



PATIENT

Oliver Hallewell

SPECIES

Canine

BREED

Chihuahua

SEX

Neutered Male

AGE

14 Years

WEIGHT

4 kg

INTERPRETED BY

Eric Lindquist, DMV

DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Belan

HOSPITAL NAME

Healing Traditions VC

REFERRING VET

Dr. Vockeroth

INVOICE

39175

DATE

6/30/22

PRESENTING CLINICAL SIGNS

Clinical presentation consistent with Cushings PU PD and polyphasic diarrhea
Abnormal PE/Chem/CBC/UA Results: Chronic continuous elevation of liver enzymes

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder** revealed minor apical polypoid changes with echogenic debris. The residual prostate measured 6.0 mm.

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 3.54 cm.

Adrenal Glands

The **right adrenal gland** presented normal size and contour with minor heterogeneous parenchymal changes, measuring 0.55 cm at the cranial pole and 0.55 cm at the caudal pole.

The **left adrenal gland** was technically within normal limits at 0.62 cm at the caudal pole and 0.51 cm at the cranial pole.

Spleen

The **spleen** revealed multifocal hyperechoic lipogranulomatous changes with minor heterogeneous parenchyma.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia. A hyperechoic lipogranulomatous nodule was noted in the mid liver measuring 1.03 cm.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed minor echogenic remodeling of the gastric mucosa. The small intestine and colon were unremarkable.

Pancreas

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 subxyphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

PRIMARY FINDINGS

- Moderate degenerative renal changes
- Benign hepatopathy with remodeling



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- Excessive gallbladder debris
- Minor apical polypoid changes noted in the urinary bladder
- Heterogeneous adrenal glands, measure technically within normal limits
- Age related pancreatic changes

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

PDH cannot be ruled out. However, I recommend that solid Cushingoid parameters are present such as persistent isosthenuria, elevated cortisol/creatinine ratio, and definitive LDDST. Ursodiol therapy warranted and/or gallbladder motility study. However, this is most consistent with emerging mucocele. If any inflammatory sediment is present in the urine, urine culture would be indicated.

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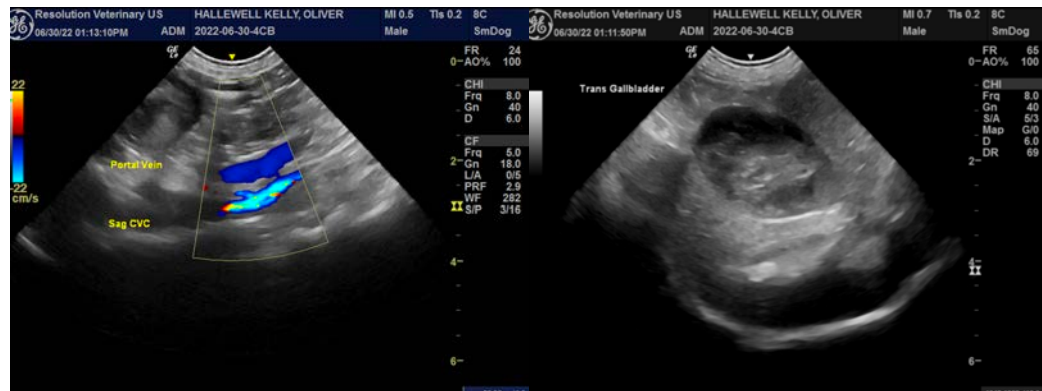
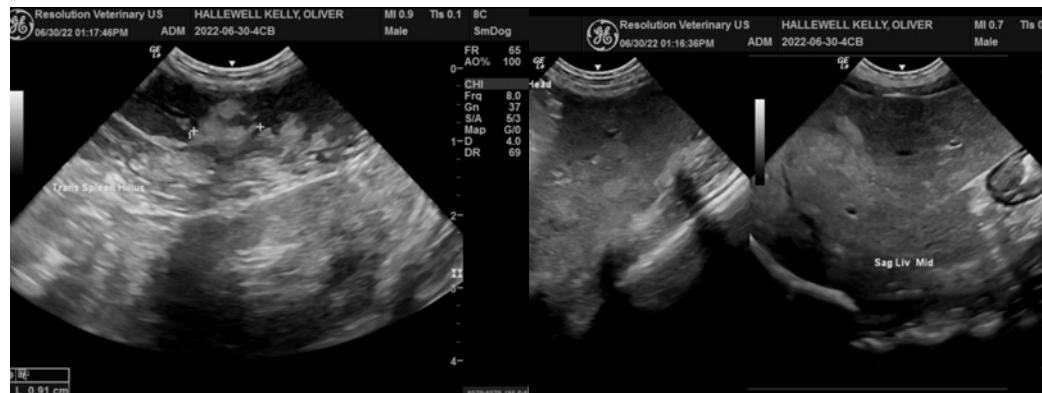
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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