



PATIENT

Pickles Reinerstern

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

14 years

WEIGHT

12 lbs, 12 oz

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

**IMAGING
PERFORMED BY**

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

Dr. Hallihan

INVOICE

10635

DATE

3/29/22

PRESENTING CLINICAL SIGNS

History: Elevated liver and calcium. Ionized calcium high-normal = 1.3 Current meds: Atopica 10mg 1C EOD

Abnormal PE/Chem/CBC/UA Results: ALT 226, ALK Phos 446, Calcium 12.1, Chole 416, Eos 15%

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.64 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal in size (4.57 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is minimal loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (5.04 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is minimal loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. A few nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.78 cm at cranial pole) (0.63 cm at caudal pole) (2.21 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is mildly enlarged (0.65 cm at cranial pole) (0.57 cm at caudal pole) (1.33 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

Spleen

The spleen is normal in size (1.25 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and homogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A small to moderate amount of aggregated, echogenic debris/sludge is observed within the lumen. The cystic and common



PATIENT

bile ducts are normal.

Pickles Reinerstern

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

14 years

WEIGHT

12 lbs, 12 oz

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(*Small Animal Internal
Medicine*)

**IMAGING
PERFORMED BY**

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

Dr. Hallihan

INVOICE

10635

DATE

3/29/22

Gastrointestinal

The gastric lumen is not distended. The gastric wall thickness is difficult to determine due to excessive rugal folds. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- The mild bilateral adrenomegaly may be a normal variant for this patient or may be secondary to mild hyperplastic change.
- Gall bladder sludge, non-mucocele
- An obvious cause for the elevated liver enzymes is not identified in this study. Considerations include a benign age-related process (i.e., vacuolar hepatopathy, regenerative nodular hyperplasia), or underlying pathology (i.e., inflammatory hepatopathy, hepatotoxicosis (i.e., copper), or less likely infiltrative neoplasia).

Secondary Findings

- Minor bilateral age-related renal changes with nonobstructive nephrocalcinosis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the hypercalcemia, a rectal examination to assess for anal sac masses is recommended along with three-view thoracic radiographs to assess for evidence of occult neoplasia in the chest. Also consider a PTH/PTHrP/ionized calcium.
- Regarding the elevated liver enzymes, pre- and post-prandial serum bile acids. If the patient is asymptomatic and a conservative approach is desired, consider rechecking the liver values in 3-4 weeks to assess for progression. If a more aggressive approach is desired, consider hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy). If surgery is pursued, aerobic and anaerobic bile cultures and acquisition of additional hepatic tissue samples for potential copper quantitation should be obtained. Also consider Leptospirosis testing, particularly if the liver enzyme elevations are acute in nature.



