary sludge. Although there is currently no ultrasonographic evidence of extrahepatic biliary obstruction, cholecystitis, or gallbladder rupture, this finding is clinically relevant and may correlate with the marked ALT and AST elevations.

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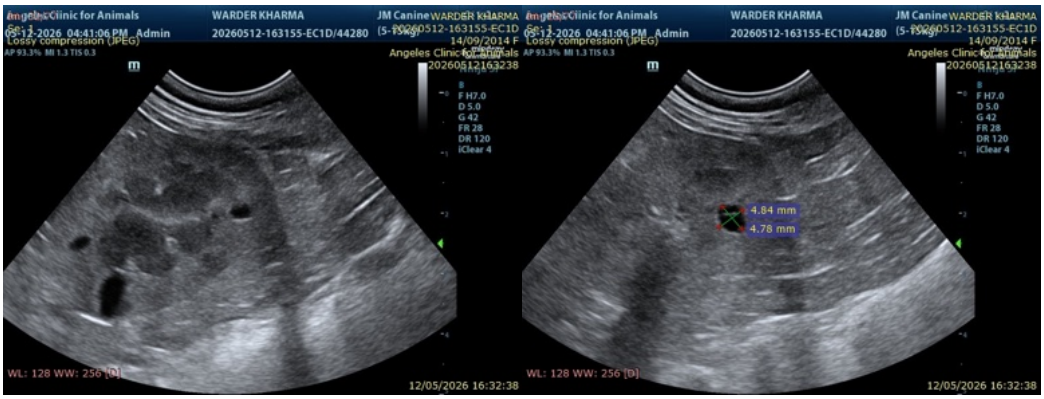
The adrenal glands appear ultrasonographically within normal limits, and the urine cortisol:creatinine ratio is reportedly normal, making classic hyperadrenocorticism less strongly supported on the currently available data. In particular, the current examination does not support an adrenal-dependent form of hyperadrenocorticism, as no adrenal enlargement or adrenal mass is identified. Nevertheless, a pituitary-dependent and/or early functional form of hyperadrenocorticism cannot be completely excluded, as some dogs may demonstrate minimal or no detectable adrenal hyperplasia early in the disease process.

Recommendations

- Medical management/supportive hepatobiliary therapy (such as ursodeoxycholic acid) may be considered at the discretion of the attending veterinarian given the early gallbladder mucocele appearance.
- Serial ultrasonographic monitoring of the gallbladder is recommended, as early gallbladder mucocele formation may progress over time.
- Correlation with repeat liver enzyme monitoring, bilirubin, cholesterol, triglycerides, and fasting bile acids may be helpful for further hepatobiliary assessment.
- Continued monitoring of renal values, SDMA (if available), urine specific gravity, hydration status, and blood pressure is recommended given the marked urine dilution.
- If clinically indicated, further endocrine investigation (such as ACTH stimulation testing or low-dose dexamethasone suppression testing) could still be considered if PU/PD progresses or if clinical suspicion for atypical/endogenous steroid hepatopathy persists despite the currently normal urine cortisol:creatinine ratio.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.



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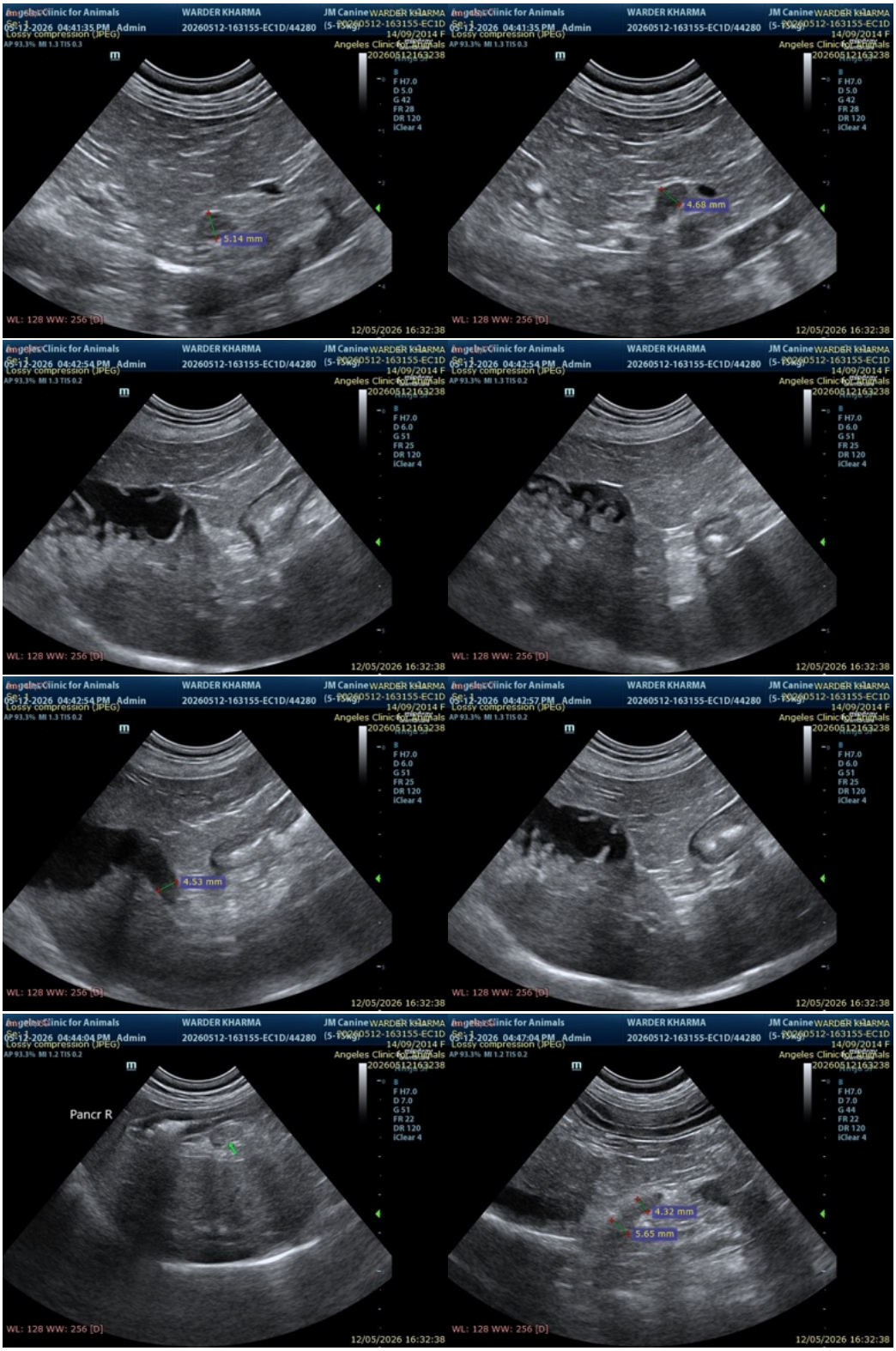

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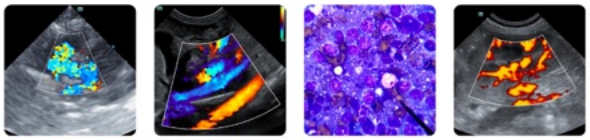

Clinical Sonography & Telecytology
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video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

Alicia Angosto Guerrero, DMV, PgDip, MSc.

info@SonoPath.com