



PATIENT PRESENTING CLINICAL SIGNS

Peanut Erickson progressive increases in ALKP, ALT over the past 3 years, GGT is now elevated, cardiopro BNP is elevated, CHOL is elevated, LIP is elevated. Primary Question/Differential to Be Answered in This Exam R/O Cushing's +/- mucocele +/- GB disease +/- neoplasia vs open

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

BREED

Welsh Corgi

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

SEX

Spayed Female

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measured 6.02 cm. The right kidney measured 6.21 cm. Multiple small cortical cysts are noted bilaterally.

AGE

12 Years

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The left adrenal gland measures 2.66 cm long x 0.76 cm at the cranial pole and 0.68 cm at the caudal pole. The right adrenal gland measured 2.74 cm long x 0.66 cm at the cranial pole and 0.78 cm at the caudal pole.

WEIGHT

24.1 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

IMAGING PERFORMED BY

Jenna Walsh, CVT

Liver

Liver is subjectively enlarged (swollen contour) without disruption of architecture. It has a normal homogenous echotexture. Parenchyma is diffusely hyperechoic characterized by less prominent than normal portal vein walls and increased echogenicity relative to the spleen and falciform fat. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

HOSPITAL NAME

West Hills AH

REFERRING VET

Dr. Remcho

Gallbladder is mildly overdistended with a moderate amount of non-dependent, mildly aggregated/inspissated sludge. Hypo to anechoic cystic areas are noted between the gallbladder sludge and luminal wall. The wall is otherwise smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion.

INVOICE

39890

Gastrointestinal

DATE

7/28/22

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta.



PATIENT

Peanut Erickson

There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

SPECIES

Canine

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

BREED

Welsh Corgi

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

SEX

Spayed Female

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

AGE

12 Years

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

WEIGHT

24.1 Pounds

There is no apparent lymphadenopathy noted in these images.

PRIMARY FINDINGS

- **Bilateral adrenomegaly** – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Hyperechoic hepatomegaly** - This appearance is non-specific and most consistent with a benign steroid (endocrine) or vacuolar hepatopathy or reactive or idiopathic hepatopathy. Inflammatory and/or infiltrative disease (such as round cell neoplasia) are also possible, but considered less likely.
- **Emerging mucocele** – Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. The non-dependent nature of this sludge combined with the cystic areas are suggestive, however, of possible emerging cystic mucosal hyperplasia or early gallbladder mucocele.

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

West Hills AH

SECONDARY FINDINGS

REFERRING VET

Dr. Remcho

- **Hyperechoic splenic nodules** – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- Age related kidney changes

INVOICE

39890

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

DATE

7/28/22

The described adrenal gland, liver and gallbladder changes are all suggestive of hyperadrenocorticism. If clinical signs of hyperadrenocorticism, such as polyuria, polydipsia, polyphagia, panting, hair loss, hypertension, etc. are present, testing for hyperadrenocorticism with a LDDS test is warranted. If a LDDS test has been evaluated with a normal result, investigation of possible atypical



PATIENT

Peanut Erickson

SPECIES

Canine

BREED

Welsh Corgi

SEX

Spayed Female

AGE

12 Years

WEIGHT

24.1 Pounds

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

West Hills AH

REFERRING VET

Dr. Remcho

INVOICE

39890

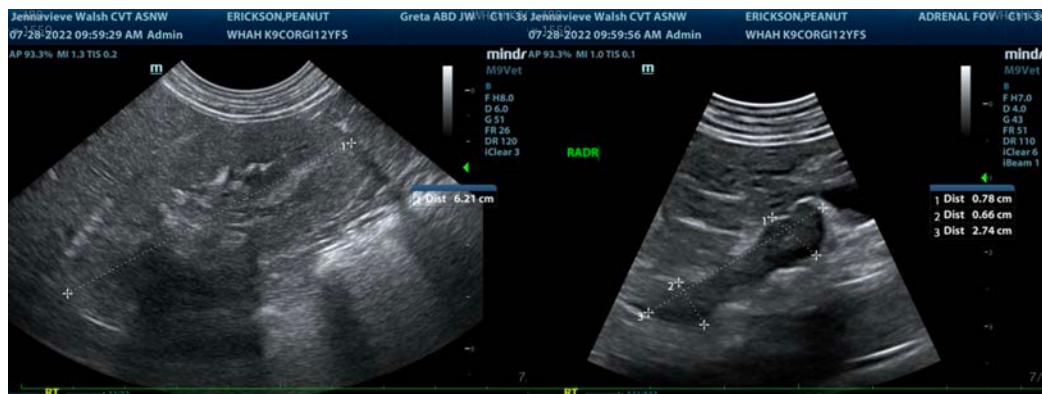
DATE

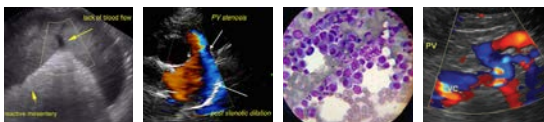
7/28/22

hyperadrenocorticism with a full ACTH stimulation adrenal panel to the University of Tennessee could be considered. If clinical signs are not present, monitoring is recommended with testing pursued when/if clinical signs develop. If not recently evaluated, blood pressure is recommended. If not recently evaluated, a urinalysis and, if indicated based on urinalysis results, urine culture are also recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ratio is recommended.

If instead of clinical signs of hyperadrenocorticism, clinical signs are more consistent with gallbladder disease, such as decreased appetite, nausea, cranial abdominal pain, etc., then medical management of the emerging mucocele with Ursodiol, broad-spectrum antibiotics, etc., or surgical management of the emerging mucocele with a cholecystectomy is recommended prior to further evaluation of hyperadrenocorticism.

An echocardiogram is recommended, given this patient's reported history.





PATIENT

Peanut Erickson

SPECIES

Canine

BREED

Welsh Corgi

SEX

Spayed Female

AGE

12 Years

WEIGHT

24.1 Pounds



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.

Beth Johnson, DVM, DACVIM

Beth.Johnson@sonopath.com

INTERPRETED BY

Beth Johnson, DVM
DACVIM

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

West Hills AH

REFERRING VET

Dr. Remcho

INVOICE

39890

DATE

7/28/22