PATIENT

Pickles Reinerstern

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

14 years

WEIGHT

12 lbs, 12 oz

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

**IMAGING
PERFORMED BY**

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

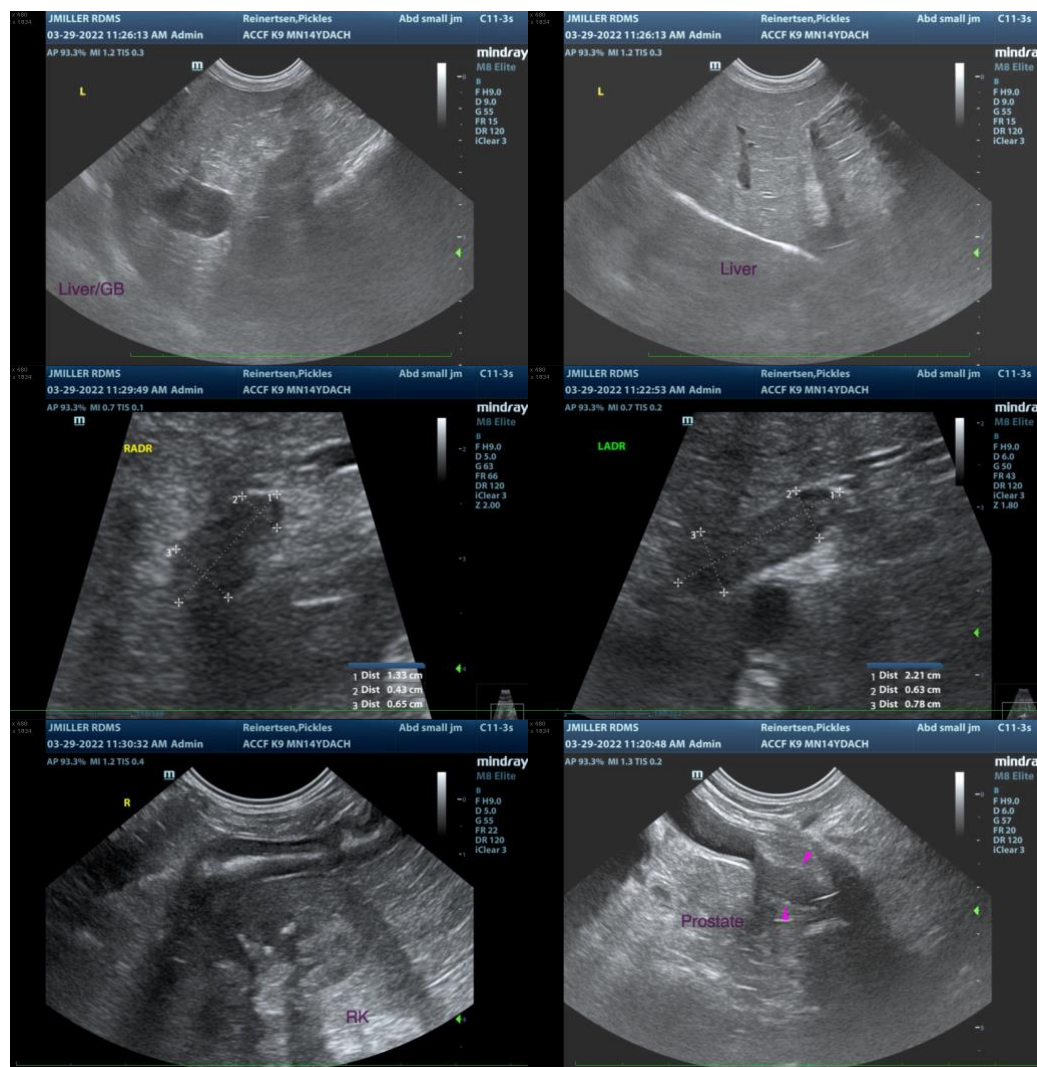
Dr. Hallihan

INVOICE

10635

DATE

3/29/22





PATIENT

Pickles Reinerstern

SPECIES

Canine

BREED

Dachshund

SEX

Neutered Male

AGE

14 years

WEIGHT

12 lbs, 12 oz

INTERPRETED BY

Andrea Nicastro, DVM,
Diplomate ACVIM
(Small Animal Internal
Medicine)

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

ACC Flanders

REFERRING VET

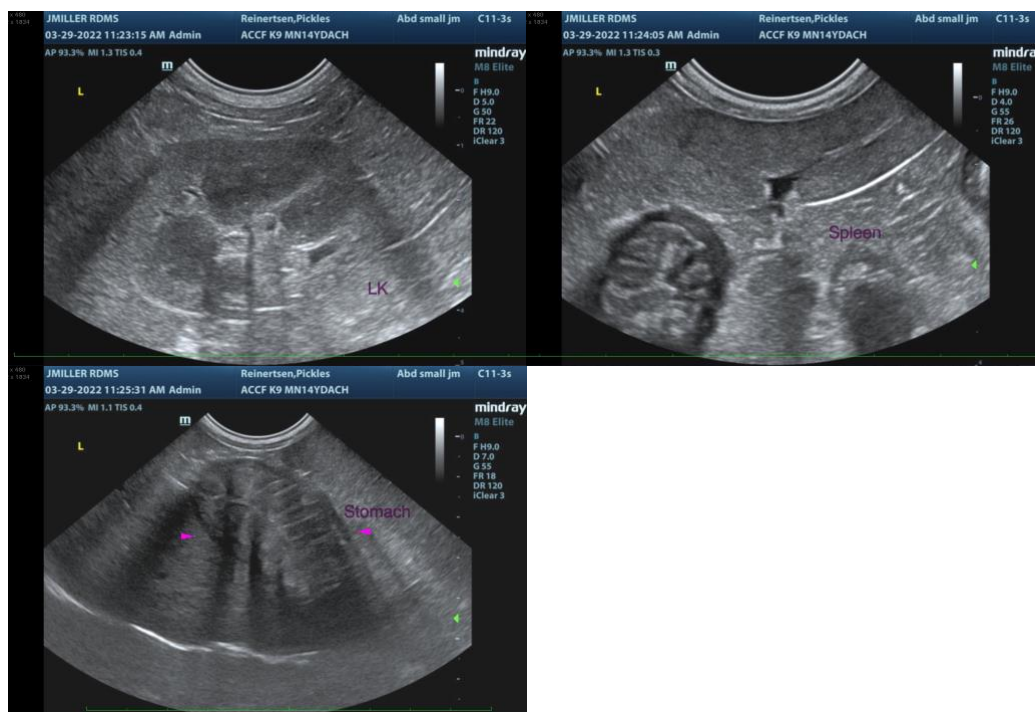
Dr. Hallihan

INVOICE

10635

DATE

3/29/22



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.

Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com